1. Introduction: Aim and scope of the paper

It is a standard assumption in generative analyses that syntactic structure is to a large extent invariant across languages. Typically, it is assumed that syntactic constituents are formed according to the X-bar format, in which constituents are merged in a binary system: a head (X°) combining with a complement – itself a maximal projection - to form a syntactic unit, usually labelled X’, which in turn combines with a specifier – a maximal projection - to form a maximal projection (XP). Obviously, observed cross linguistic differences in constituent order need to be accounted for. This paper compares a number of different approaches to the derivation of the sentence-final position of the verb in embedded clauses in the West-Germanic OV languages, such as Dutch and German. The paper concentrates entirely on West Flemish (WF), but I assume that my conclusions will be valid for the other West Germanic OV languages. The relevant patterns are illustrated for WF in (1):

(1) a. da Valère nen boek leest
    that Valère a book reads
    'that Valère reads a book'

     b. da Valère nen boek no Gent stiert
    that Valère a book to Ghent sends
    'that Valère sends a book to Ghent'

     c. da Valère Marie dienen boek geeft
    that Valère Marie that book gives
    'that Valère gives Mary that book'

     d. mee Valère nen boek no Gent te stieren
    with Valère a book to Ghent to send
    'Valère having sent a book to Ghent…'

In (1a) the DP-object nen boek ('a book') precedes the selecting verb leest ('reads'); in (1b) the DP nen boek as well as the predicative PP no Gent ('to Gent') precede the selecting verb stiert ('sends'); in (1c) both the indirect object DP Marie and the direct object DP dienen boek ('that book') precede the selecting verb geeft ('gives'). The patterns found in embedded finite clauses are also instantiated in infinitives. In (1d), for instance, the direct object DP nen boek and the predicative PP no Gent precede the infinitival marker te ('to'), which is itself followed by the infinitive stieren ('send'). Obviously, WF differs from so called VO languages such as English in which the canonical word order is verb – complement, as suggested by the translations in (1).

In the generative tradition the difference in canonical word order between OV languages and VO languages has been accounted for in a number of ways. I will briefly outline them here and spell out some of the implementations in section 2.

(i) The account which was more or less generally adopted until the early 1990s was elaborated in seminal work by Koster (1975) for Dutch and by Thiersch (1978) for German.
(see Zwart 1993, 1997a, 1997b for a critical survey of the literature). In this approach, it was assumed that V universally merges with its object to form $V'$. The OV/VO contrast was accounted for in terms of parametric variation in the base order, with VO-languages being head-initial and OV-languages being (at least partly) head-final\(^1\). This position entailed that OV orders and VO orders have a hierarchically identical underlying structure ($V'$ dominates the object, for instance) and that they differ in terms of the linearisation of the verb and its complement ($V$ is to the right/left of its complement).

(ii) Since the early 1990s, though, antisymmetric approaches inspired by Kayne (1994) have been proposing that the base structure of all syntactic constituents is not only invariant with respect to the hierarchical relation of the constituents but that linearisation is also uniform across languages, with heads always preceding complements. It is also proposed that all movement is leftward. This proposal obviously is conceptually attractive as it gives rise to a simpler grammar, eliminating complement-head base structures and eliminating rightward movement\(^2\). Kayne’s seminal work has given rise to a number of attempts to analyse the West Germanic OV order in terms of a universal base. Essentially, these approaches account for any surface word order disparities with head-complement order in terms of (multiple) leftward movements.

In the literature there are currently at least two variants of the universal base idea to West Germanic OV languages, each with its own implementations. (iia) According to one view (Zwart 1993, 1997b, Den Dikken 1996, Koster 1994, 1999, 2000, Hinterhölzl 1999), the sentence-final position of $V$ in the Germanic OV-languages reflects a relatively low position of the verb, which is taken to either have remained in its base position or to have undergone very short movement (Koster 1994, Hinterhölzl 1999). The complement-head order is derived by leftward movement of the individual complements. Thus, for instance, Koster (1994) proposes that a predicative constituent moves leftward to check a predicate feature in the specifier of PredP; the DP object moves leftward to check its accusative case etc.

(iib) In an alternative antisymmetric approach (Pearson 1998, 1999, Haegeman 1998a, 1998d, 1999, Koopman and Szabolcsi 2000), the sentence-final position of $V$ is derived by $V$-movement to a relatively high inflectional head, followed by remnant leftward movement of an extended projection of the verb, which contains, among other things, the complements of $V$ and its trace.

Each of the approaches outlined has been executed in a number of distinct ways, which, for reasons of space, I cannot all develop exhaustively. Below I will elaborate one variant of each of the three main analyses in some more detail in order to facilitate comparison.

(i) the traditional account which assumes an OV base order (2.1.).
(ii) an antisymmetric account with little or no V-movement (2.2.), with two variants.
(iii) an antisymmetric account with double movement (2.3.).

The goal of the paper is to test the empirical coverage of the various hypothesis. Using empirical data of WF negation, I will examine if the analyses proposed can capture the surface word order of WF in a non-stipulative way. The conclusions of my comparison will be twofold. (i) The traditional account would certainly be adequate for the description of the data concerned. (ii) As far as the antisymmetric approaches are concerned, the double movement analysis (iib), which at first sight might seem rather counter-intuitive, fares better than antisymmetric approaches in which V is taken not to move (iia).

The paper is organised as follows. Section 2 elaborates upon the approaches to OV-order under examination. Section 3 explores how the approaches capture the distribution of the WF negative morpheme $en$. Section 4 examines how the approaches can account for the observed obligatory leftward movement of negative constituents and explores some
implications for the clause structure. Based on the revised structure elaborated in section 4, section 5 speculates on comparative and diachronic aspects of the syntax of sentential negation. Section 6 is a conclusion.

2. Three approaches to OV order

2.1. The 'traditional' approach

'Traditional' generative accounts of the OV/VO contrast postulated parametric variation in head-complement order. For the West-Germanic OV-languages, this was taken to mean that the functional and lexical projections constituting the IP domain are head-final, while DP, PP, and CP are head-initial. In this approach, the embedded sentence-final position of the verb is compatible with absence of V-movement (2a) or with (rightward) V-movement to a functional head of the IP domain (2b). V-movement, being rightward, will be string-vacuous (cf. Haegeman 1992, Vikner 1995, 1997).

