ABSTRACT

This paper presents a novel “Kaynian” analysis of Old and Middle English (OE and ME) word-order patterns in terms of which the patterns attested at the various stages of OE and ME are analysed as the output of a single grammar which, however, permits restricted types of variation. We propose that the West Germanic-like OE word orders were derived via the application of two types of “large XP” movement – VP-raising to Spec\(v\)P and \(v\)P-raising to Spec\(TP\) – which are in fact pied-piping operations: in both cases, a DP contained within VP and \(v\)P – the object and the subject respectively – constitutes the actual Goal of movement, with the larger structure simply being pied-piped along. Non-West-Germanic orders in both OE and ME and synchronic variation more generally are shown to be derived from the side-by-side availability in the OE and ME grammar of pied-piping and “stranding”, and the word-order changes that occurred in ME are analysed as the consequence of a reanalysis of the ever more liberal “stranding”-permitting pied-piping grammar as one which specifically targets DPs.

1. INTRODUCTION

In this paper, we propose a new analysis of the word-order variation found in Old and Middle English and also of the word-order changes that took place during the Middle English period. Although we follow a broadly “Kaynian” approach to the analysis of OV order in that we assume that such orders cannot be the direct result of First Merge of object and verb, our approach differs from other approaches in the literature (e.g. Roberts, 1997; van der Wurff, 1997a, 1997b, 1999) in that we propose that the movements that derived the Old and Middle
English orders involve “large XPs”. Thus we propose that Old English (OE) had both VP-movement to SpecvP and vP-movement to SpecTP. In other words, we propose that objects which appear in the OE *Mittelfeld* were pied-piped along as part of VP and that subjects, similarly, moved to SpecTP as part of a larger constituent, namely vP. Our central claim is that both of these “large XP” movements were lost, VP-movement having been reanalysed as object-movement before the end of the OE period and vP-movement having, during the ME period, been replaced by the requirement that SpecTP be specifically and exclusively filled by the subject-DP or some subject-related expletive. In later ME, object-movement became subject to increasing restrictions on the nature of the fronted nominal, ultimately being lost. Similarly, our analysis of developments in the TP-domain entails that exclusive movement of the subject to SpecTP only became the established norm during the later ME period, with SpecTP in OE and earlier stages of ME not being a position reserved for subjects in the manner required by Chomsky’s (1981, 1982) Extended Projection Principle (EPP). The loss of vP-movement that we postulate therefore entails more than simply the loss of V-final and V\textsubscript{FIN} – V\textsubscript{-FIN} orders in embedded clauses, but also has important consequences for the distribution of non-argument expletive subjects.

In addition to providing a new and more empirically adequate account of word-order change in ME, our approach also involves a new way of treating the well-known problems associated with the attested variation in word order at this period and in OE and also, crucially, with the fact that this variation involved “*lengthy periods of structured* variation” (Pintzuk 2002: 277; our emphasis – MTB/IGR). The key technical notion in our account of this variation is the familiar one of pied-piping (for example, that which underlies the optionality in contemporary English seen in pairs of sentences such as *To whom did you speak? vs Who did you speak to?*). We argue that the option of pied-piping in certain contexts which we will describe in detail is what underlies much of the attested word-order variation in OE and ME, and that the loss of this option underlies much of the observed word-order
change. Furthermore, we suggest that the mechanism favouring the change was the preference for relatively simple structures, in the sense of Clark & Roberts (1993).

The paper is organised as follows. Firstly, we describe the technical aspects of pied-piping which lie at the heart of our account of variation and change in section 2. In section 3, we describe our general analysis of West Germanic subordinate-clause word order and apply it to OE. In section 4, we describe the basic parametric changes that we believe affected word order in ME, distinguishing the loss of VP-movement, which was replaced by object-movement, from the loss of vP-movement, which was replaced by subject-movement. In section 5, we highlight two general points concerning parameter interaction in syntactic change which are raised by the proposed analysis: **parametric harmony** or the idea that formal features of different functional heads subject to parametric variation tend to have the same values synchronically and change together diachronically (cf. Greenbergian typological correlations) and **parameter conspiracy** or the idea that setting a parameter $P_i$ to a given value may, in interaction with the value of a second parameter $P_j (i \neq j)$, give rise to a specific grammatical phenomenon which is not a consequence of the value of either parameter on its own. Section 6 concludes the paper.