(2) a. da [IP Valère [VP [V [nen boek] [Vº leest]]] [r]]
   that Valère a book reads
b. da [IP Valère [VP [V [nen boek] [Vº t_v]]] [r, leest_v]]

In this view, some preverbal constituents may be argued to occupy their base positions. Thus, for instance, the indefinite direct object *nen boek* ('a book') in (2a/b) has a weak reading and may be assumed to occupy its base position (cf. Diesing 1992, 1996, 1997, De Hoop 1992). Similarly, in (2c/d) the indefinite direct object *nen boek* and the predicative PP *no Gent* ('to Ghent') may be argued to form a small clause complement of V. V is in its base position in (2c) and has moved to I (2d).

(2) c. da [IP Valère [VP [V [nen boek no Gent] [Vº stierdige]]] [r]]
   that Valère a book to Gent sent
d. da [IP Valère [VP [V [nen boek no Gent] [Vº t_v]]] [r, stierdige_v]]

The non-adjacency of a complement and the selecting verb can be accounted for by postulating leftward movement of the complement. For instance, the definite direct object precedes the marker of sentential negation *nie* in (2e) and may be argued to have moved to [Spec,AgrOP] as an instantiation of object shift (Vanden Wyngaerd 1989, Diesing 1992, 1996, 1997, De Hoop 1992).

(2) e da Valère dienen boek nie no Gent stierdige
   that Valère that book not to Ghent sent

2.2. Antisymmetry with no V-movement

2.2.1. No V-to-I movement

The Antisymmetry programme (Kayne 1994) adopts a universal base approach (Koster 1994, Zwart 1993, 1997a, 1997b) according to which projections are uniformly head-initial. Here, the base position of the complements of V is taken to be to the right of the verb. According to some views, the finite verb in the West Germanic OV languages – e.g., *leest* ('reads') in WF (3) – remains in its base position. The embedded head-final order is derived by
feature-driven leftward movement of VP-constituents to the middle field, i.e. the domain demarcated to the left by the canonical subject position and to the right by the sentence-final verb. For instance, as before, the direct object may be argued to move to [Spec,AgroP] as an instantiation of object shift (Vanden Wyngaerd 1989).

(3) \[ da \ [IP \ Valère \ [\text{f}] \ [\text{AgrOP} \ dienen boek_0 \ [VP \ [V' \ [Vº \ leest \] \ t_3]]]] \]

As discussed by Donati and Tomaselli (1997), such approaches must offer a mechanism of deriving the correct linear order of all the pre-verbal constituents in the middle field. I refer to Zwart (1993), Koster (1994, 1999, 2000) and Hinterhölzl (1999) for some proposals. In recent work, Koster (1999, 2000) considers the individual checking of the each of the pre-verbal constituents in the specifiers of specialised functional projections to be a defining feature of the syntax of the West Germanic OV-languages.

2.2.2. Feature movement

Zwart's later (1997a) account of the OV-order differs from his earlier approach (1993, 1997b). In the spirit of work by Chomsky (1995), lexical items are taken to be bundles of two types of features: lexical-categorial features (LC-features) and formal features (F-features). Formal features are involved in feature checking operations (Tense, agreement, Case, \textit{wh}, etc. see Zwart 1997a: 170). Zwart continues to assume that the finite verb is spelt out in a relatively low position, but he proposes that the verb's F-features may move independently of its LC-features. In both main and embedded finite clauses, the V-features of AgrS are strong and attract the F-features of the verb. The F-features of the verb move successive cyclically via AgrO and T to AgrS. He says:

In embedded clauses, AgrS (containing the F-features of the verb) moves on to C (presumably because C attracts T, incorporated in AgrS). \textit{Since C is lexically filled}, the F-features of the verb are united with the LC-features of the complementizer. There is no need for movement of the LC-features of the verb to C. The verb therefore gets spelled out in V. (Zwart 1997a: 244, my italics).

The verb's LC-features only move as a last resort to provide a lexical support for the moved F-features. In embedded finite clauses, AgrS, with the F-features of the verb, moves to C. Since C is lexically filled by the complementizer, the F-features of the verb can be supported by the LC-features of the complementizer and there is no need for movement of the LC-features of the verb itself to C. As a result, the LC features of the verb remain in V (Zwart 1997a: 244). (4) is a representation for an embedded clause. For the sake of the presentation, I assume here that V does not move, and that the directional predicate \textit{no Gent} is part of a small clause.

(4) \[ da \ [IP \ Valère \ [\text{f}] \ [\text{PredP} \ [\text{nen boek no Gent}] \ [\text{Pred}] \ [\text{VP} \ [V' \ [Vº \ stierdige_3 \] \ t_3]]]] \]

In root clauses there is no filler for C, there being no complementizer. Movement of the LC-features of the verb is triggered by the need for a lexical host for the moved F-features of V. Zwart's account hinges on the movement of F-features with stranding of the LC-features. The status of feature movement, the constraints imposed on it, and its empirical consequences are not fully elaborated in his book. For the sake of the discussion, I will
assume that F-feature movement can be part of the grammar (but see Chomsky 1998), and that F-feature movement is constrained by locality conditions, leading to the formation of a head chain.

The question arises, though, how Zwart’s newer proposal is to be executed in infinitives. Consider the WF bracketed infinitival clauses in (5).

(5)  a. Valère ee beloofd [van die liedjes nie te zingen].
     Valère has promised [of those songs not to sing] 'Valère has promised not to sing those songs.'
   b. da Valère oa willen [die liedjes nie zingen]
      that Valère had want [those songs not sing]
      'that Valère had wanted not to sing those songs'
   c. da Valère beloofd eet [die liedjes nie te zingen]
      that Valère promised has [those songs not to sing]
      'that Valère has promised not to sing those songs'
   d. [Die liedjes nie zingen], dad ee Valère niet gewild.
      [those songs not sing] that has Valère not wanted
      'Not to sing those songs, Valère had not wanted.'
   e. Die liedjes nie zingen!
      those songs not sing
      'Don't sing those songs!'
conjunctions *en maar* were indeed to provide a lexical support to host F-features, all root coordinated clauses introduced by these conjunctions should lack V-movement, contrary to fact:

(7)  a Jan brengt het eten *en/maar* Marie koopt de wijn.
    Jan brings the food and Marie buys the wine.
    b *Jan brengt het eten en/maar Marie de wijn koopt.

Zwart (1997a) fails to discuss the syntax of infinitives. 8

2.3. Double movement: V movement and remnant movement

In independent work, both Pearson (1998, 1999) and Haegeman (1998a, 1998d, 2000a) elaborate a double movement analysis for the sentence-final position of inflected verbs. Rather than assuming that surface OV-patterns are the result of a low V-position in combination with one-by-one feature driven movement of the verb’s complements to the specifiers of functional projections dominating VP, they propose that the OV order be derived by (i) movement of the verb to a high inflectional head;
(ii) remnant movement of an extended projection of V - which contains the trace of V - to a specifier position to the left of the landing site of the verb.

(8) is a schematic representation simplified for expository reasons. The underlined XP is the remnant projection which has moved to the specifier position of the projection FP, whose head F hosts the moved verb.

(8)  a. da [Valère, su [FP, XP... [AgrOP, VP, t su, t v, nen boek]]] [pleest, t sp]]
    that Valère a book reads
    b. da [Valère, su [FP, XP... [AgrOP, VP, t su, t v, nen boek no Gent]]] [F, stiert, t sp]]
    that Valère a book to Ghent sends
    c. da [Valère, su, [FP, XP... [AgrOP, Marie, VP, t su, t v, t g, nen boek]]] [F, geeft, t sp]]
    that Valère Marie a book gives

Representations derived under the double movement view are similar to the traditional view in that it remains possible that some or all of the complements of V occupy their base position.

In the double movement approach, the landing site of V and the trigger for XP movement need to be determined. I assume in the remainder of the paper that V moves to a functional head of the I system, though the argumentation below is also compatible with and my conclusions are valid for an approach in which V moves even higher into the C system (Kayne 1994). As for the trigger of XP movement, this depends also on the landing site of V, which will determine the degree of remnant movement (cf. Pearson 1998, 1999, Koopman and Szabolcsi 2000).

It is obvious that the choice of one of the analyses may be determined by purely theoretical considerations, in that, for instance, the universal base assumption would preclude a ‘traditional’ analysis in terms of parametrised base orders, whatever its empirical merits. In this paper, I use data from WF sentential negation to evaluate the empirical coverage of the approaches outlined above. 9 A first conclusion of the paper will be that the WF negation data as such do not decide between the head-initial and the head-final analyses. However, I will also conclude that in terms of antisymmetric approaches, the double movement analysis seems to be better equipped to deal with the data than approaches in which it is assumed that
the verb does not move. Concretely, the distribution of the negative morpheme *en* provides us with arguments for postulating movement of the verb to a position higher than that often assumed in antisymmetric approaches. The distribution of negative constituents with sentential scope can also be accounted for more elegantly in terms of a double movement approach.

3. V-to-T movement and the distribution of the negative head *en*

3.1. The distribution of *en*

As described in detail in previous work (Haegeman 1995), WF negation is expressed by the combination of one or more maximal projections such as the negative marker *nie*, negative adverbials (*nooit* 'never', *nieverst* 'nowhere') and negative quantifiers (*niemand* 'no one', *niets* 'nothing') on the one hand, and an at first sight optional bound negative morpheme *en*, on the other. Though the morpheme *en* is sometimes optional in WF, its distribution is by no means totally free. For one thing, it is confined to finite verbs:

(9) a. *da Valère dienen boek niet* (en)-kuopt/(en)-kocht  
that Valère that book not (en)-buys/(en)-bought
'that Valère does/did not buy that book'

b. *Mee Valère dienen boek niet* (*en*)-te (*en*)-kuopen  
with Valère that book not (*en*) to (*en*) buy
'Valère not buying that book…'

c. *Marie goa preberen van dienen boek nie* (*en*)-te (*en*)-vergeten.  
Marie goes try of that book not (*en*)-to (*en*)-forget
'Marie will try not to forget that book.'

d. *Dienen boek nie* (*en*)-kennen is oast onmeugelijk.  
that book not (en) know is near-impossible
'To not know that book is almost impossible.'

e. *Die liedjes nie* (*en*)-zingen!  
those songs not (*en*) sing
'Don't sing those songs!'

In Haegeman (1998a, b, 2000a) I use data from the distribution of the auxiliary in the IPP construction to argue that V has (at least) two clause-internal landing sites. I summarise the discussion here and refer to my earlier work for details. Consider the position of the auxiliary in the examples below.

(10) a. *da Valère [wollen dienen boek kuopen] eet*  
that Valère want that book buy has
'that Valère has wanted to buy that book'

b. ??*da Valère ee [wollen dienen boek kuopen]*  
that Valère ee want that book buy
'don't want that book to buy that book'

c. ??*da Valère [wollen dienen boek kuopen] oat*  
that Valère want that book buy had
'don't want that book to have bought that book'

d. *da Valère oo [wollen dienen boek kuopen]*  
'that Valère had wanted to buy that book'

e. *da Valère nie [wollen dienen boek kuopen] eet*  
that Valère not want that book buy has
'that Valère hasn't wanted to buy that book'
A finite present tense auxiliary tends to follow its IPP complement, while a past tense auxiliary normally precedes it. An infinitival form of the auxiliary never precedes its IPP complement, independently of the presence of *te, which I take to instantiate infinitival I.

In previous work I have postulated two landing sites for V: the higher position, T(ense), is the position of infinitival *te, the obligatory landing site of the past tense auxiliary in (10d) and the optional (and for me slightly marked) landing site for the present tense auxiliary in (10b). The IPP complement occupies the specifier position of a lower functional head, labelled F, which obligatorily hosts the infinitival form of the auxiliary, and which may also host its present tense form, though not the past tense form. For reasons of space I cannot elaborate the full details of the analysis here, I refer to my earlier work on this issue (Haegeman 1995b, 1998a, 1998b). (11a) is a schematic summary.