2. PIED-PIPING AND EPP-SATISFACTION

As mentioned in the introduction, the technical notion central to our proposal is that of pied-piping. More specifically, we adopt the analysis of pied-piping put forward in Biberauer & Richards (2003, 2004) and Richards & Biberauer (2004a, 2004b). This analysis exploits the distinction between two related properties a given head may have in the version of the theory of movement and checking/agreement of features proposed in Chomsky (2000, 2001, 2004), namely that of being a Probe on the one hand and that of being associated with an EPP-feature on the other. In terms of this theory, a head may bear an (active) uninterpretable/unvalued feature (e.g. an unvalued phi-feature) which functions as a Probe,
necessitating the location of an appropriate Goal bearing an interpretable/valued counterpart of the Probing feature since this latter feature must be eliminated from the derivation in order for convergence (well-formedness) to be possible. The operation facilitating this feature-elimination is assumed to be Agree. Agree holds between a Probe P and a Goal G under the following three conditions:

(a) P must (asymmetrically) c-command G;
(b) P and G must be non-distinct in features; and
(c) there must be no Goal G’ ≠ G such that P c-commands G’, G’ c-commands G and G does not c-command G’.

Crucially, Agree relationships can be successfully set up without the need for movement: as long as P and G meet the conditions outlined above, they can enter into an Agree relation and uninterpretable/unvalued feature-elimination can therefore take place in situ. The theory of feature-checking (or, more accurately, feature-valuing/Agree) that we adopt therefore crucially departs from earlier Minimalist proposals (cf. Chomsky 1995) in terms of which movement and the creation of a very local (Spec-head/head-head) configuration was regarded as a prerequisite for feature-checking.

The Agree-based theory that we adopt does not, however, rule out the possibility that feature-checking (Agree) and movement may coincide: wherever a Probe-bearing head is associated with an EPP-feature, convergence is in fact only possible if the creation of the appropriate Agree relation is accompanied by movement of the Goal-bearing category. The most important characteristic of this system for our purposes is that there is nothing which prevents a Goal G from being properly contained inside a category which is moved in order to satisfy the Probe’s EPP-feature. In fact, this option must be admitted in order to allow for standard cases of pied-piping, as when the object of a preposition is questioned or relativised in a language such as French which disallows preposition-stranding, see (1):

(1) A qui as-tu parlé?
to whom have you spoken?

We can schematise this situation as in (2):

(2) \[ \text{wh}_{\text{PROBE}} \ldots [\text{PP wh}_{\text{GOAL}} \ldots ] \ldots \]

Here PP moves to satisfy the Probe’s EPP-feature, but the Goal is the \text{wh}-feature properly contained in PP.

As is well known, pied-piping under \text{wh}-movement is obligatory in French. The ungrammaticality of the following example illustrates this point:

(3) *Qui as-tu parlé à ?

On the other hand, as we mentioned in the Introduction, English allows both options, pied-piping and stranding. Compare (4) in this connection:

(4) (a) To whom did you speak?
    (b) Who did you speak to?

So we see that Universal Grammar allows variation as to whether it is simply the Goal that moves or whether a larger category is required to move in order to satisfy the Probe’s EPP-feature.

More generally, pied-piping involves the abstract configuration in (5) and Universal Grammar, then, allows crosslinguistic variation as to whether \( Z_{\text{GOAL}} \) moves to X or the larger category YP containing \( Z_{\text{GOAL}} \) moves to Spec,XP:

(5) \[ \ldots X_{\text{PROBE}} \ldots [\text{YP } \ldots Z_{\text{GOAL}} \ldots ] \ldots \]

Biberauer (2003), Biberauer & Richards (2003, 2004) and Richards & Biberauer (2004a, 2004b) exploit this option, which, as we have seen, is independently needed for familiar cases of variation in \text{wh}-extraction, to account for aspects of word-order variation in Germanic and to provide a unified analysis of T-related EPP-satisfaction in this language family. Specifically, they propose that, in terms of the schema in (5), X may be T, YP may be \( vP \) and Z an element with D-features (either a subject-DP/expletive or nominal morphology on the verb; see below) since T is assumed to probe for a D-bearing Goal. This means that \( vP-\)}
movement may take place where the Goal is in fact a D-element (Z in (5)) probed by T (i.e. X in (5)). In other words, T with a D-oriented Probe may in fact attract a vP. The D-features of the Goal contained in vP satisfy the active uninterpretable formal feature (i.e. the D-feature) of T, while vP-movement (i.e. pied-piping) satisfies T’s EPP-feature.