(11) .a. T [IPP] F
    ?eet -eet
    oat *oat
    te *een

Haegeman (1995) signals a finite/non-finite asymmetry in the distribution of the negative morpheme *en but does not account for this satisfactorily. The IPP data in (12) shed light on this issue. The present tense form of the verb is compatible with *en in the higher position labelled T, but it is incompatible with it in the lower position, F. This suggests that the negative morpheme *en depends on T for its licensing.\(^\text{10}\)

(12) a da Valère nie (en)-ee [willen dienen boek kuopen]
    b da Valère nie [willen dienen boek kuopen] (*en)-eet
    c da Valère nie (en)-oa [willen dienen boek kuopen]
    d *da Valère nie [willen dienen boek kuopen] (en)-oat

Recall that T cannot be a landing site for WF infinitives. Hence, infinitives will be incompatible with *en. Since a past tense verb obligatorily moves to T, as shown above, (12d) is doubly ungrammatical: the past tense V *oat cannot remain in F and *en is not licensed in F.

(11) .b. T [IPP] F
    en-eet (*en)-eet
    en-oat *en-oat
    (*en) te (*en) een
3.2. An analysis

There are various ways of integrating the morpheme *en* into the clause structure. (13) provides a schematic representation for a number of clause types assuming a universal base. The structure will be elaborated below (esp. Section 5).

(13) TP
    /
   T'
   T   FP
    /
   F
   F
finite V
   finite V
   [+past]  [-past] Neg'
   te
   infinitive
   Neg° …VP

Let us suppose that the morpheme *en* is merged in Neg°, and that it has both a V feature and a T feature to check. This entails that *en* can be licensed by incorporating into a V in T. The WF finite verb can move to T, the past tense form always moves to T and the present tense may do so. If *en* incorporates into a finite V which moves to T, *en* will meet both its licensing requirements. On the other hand, infinitives never move to T, by assumption. Thus, if *en* incorporates into an infinitival V, *en* can only satisfy its V-requirement but it will not be able to license its T-requirement.

Let us now return to the approaches to the OV surface order presented above and examine how the distribution of *en* can be accounted for. It is hard to see how one could maintain an approach according to which V fails to move at all or moves only to what Koster (1994) refers to as Pred, the head of a PredP, a low projection. Notably, it is not obvious how such an approach could deal in a non-stipulative way with the observed asymmetry between the distribution of tensed verbs and infinitives in the IPP construction and of the morpheme *en*. To integrate the observed effects of V-to-I movement in antisymmetric approaches with only restricted V-movement, we would presumably have to postulate two additional very low inflectional heads, T and F, which can be the landing site for V-movement. If the negative morpheme *en* is merged in a specialised functional head, then we need to further postulate a third projection NegP, where TP dominates NegP. If the highest position attained by V is Pred°, then all these projections would have to be lower than Pred°, which is perhaps rather counterintuitive since Tense and Negation do not seem to be part of the predicate in any plausible way. Since we have seen that V does not always move as high as T but may remain in the lower F, we might continue to assume that the finite V can move to Pred, but we will have to assume that this is not always the case and that the present tense verb without *en* and the infinitive remain in F. It is hard to see how this distinction can be made to follow and how tense or negation can be made to interact with movement of V to Pred.

(14) a. da [Valère … [PredP {nen boek no Gent}] [Pred Stierdige₉] [TP [T tv] [FP [F tv] [NegP [Neg tv] [VP [V [v=tv] t]]]]]]
    b. da [Valère … [PredP {nen boek no Gent}] [Pre₉] [TP [T tv] [FP [F stierdige₉] [NegP [Neg tv] [VP [V [v=tv] t]]]]]]
Presumably, we might propose that in infinitival clauses with *te* it is *te* which moves to Pred°.

(14)  c.  
\[
\text{mee [Valère ... [PredP [nen boek no Gent]]]}
\]
\[
\text{[Pred t] [TP [T t] [FP [F stieren,] [NegP [Neg t] [VP [V [V° t] t]]]]]]
\]

In order to capture the observed properties of WF V-movement and its relation to the negative morpheme along the lines of Zwart's feature movement account (1997a), we will also have to enrich the structure along the lines sketched above. For finite past tense clauses we would end up, roughly, with (15a) or (15b).

(15)  a.  
\[
\text{da [Valère ... [PredP [nen boek no Gent]] P_{pred}}
\]
\[
\text{[F-features]}
\]
\[
\text{[TP [T stierdige_v] [FP [F t] [NegP [Neg t] [VP [V [V° t] t]]]]]]
\]
\[
\text{[LC-features]}
\]

b.  
\[
\text{da [Valère ... [PredP [nen boek no Gent]] P_{pred stierdige_v}}
\]
\[
\text{[F-features]}
\]
\[
\text{[TP [T t] [FP [F t] [NegP [Neg t] [VP [V [V° t] t]]]]]]
\]

It is not clear, however, why there should be any overt intermediate V-movement to Tense at all in WF. If F-features can move by themselves, why should they pied pipe the LC features half way? It is not obvious how to account for what seems like a two step movement: both F-features and LC-features of the finite verb would be argued to move to the lower head F or to Tense. Then, regardless of the surface position of the finite V, the F-features split off and move higher, stranding the LC-features in the intermediate landing site. It is also not clear how this F-feature movement handles *te*-infinitivals.

In the alternative antisymmetric approach (Haegeman 1998a, 1998b, 2000a, Pearson 1998, 1999), V moves to F or to T. The heads F/T are relatively high in the structure. The observed sentence-final position of V in the OV languages is derived by the leftward remnant movement of a projection containing, among other things, the V-trace.

I add that the data can also be captured naturally in the traditional OV approach, as I have shown in Haegeman (1995, 1998a,b). For reasons of space I will not repeat the discussion here.

4. Neg-movement and NegP

The distribution of negative constituents with sentential scope in WF provides another way of evaluating the proposals for deriving verb-final order. In addition, as we will see, the data help us determine the hierarchy of functional projections in the Germanic middle field.

4.1. Neg-movement

In the Germanic OV languages, as well as in the Scandinavian VO languages, negative quantifiers such as WF *niemand* (‘nobody’), *niets* (‘nothing’), etc. obligatorily undergo leftward movement when they take sentential scope (Haegeman and Zanuttini 1991, 1996; Haegeman 1995; Watanabe 1998; Svenonius 1998; for German see Hamann 1993, Zinsmeister 1995; for Norwegian see Christensen 1986, Hoekstra 1995:123, Zinsmeister 1995, Kayne 1998; for Danish see Zinsmeister 1995:39-40; for Icelandic see Jónsson 1996:86). WF is illustrated in (16). 12 While a non-negative PP complement of an adjective
such as ketent (‘contented’, ‘satisfied’) would either precede or follow the adjective or might be extraposed, a negative complement must precede the adjective:

(16) a. da Valère van niets ketent (en) was
dat Valère of nothing satisfied (en) was
tdat Valère wasn't pleased with anything.
b. *da Valère ketent van niets (en) was
c. *da Valère ketent (en) was van niets

In Haegeman (1995) and Haegeman and Zanuttini (1991, 1996) these data are interpreted in terms of the Neg Criterion, a feature matching requirement which imposes that a negative quantifier with sentential scope be in a specifier-head configuration with a negative head. It is assumed that en is the relevant head. The effects described there can obviously also be translated into some version of feature checking along Minimalist lines. In what follows I examine how the three approaches to OV order fare in the light of the Neg-movement data.

4.2. Neg movement in the traditional approach to the OV pattern

In a traditional approach to OV orders, the application of the Neg Criterion (or its translation in terms of checking theory) raises no particular problems. Assuming that the inflectional projections of the WF I-domain are head-final, we do not expect the negative head en to be adjacent to a negative quantifier that has a specifier head relation with it. The negative head moves rightward to T, while the negative constituent moves leftward to a specifier position. The past tense V reaches T; the present tense V reaches T (with en) or it remains in F; the infinitive reaches F. Cyclic movement of V to F creates a head-chain and makes the[ NEG] feature that originates in Neg° accessible to higher functional heads such as AgrO. Putting it differently, the head chain <F, AgrO, Neg, V>, turns projections dominating NegP such as AgrOP into an extended projection of NegP (in the sense of Grimshaw 1991). A negative object which has shifted to [Spec, AgrOP] for case reasons, meets the Neg Criterion in [Spec, AgrOP]. On the other hand, a VP-internal negative constituent will not be able to meet the Neg Criterion because it will not be in a spec-head configuration or in an extended spec-head configuration with Neg (see also Haegeman (1995)). For this implementation to work we must assume that F, the landing site of the infinitive, must be higher than AgrO, but lower than T.
(17). a. TP
   |  
   T'  
   |  
   FP  
   |  
   Spec  
   |  
   AgrOP  
   |  
   Spec  
   |  
   AgrO'  
   |  
   niets  
   |  
   NegP  
   |  
   Spec  
   |  
   Neg'  
   |  
   Nie  
   |  
   VP  
   |  
   Neg  
   |  
   V'  
   |  
   V  
   |  
   t_v  

b. TP
   |  
   T  
   |  
   FP  
   |  
   Spec  
   |  
   AgrOP  
   |  
   Spec  
   |  
   AgrO'  
   |  
   niets  
   |  
   NegP  
   |  
   Spec  
   |  
   nie  
   |  
   VP  
   |  
   Neg  
   |  
   V'  
   |  
   V  
   |  
   t_v
The effects of WF leftward Neg-movement are, to the best of my knowledge, identical in clauses with *en* and those without. I have been assuming that clauses without overt *en* contain a projection NegP with abstract head. In infinitives, V moves to F, we assume that movement is cyclic and that the infinitive passes through (abstract) Neg and creates the required head chain. This execution of the analysis perhaps raises a problem concerning the dependency of Negation on Tense (Laka 1990, Zanuttini 1996). Apparently, while an overt Neg°, *en*, must be licensed by movement to T, an abstract Neg° does not require checking by movement to T. If it did, we would have to assume that the abstract Neg excorporates from F to move to T. Note that we cannot propose that the abstract Neg moves in one step to T, independently of V-movement. One step movement of Neg° to T would violate the locality condition on head-movement. Moreover, if the movement bypasses AgrO it will fail to create the required head chain and we would lose the account for how negative direct objects in the specifier of AgrOP without *en* satisfy the Neg criterion.

The discussion above leads us to conclude that when Neg° is non-overt it need not be licensed by movement to T. The question arises what this implies for the relation between negation and tense postulated, for instance, by Laka (1990) and Zanuttini (1996). Let us examine some options. (i) Either the observed correlation between Negation and Tense should be limited to cases where Neg° is realised overtly. This restriction would have to be independently motivated, though. (ii) We might argue that a local relation between T and Neg° is sufficient to license an abstract Neg°. If abstract Neg° incorporates to V on its way to F, FP becomes an extended NegP. FP being selected by TP, T has a local relation with the extended head of NegP. This hypothesis raises the question why a local selection relation between T and Neg° does not suffice to license overt Neg° (*en*) in F, as shown by the fact that the present tense verb with *en* cannot remain in F. (iii) The third option, which I develop in more detail in section 5, departs more radically from that elaborated above. It dissociates the spell out of *en* from NegP, the projection whose head is associated with sentential negation and with the [NEG] feature involved in the Neg Criterion. I postulate that the canonical marker of sentential negation *nie* is merged as the specifier of NegP. As before, NegP is dominated by AgrOP, and V-movement to F creates a head-chain, making the [NEG] feature accessible to negative objects in [Spec,AgrOP]. *En* is not Neg°. Rather, it merges as the head of another functional projection higher in the structure. I provisionally label this projection PolP. PolP dominates FP and is dominated by TP.

\[(18) \quad TP>PolP>FP>AgrOP>NegP>VP\]

I will propose in section 5 that while NegP encodes sentential negation, PolP is emphatic. PolP selects an extended NegP as its complement. If we continue to assume that *en* has both a V feature and a T feature to check, then it still follows that *en* is only admitted in finite constructions.