On this basis, Richards & Biberauer (2004a) construct a four-way typology of ways of satisfying T’s EPP- and D-features based on the two parameters of the source of the D-feature and the size of the category containing or bearing the D-feature. The source of the D-feature may be either the verb morphology, in languages where this morphology is sufficiently “rich” (cf. Alexiadou & Anagnostopoulou, 1998; Borger, 1986), or, in languages with more impoverished verbal morphology, the DP contents of (outer) SpecvP. The size of the category containing or bearing the D-feature may either correspond to that of the Goal (the finite verb or the DP subject) or to that of the maximal category containing the Goal (vP). Table 1, from Richards & Biberauer (2004a), illustrates the typology:

INSERT TABLE 1 HERE

A language which chooses [D] on the finite verb as the value of the source parameter and no pied-piping as the value of its size parameter will have v-to-T movement and no obligatory D-feature-driven movement into SpecTP (there may, of course, be discourse or other factors which may cause such movement, but this is a further dimension of variation among languages of this type – cf. Alexiadou & Anagnostopoulou 1998 for discussion): canonical null-subject languages such as Greek and Italian instantiate this option. These are the head raising languages in Table 1.

A language which chooses [D] in the outer SpecvP as the value of the source parameter and no pied-piping for the size parameter has obligatory DP-movement to SpecTP. Such languages show the standard subject-related EPP effects familiar from the GB literature, including the obligatory presence of expletives in SpecTP in the relevant constructions:
Modern English and the Modern Mainland Scandinavian languages are examples of languages of this type. These are the *spec raising* languages in Table 1.

The third possibility is that the source parameter chooses \([D]\) on the finite verb and the size parameter elects pied-piping. In such languages, vP raises to SpecTP, being pied-piped in the sense described above, in order to satisfy the features of T. The main example of a language of this type which will concern us here is German. This type of language is referred to as a *head pied-piping* language in Table 1.

Finally, the fourth possibility is that the value of the source parameter is \([D]\) in SpecvP and the value of the size parameter is \([+\text{pied-piping}]\). Languages instantiating this combination of choices are termed *spec pied-piping* languages. Richards & Biberauer (2004a) argue that this combination of parameter settings, uniquely among the possible combinations represented in Table 1, allows two distinct operations to satisfy T’s featural requirements: either movement of the DP in the Specifier of \(v\) (i.e. DP-movement), or vP-movement. Both options are available because there are no system-internal or input-based reasons for speakers of spec pied-piping languages to rule out DP-raising as an alternative to vP-raising. More specifically, the proposal is that a \([+\text{pied-piping}]\) setting can be interpreted as instructing the system to ‘move an XP, not an X’, i.e. to move more than the minimal independent bundle of features containing the Goal (i.e. a head) that is visible to the grammar. In the case of head-raising languages like German, this necessarily means that the Goal (Vf) cannot move independently of its containing category as Vf is simply a head.\(^1\) For spec pied-piping languages, by contrast, moving the DP-Goal rather than the containing vP does satisfy the \([+\text{pied-piping}]\) requirement as DP is an XP. As far as the spec pied-piping grammar is concerned, therefore, DP- and vP-raising are equally allowable modes of T-related EPP-satisfaction. Spec pied-piping grammars therefore admit optionality in respect of how T’s EPP-feature is satisfied. It is important to see that the choice of applying pied-piping or not in such cases is not the reflection of an optional parameter setting or of competing grammars,
etc., but rather the result of a **single, fixed set of parametric choices**. Spec pied-piping languages alone have a choice of ways of satisfying T’s features since the non-pied-piping languages by definition do not have a pied-piping option and in head pied-piping languages, movement of the DP in SpecvP would not amount to movement of the Goal (or of a category containing the Goal), and so is not possible. Among the spec pied-piping languages are Afrikaans and Faroese and, we will suggest below, Old English.

**INSERT TABLE 2 HERE**

The above discussion is summarised in Table 2. In this paper, we propose extending the domain within which this analysis has been said to hold, and applying it also to the case where, in terms of (5), X is v, YP is VP and Z is, as in the previous case, an element with D-features. For the same reason as in the case just described, this means that a v with D-features may attract a VP into its specifier in order to agree with the D-element contained in the VP and in order to satisfy its EPP-feature. Again, as in the previous case, wherever the targeted D-element is a DP, two options present themselves for the satisfaction of v’s EPP-feature: vP-raising or DP-raising, i.e. pied-piping or exclusive movement of the Goal (“stranding”). We thus postulate an essential parallelism between the options available for the satisfaction of T and v’s D-features: in both cases, system with the [+pied-piping] setting of the size parameter permit either pied-piping of respectively vP and VP or, alternatively, DP-movement.

The central proposals of this paper are, first, that OE was a uniformly spec pied-piping language. As such, it allowed optional pied-piping wherever T and v probed a phrasal D-element, thus giving rise in the TP-domain to a choice between subject DP-movement to SpecTP or vP-movement to this position, and, in the vP-domain, to either object DP-movement to SpecvP or VP-movement to this position. We submit that this optional pied-piping gave rise to much of the attested word-order variation in OE, as we shall see in more detail in section 3.2. The proposed analysis therefore allows us to account for much of what has previously been seen as theoretically inexplicable variation in grammars (i.e. “true
optionality”) or grammars in competition (Kroch, 1989) in terms of a single grammar, one which freely allows both pied-piping and stranding movements to achieve the satisfaction of its EPP-requirements. It has been claimed (Anthony Kroch, p.c.) that a major advantage of analyses of word-order variation based on competing grammars is that the individual grammars postulated can be rather simple, with the complex patterns of variation found in the data being ascribable to the extragrammatical factor of competition. This argument undoubtedly holds in the context of “pre-Kaynian” accounts of word-order variation and change which necessarily relied on the postulation of directionality parameters to account for head-initial versus head-final order: for a single grammar to generate both orders, one would presumably have to allow for an “unset” head-directionality parameter, a distinctly unattractive theoretical option. We submit, however, that the typology summarised in Table 1, which simply exploits possibilities left open by the current version of the theory, affords an elegant account of word-order variation which does not entail the postulation of a theoretically dubious single grammar or an appeal to the extra layer of complexity entailed by the postulation of competing grammars.

Our second proposal is that the loss of the optionality and its replacement with just the non-pied-piping/stranding variant, i.e. subject DP-movement to SpecTP and object DP-movement to SpecvP, underlies much of the word-order change observed in the ME period.

We are now in a position to look more closely at how these technical ideas can be put in practice in accounting for word-order variation and change in OE and elsewhere in Germanic.

3. WEST GERMANIC AND OE WORD-ORDER PATTERNS

3.1 West Germanic OV word-order patterns

In order to understand the changes which took place in ME, we need to see what the word orders of OE were. Since these were very similar to those found in Modern German, we
begin by briefly outlining the word-order analysis we assume for this language. As is standard practice, we confine our attention to subordinate-clause word order because of the effects of verb-second (V2) in main clauses. Following Biberauer (2003), we assume that the characteristic V-final subordinate-clause word order of Modern German is derived by two movement operations operating on a head-initial merged order: VP-movement to (inner) SpecvP and vP-movement to SpecTP.  

To see how this works, consider the following simple German sentence:

(6) ... daß Johann das Buch gelesen hat

that John the book read has

“… that John has read the book”

Following Kayne (1994), we assume a head-initial order of the kind illustrated in (7) below:

(7) T [vP v [VP V O ]]

The order observed in (6) is obtained by means of the operations given in (8) in the order shown:

(8) (i) V-to-v raising:

(ii) VP-to-(inner)SpecvP movement:

(iii) merger of the subject in the topmost SpecvP:
(iv) \( vP \)-movement to SpecTP:

\[
\begin{array}{c}
\text{TP} \\
\overset{vP}{\text{S}} \quad \overset{v'}{\text{T}} \quad \overset{tVP}{\text{T'}} \\
\text{VP} \\
\overset{tV}{\text{O}} \quad \overset{v'}{\text{v'}} \quad \overset{tVP}{\text{V}}
\end{array}
\]

(For ease of exposition, we represent the auxiliary *hat* as being merged in T).\(^3\)