### 4.3. Neg-movement and Antisymmetry

#### 4.3.1. No movement of the verb

An antisymmetric approach without V-movement (or with very short V-movement) such as that advocated by Zwart (1993, 1997b) and Koster (1999, 2000), is not easily compatible with the WF Neg-movement data. If the finite V moves to Pred or remains in V, and the negative
DP moves to [Spec,AgrOP] for case reasons, the latter will neither be adjacent to the negative head *en* in Pred°, nor to Neg°. In (19a) I assume V is in Pred.

\[\begin{align*}
(19) \text{a. } & \text{ da [Valère [AgrOP nietₚ [Pred no Gentₚ [Pred en-stierdigeₗ [TP [tₘ [fp [fₚ tₜ] [NegP [Neg tₜ] [VP [v [vₜ tₜ] [tₒ tₚ]])]])]])]])} \\
\end{align*}\]

We might assume that (i) *en* heads one projection, PolP, whose role is to underscore sentential polarity, and that (ii) negative quantifiers and/or *nie* attain a specifier-head relation with a distinct abstract head Neg°. But we would have to assume that the emphasising PolP (associated with *en*) is lower than NegP (associated with *nie*), the domain it emphasises. This is not very compelling and also does not find cross-linguistic support (Cormack and Smith 1998 and Holmberg 2001 have a high PolP).

\[\begin{align*}
(19) \text{b. } & \text{ da [TP Valère [tₚ [AgrOP dienen boekₚ [NegP nie [Neg ] [Pred no Gentₚ [Pred en-stierdigeₗ [TP [tₘ [fp [fₚ tₜ] [PolP [Pol tₜ] [VP [v [vₜ tₜ] [tₒ tₚ]])]])]])]])} \\
\end{align*}\]

Moreover, this proposal remains empirically inadequate, as shown by (19c). If *nie* merges as the [Spec,NegP], it is hard to see how a non-adjacent indirect object *niemand* (‘no one’) can satisfy the Neg Criterion.

\[\begin{align*}
(19) \text{c. } & \text{ da Valère niemand dienen boek nie gegeven en-eet.} \\
\text{that Valère no one that book not given en-has} \\
\end{align*}\]

One solution is to allow abstract movement of the F-features of the negative head. This move implies the mechanism of feature movement, to which we turn in the next section.

### 4.3.2. F-feature movement.

An approach in which it is assumed that the LC-features of V undergo no movement or short movement to Pred, and in which its F-features move to AgrS/C at first sight seems to fare better with respect to the application of the Neg Criterion. Much in the spirit of the traditional analysis outlined in 4.2., F-feature movement may be taken to create a head chain and to make the NEG-feature of Neg° accessible to specifiers of the projections dominating NegP such as [spec,AgrO]. Schematically, the relevant structure would be as in (20).

\[\begin{align*}
(20) \text{a. } & \text{ da+FF[Neg] [IP Valère [fₚ [AgrOP geen boekₚ [Pred no Gentₚ [Pred ] that Valère no book to Ghent [TP [tₚ en-stierdigeₗ [FP [fₚ tₜ [NegP [VP [v [vₜ tₜ] [tₒ tₚ]])]])]]])]} \\
\end{align*}\]

While the F-features of the finite V move, the negative head *en* itself remains stranded on the verb in T (or in Pred, in an alternative execution of the proposal). Recall that it is crucial that the NEG feature move along as one of the F-features, as otherwise a negative constituent which is not adjacent to Neg°, cannot meet the Neg-criterion.

Since infinitival clauses display the same distribution of negative quantifiers as finite clauses (Haegeman 1995), we will need to assume that F-feature movement is equally available in infinitives. As discussed in section 2.2.2., this conclusion raises questions as to the constraints on F-feature movement with LC-feature stranding, since there is not always an obvious lexical host for the moved F-features.
4.3.3. Neg-movement and the double movement analysis

Let us finally turn to the double movement approach. I will start from the clausal hierarchy in (36). A fronted negative constituent will be able to reach a specifier-head relation with the head chain \(<(T,F,\text{AgrO, Neg, V})>\), created by V-movement to F (for infinitival V) or to T (for tensed V).

(21) \[ \text{TP} \rightarrow \text{FP} \rightarrow \text{AgrOP} \rightarrow \text{NegP} \rightarrow \text{VP} \]

Let us consider the implementation of the analysis in some detail.

4.3.3.1. THE LICENSING OF EN

For finite clauses, I have been assuming that V moves at least to F and that it may move to T. The latter movement is obligatory when the verb is in the past tense and/or when it is associated with the negative morpheme \(\text{en}\). If we assume that the negative head \(\text{en}\) is licensed in T, V-to-T movement of a present tense verb becomes obligatory due to the presence of \(\text{en}\). I continue to assume that infinitives lack Tense features and hence can never move to T. Consequently, an infinitive with \(\text{en}\) crashes.

The head final V position is achieved by remnant movement of the complement of F, i.e. an extended projection of V, which (minimally) includes the trace of V and AgrOP, NegP and VP. (22a) is a structure for finite embedded clauses. (22b) illustrates infinitives. As the latter never can reach T, the negative affix \(\text{en}\) cannot be licensed.
4.3.3.2. Negative Sentences without *en*

In a negative sentence without *en*, the observed distribution of negative constituents such as *niemand* ('no one'), *niets* ('nothing'), *etc* is identical to that of a sentence with the overt negative morpheme. Specifically, leftward movement (16) remains obligatory for all negative constituents with sentential scope. I assume that even in the absence of *en*, the Neg criterion remains operative. Negative clauses without *en* contain a NegP with an abstract Neg°.

The conclusions we reach with respect to the licensing of the non-overt Neg are the same as those discussed in section 4.2. concerning the traditional OV-analysis. If the hierarchy of projections is as in (23), the abstract negative head must be licensed independently of movement to T. To capture the observed dependency of *en* and T familiar from the literature (Laka 1990, Zanuttini 1991) we may again resort to one of the options outlined in section 4.2. I briefly recall them here. (i) The observed correlation between Neg and Tense is limited to cases where Neg is overt. (ii) Abstract Neg is licensed by the local selection relation between T and FP, the extended NegP. (iii) We dissociate *en* from the functional projection involved in the Neg-criterion. The canonical marker of sentential negation *nie* is merged as the specifier of a sentential NegP, situated under AgrOP. *En* heads a higher projection PolP, situated between TP and FP. *En* has both a V and a T feature. The finite V moves to T, and *en*, the head of Pol°, left-adjoins to T. A non-finite verb moves to F; even if *en* were to move to the non-finite T, it could only satisfy its T feature and will fail to meet the V-requirement.
5. Speculation on sentential negation: PolP and NegP

We have had to introduce a distinction between the licensing of non-overt Neg° and that of overt Neg° en. If en is the overt variant of Neg°, we conclude that the licensing conditions of overt Neg° and those of its non-overt counterpart differ. While en depends on movement to T, its non-overt counterpart would be licensed by being in a local relation with T.