In terms of this analysis, therefore, the structure of (monoclusal) German subordinate clauses may be viewed as differing minimally from that of their counterparts in other Germanic languages. Compared to Modern English, for example, German differs only in respect of the D- and EPP-features assumed to be (obligatorily) associated with \( v \) and, secondly, in respect of the mechanism by means of which the EPP-feature on \( T \) is satisfied (i.e. pied-piping rather “stranding”/DP subject-raising). Compared to Insular and Mainland Scandinavian, the difference would seem to be even smaller, with the major difference in both cases being the more selective availability of an EPP-feature on \( v \) and the unavailability of the pied-piping mechanism as a means of satisfying this EPP-feature and, in the case of Mainland Scandinavian, also the EPP-feature associated with \( T \) (see Biberauer & Richards, 2003; Richards & Biberauer, 2004a for further discussion). We leave aside here the question of whether Modern English features V-to-\( v \) movement or not as there appear to be arguments for
and against the postulation of this movement (contrast, for example, Costa, 1996 and Johnson, 1991 who postulate V-raising; Koster, 2000 and Zwart, 2005 who argue against movement out of VP; and numerous others, including Chomsky, 2004, who argue that V-to-v movement is required in all languages in order to “verbalise” – rather than, for example, “nominalise” – the acategorial roots stored in the Lexicon). As far as German is concerned, it should be noted that the (short) V-movement assumption made here is not one which others who have proposed a broadly “Kaynian” analysis adopt (cf. Zwart 1997, for example). Assuming this movement in conjunction with the pied-piping-oriented VP-remnant movement outlined above, however, facilitates an intuitively satisfying account of various non-clausal “leaking”/extraposition phenomena (see Biberauer 2003) and, as we shall see below, also enables us to account for one of the patterns that consistently emerged during later OE and, particularly, ME as the characteristic West Germanic OV system disintegrated. Unsurprisingly, therefore, the view that V undergoes short movement of the kind at issue here is widely held among generativists working on OE and ME (cf. Fischer, van Kemenade, Koopman & van der Wurff, 2000: 152ff, 194ff; Pintzuk 1999: 76ff; van der Wurff 1997b)

Another immediate advantage of this analysis is that it provides a straightforward explanation for the absence of true expletives in post-complementiser position in embedded clauses in German, as illustrated by (9):

(9) ... daß (*es) getanzt wurde

that (it) danced was

The expletive is impossible since SpecTP is filled by the fronted vP, satisfying T’s EPP-feature, as shown in (10):

(10) \[ TP \[ vP \text{getanzt} \] \[ T \text{ wurde } \] \]

An expletive therefore need not and cannot be inserted (see Biberauer 2003; Biberauer 2004 for more detailed discussion).

This analysis will, of course, carry over to main clauses; here TP has exactly the structure in (10), except that \[ T \text{ wurde } \] raises to C and expletive es is
inserted in SpecCP in accordance with the verb-second requirement. Thus our approach treats German \( es \) as a CP-expletive, an element only merged in SpecCP (cf. Grewendorf, 1989; Lenerz, 1985; and Wurmbrand 2004b for overview discussion).

The relevant parametric properties of Modern German can thus be summarised as in (11):

\[
\begin{align*}
(11) \quad (a) & \quad v \text{ is a Probe for a } D\text{-element, and the pied-piping option is obligatorily taken to satisfy its EPP-feature, giving rise to VP-movement to } SpecvP; \\
(b) & \quad T \text{ is a Probe for a } D\text{-element, and the pied-piping option is obligatorily taken to satisfy its EPP-feature, giving rise to } vP\text{-movement to } SpecTP; \\
(c) & \quad V \text{ undergoes head-movement to } v.
\end{align*}
\]

We now turn to OE, and show to what extent this analysis can be carried over.

3.2 OE word-order patterns

As is well known, many OE subordinate clauses show the word order illustrated by the German example in (6). This is exemplified in (12):

\[
\begin{align*}
(12) & \quad Da \text{ se Wisdom } þa \text{ þis fitte asungen hæfde } … \\
& \quad \text{when the Wisdom then this poem sung had} \\
& \quad \text{“When Wisdom had sung this poem …”} \\
& \quad \text{[Boethius 30.68.6; Fischer et al., 2000: 143, 25]}
\end{align*}
\]

The analysis proposed for (6) in the previous section carries over straightforwardly to OE examples of this type. This suggests two things: first, that in OE, \( v \) is a Probe for a \( D \)-element, and the pied-piping option is available, giving rise to VP-movement to Spec\( vP \); and second, that \( T \) is a Probe for a \( D \)-element, and the pied-piping option is likewise available in this case, giving rise to \( vP \)-movement to Spec\( TP \). The fact that VP pied-pipes creates orders in which VP-internal material in addition precedes V. Hence particles, indirect objects and other material typically precede V in OE.
However, in addition to the V-final order illustrated in (12), OE also shows a range of other subordinate-clause word orders. Here we will treat these in turn.