An alternative option suggested in (23) is that, contrary to Haegeman (1995), the negative head which triggers leftward Neg-movement of negative constituents with sentential scope is not spelt out as en, but rather this head is realised as a (low) abstract head, Neg°. En itself heads an independent higher negative projection, labelled PolP. This projection serves to reinforce sentential negation as expressed by NegP. PolP selects an extended NegP, thus leading to a dependency between the presence of en and the presence of another negative constituent with sentential scope.

(24) a. da Valère dienen boek *(nie) en-kent
   that Valère that book *(not) en-knows

   b. da Valère niemand/*entwien en-kent
      that Valère no one/*someone en knows

The question arises if there are any arguments for distinguishing en from Neg°. In this section I advance some evidence which might bear out such a proposal.
5.1. NegP and PolP

In my idiolect, the morpheme *en* serves to emphasise the negative polarity of the clause. It may, for instance be used in the following exchange.

   'Can you give me Valère’s phone number?'
   give me once Valère his phone number
b. B: k’en een-k ik Valère zenen telefon nie.
   'I don't have Valère's number.'
   I en have -I I Valère his phone not
c. B: kzeggen jen toch dan-k em nie en een.
   'I am telling you I don't have it.'
   I say you particle that -I him not en have

In both (25b) and (25c) the presence of *en* emphasises the negation in the face of a positive presupposition of the interlocutor.  

The presupposition-reversing function of *en* is also clear in conditionals. In (26), a conditional without *en* is neutral with respect to the speaker’s expectations as to the weather, but with *en* it implies strongly that the speaker expects rain.

(26) Oat nie (en) regent, moe-j de blommen woater geven
   if –it not (en) rains, must-you the flowers water give
   In WF there is also one exception to the general dependency of *en* on a negative constituent. In (27) *en* occurs in a rejoinder such with VP deletion and *do* support.

(27) A: Valère verkuopt da nie.
   Valère sells that not
   'Valère doesn't sell that.'
   B: J'en doet. Je verkoopt da wel. K'en der gisteren gekocht
   he en does - he sells that indeed - I have some yesterday bought.
   'He does. He does sell that. I bought some yesterday.'

The rejoinder *j'en doet* reverses the polarity of the preceding utterance. The speaker wants to say that 'Valère doesn't not sell that'. The use of *en* to reverse the polarity is non-productive and archaic. It is restricted to contexts such as (27) and replacing the present tense *doet* by the past tense *deeg*, leads to ungrammaticality.

(28) A: Valère verkochtigde da nie.
   Valère sold that not
   'Valère didn't sell that.'
   he en did. he sold that indeed.

5.2. Romance data

Zanuttini (1997a,b) proposes that some Romance languages have a specialised negative marker whose role is to deny positive presupposition. She associates such negative
markers with a specialised presuppositional NegP located high in the clause. Non-presuppositional NegP simply negates the sentence and is located lower in the structure. To some extent, the function of Zanuttini's presuppositional Neg° resembles that of WF en. However, WF Pol, spelt out by en, must be different from Zanuttini's Romance presuppositional Neg°. Zanuttini's presuppositional NegP can negate the clause all by itself, and it adds the overtone of denying a presupposition. WF PolP, headed by en, cannot express sentential negation all by itself. The function of en is that of strengthening negation independently expressed by the lower NegP. WF PolP selects NegP with an abstract head and the locus of sentential negation is this lower NegP. The overt signal of negation is either nie, by hypothesis in [Spec,NegP], or a negative quantifier which will occupy a higher specifier and which will have a specifier-head relation with the negative feature on the head chain created by V-movement.

5.3. Jespersen's cycle revisited (Van Kemenade 2000)

It has been observed that the expression of sentential negation is often subject to diachronic change. This development, known as Jespersen’s cycle, is summarised by Van Kemenade (2000: 56) as follows:

(29) Jespersen’s cycle (Van Kemenade 2000: 56)
Stage 1 negation is expressed by one negative marker,
Stage 2 negation is expressed by a negative marker in combination with a negative adverb or noun phrase,
Stage 3 the second element in stage 2 takes on the function of expressing negation by itself; the original negative marker becomes optional,
Stage 4 the original negative marker becomes extinct

An analysis of WF en as the head of a relatively high projection PolP, distinct from a lower NegP, provides us with another illustration of this diachronic development of the expression of sentential negation. I assume that WF en descends from the Old Dutch negative head (en, ne) which was capable of independently expressing sentential negation (Burridge 1993, Hoeksema 1997). The effects of Jespersen's cycle can then be observed for WF, but with a twist. WF has certainly reached Van Kemenade’s stage 3: what used to be the overt head of NegP, the negative morpheme en, has become redundant in terms of the expression of sentential negation. However, en has not become extinct. Rather, in an alternative stage 4, en has become reanalysed as the spell out of a distinct head, Pol°; its function is now to underscore the negative polarity.

On a speculative note I would therefore propose that WF provides evidence for Jespersen’s cycle but that, for an adequate account, one needs to also take into consideration the interplay between the various functional projections responsible for encoding negation and polarity in the clause. While starting out as the head of the low NegP, en becomes reanalysed through time as the head of the higher PolP. This conclusion in fact seems to be in line with Van Kemenade’s own conclusions (2000: 74, my italics):

If it is correct to postulate two NegPs …it would seem that the history of negation is shaped by a delicate interplay between the high and the low negation position: low in early Old English; high in late Old English and early Middle English; low again in late Middle English and early Modern English. There may be a cycle here as well.
6. Negation and OV orders: summary

In this paper I have compared the empirical coverage of a number of hypotheses to derive the West Germanic canonical OV order. The empirical data used to test the hypotheses concern (i) the distribution of *en* and its place in the functional hierarchy of the clause, (ii) leftward Neg-movement and the application of the Neg criterion.

First I have assumed that *en* heads a NegP whose head triggers Neg-movement. This poses no particular problems for accounts which allow V or its functional features to move to a high functional head. By postulating a relatively low NegP we can assume that V-movement creates a head chain and thus makes the NEG feature accessible to higher specifiers. An antisymmetric approach *without* movement of V or of its F-features cannot make accessible the NEG feature of Neg° to a non-adjacent negative constituent in a higher specifier. For the more recent F-feature movement account to work, we must assume that F-feature movement also applies to infinitives, which was shown to raise questions concerning the constraints on F-feature movement.

In a further step in the analysis I propose to dissociate *en* from the expression of sentential negation, Neg°, and to postulate two functional projections (i) PolP whose function is to underscore sentential negation and (ii) NegP which encodes sentential negation. In the antisymmetric approaches which do not postulate high V-movement this hypothesis would lead to the rather undesirable hierarchy in which NegP is higher than PolP, the projection which is meant to emphasise it. Table 1 below summarises the empirical areas investigated and the success rate of the (implementations of the) analyses reviewed in this paper.

Table 1. Some approaches to OV orders: Survey

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Traditional analysis</th>
<th>No V-movement</th>
<th>Double movement</th>
<th>F-feature movement (also in infinitive)</th>
<th>F-feature movement (not in infinitive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) <em>en</em> = Neg°</td>
<td>Adjacency XP&lt;sub&gt;NEG&lt;/sub&gt;-<em>en</em></td>
<td>OK</td>
<td>Problem</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>(ii) PolP ≠ NegP</td>
<td>Adjacency XP&lt;sub&gt;NEG&lt;/sub&gt;-Neg°</td>
<td>OK</td>
<td>Problem</td>
<td>OK</td>
<td>OK</td>
</tr>
</tbody>
</table>

Hierarchy

<table>
<thead>
<tr>
<th>PolP</th>
<th>NegP</th>
<th>PolP</th>
<th>NegP</th>
<th>PolP</th>
<th>NegP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem</td>
<td>OK</td>
<td>Problem</td>
<td>OK</td>
<td>Problem</td>
<td>OK</td>
</tr>
</tbody>
</table>

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I write this paper to celebrate the twentieth anniversary of the group The Models of Grammar Group (Grammaticamodellen). It was an honour and a pleasure to be able to work with the group and I am sure that my own research has greatly benefited from it. I have very fond memories of the days when I travelled to Tilburg regularly and I have kept many friends from the group. Thanks are due to Marc van Oostendorp and Elena Anagnostopoulou for comments on an earlier version of this paper. Obviously, I am responsible for remaining errors.

One problem for this account was that in the West Germanic OV languages some constituents (PP, DP) are definitely head-initial, meaning that there could be no homogeneous base structure.

In an approach which assumes that canonical OV orders in West Germanic languages are a reflex of a base order in which complements appear to the left of the selecting V, rightward movement (‘extraposition’) had for instance to be invoked to account for the sentence-final position of finite clauses (i). See the discussion in Zwart (1993, 1997a, 1997b).

(i) dat ik denk [dat Jan ziek is]
that I think that Jan ill is

It might be thought that an antisymmetric approach could handle the data in (i) straightforwardly as being a reflex of the base order, but careful examination of the data has shown this to be incorrect (Haegeman 1998c, Hinterhölzl 1999).

The parametric variation itself is sometimes seen as a primitive, or it is related to the direction of case assignment or of thematic marking.

Haegeman (2000a) offers additional arguments for postulating V-to-I movement. These concern verb morphology, the availability of object shift, and the availability of the transitive expletive construction. For reasons of space I do not repeat the arguments here.

As discussed in Haegeman (2000a), though, the implication of the analysis is that it must be assumed that all DP objects move leftward out of VP, including indefinite objects with a weak reading.

The analysis would also be compatible with T-to-Pred movement.

Observe that there is no assimilation of the –t ending of eet and the infinitival complement, unlike is the case in IPP-constructions. For assimilation and extraposition see Haegeman (1998c).

(i) da Valère beloofd eet/*ee [die liedjes nie te zingen]
that Valère promised has [those songs not to sing]
that Valère has promised not to sing those songs

(ii) da Valère ee/*eet durven die liedjes zingen
that Valère has dare those songs sing
As shown in Haegeman (2000a) infinitives raise additional problems for the F-feature movement approach. I have touched upon the relevance of the negation data in earlier work (Haegeman 2000a). The present paper offers a more careful and detailed elaboration of the earlier analysis. I thank Peter Svenonius for helpful discussion.

The link between negation and Tense is discussed in work by Laka (1990) and Zanuttini (1996). Contrary to Haegeman (1998a,b) but in line with Haegeman (2000a). When the negative quantifier has non-sentential scope its distribution is different. For instance, extraposition is possible:

(i) da Valère da gedoan eet vu niets
    that Valère that done has for nothing (‘free’)
(ii) da Valère da gedoan eet in geen tyd
    that Valère that done has in no time


For completeness’ sake, observe that I also assume that Neg is not licensed by LF movement to T, since I assume that infinitives (in F) are incapable of moving to T. (see also Haegeman (1998a,b) for detailed argumentation).

Van Kemenade (2000) provides evidence from earlier stages of English for two projections associated with sentential negation. One projection is high in the IP domain, one dominates VP (2000:74). For a relatively high PolP see also among others Cormack and Smith (1998) and Holmberg (2001: 141). Haegeman (1995) equated WF en with French ne. However, this is not justified. First of all, their distributions differ. While WF en incorporates to a finite verb, French ne may also appear in infinitival clauses, in which case it does not incorporate to the verb:

(i) Ne pas lui en parler serait une erreur.
    ne not to him of it speak would be a mistake
    ‘It would be a mistake not to mention it to him.’

Secondly, they also differ in interpretation. Unlike WF en, French ne is not a presuppositional negation. For emphasis on the negation in (ii) the stress will be on pas. Thanks to Christopher Laenzlinger for discussing these data with me.

(ii) Son numéro? Mais je ne l’ai pas.
    His number? But I don’t have it.