The first order to consider corresponds to what has been called “verb raising” in the Germanic literature (cf. Evers, 1975; this order was first described for OE in van Kemenade, 1987). Consider (13) in this connection:

(13) ... þe æfre on gefeohhte his handa **wolde afylan**

who ever in battle his hands would defile

“... whoever would defile his hands in battle”

[Ælfric’s Lives of Saints 25.858; Pintzuk, 1999: 102, 62]

We assume that these structures are biclausal since they feature verbs such as **willan**, **cunnan**, **magan**, etc. which, as far as the OE and most of the ME period are concerned, are generally agreed to have been lexical verbs which select infinitival TP-complements (see Lightfoot, 1979; Roberts, 1985, 1993; Roberts & Roussou, 2003; Warner, 1993 on the development of these verbs into auxiliaries in English). Furthermore, we assume that these verbs were “restructuring” or “clause union” triggers in OE (cf. van Kemenade, 1993). Following Zwart (2001), we take this to mean that the verbs in question select what Chomsky (2001) refers to as $T_{DEFF}$, i.e. defective (non-phi-complete) T or T which is selected by V rather than C. Within Chomsky’s phase-theory, selection by V rather than C entails that the derivation will proceed for longer before material is sent to Spellout and thereby rendered inaccessible to further syntactic operations. Consider in this connection the Phase Impenetrability Condition (PIC) stated in (14) (cf. Chomsky 2000: 108):

(14) In a phase $\alpha$ with head H, the domain of H (i.e. its complement – MTB/IGR) is not accessible to operations outside $\alpha$, only H and its edge are accessible to such operations.

The edge of the phase is defined as material outside H’: Specifier(s) of H and any category adjoined to HP (cf. Chomsky, 2001: 13). What this entails is that material in the complement
of a phase-head (i.e. \(v\) or \(C\)) becomes inaccessible once the phase in question (i.e. \(vP\) or \(CP\)) has been completed. Thus material located in \(VP\) (the complement of \(v\)) will be spelled out once \(vP\) is completed and that in \(TP\) (the complement of \(C\)) likewise becomes unavailable to further syntactic computation upon completion of \(CP\). In the case of the restructuring verbs under consideration here, the assumption that restructuring verbs select \(TP\) rather than \(CP\)-complements therefore entails that they select complements which will not be sent to Spellout prior to merging of the restructuring verb, with the result that material in this complement is available for further syntactic operations. Let us consider the derivation of (13) in order to see how this works.

The derivation proceeds from a merged order of elements of the sort in (7) combined with the operations (8i – iii) above. This gives rise to the following \(vP\)-order in the lower (infinitival) clause:

\[
(15) \quad [vP \ S \ [vP \ tV \ O] \ V+v \ [ivP]]
\]

As noted above, the special property of these “verb raising” orders is that they involve a biclausal structure, with the matrix restructuring verb selecting a defective infinitival T. We assume that this infinitival T attracts \(v\), and hence \(V\), given V-to-\(v\) movement (see (8i)). We take it that this is a property of the infinitival T selected by verb raising triggers: since Evers (1975), these have been closely identified with the “restructuring” verbs of Romance (cf. Rizzi, 1982) and the infinitives in the complements of these verbs are commonly thought to undergo movement into the inflectional domain (see, for example, Kayne, 1991, for an account of infinitive movement which is compatible with this idea; van Kemenade 1987: 55ff; Nunes 1995; and Roberts 1997: 412, 424, Note 5 also assume infinitival V-movement for OE). Furthermore, Burzio (1986: 328ff) showed that Romance restructuring verbs could be either raising or control verbs. In the latter case, S in representations such as (15) would correspond to PRO.
The operation of v-to-T movement inside the infinitival clause gives rise to the following structure:

(16) \( [\text{TP} \ V^+\text{T} \ [\text{vP} \ S \ [\text{VP} \ tV \ O] \ t_{vV} \ t_{\text{vP}}] ] \)

The next step is vP-raising to infinitival SpecTP, as in (8iv) above. This gives (17):

(17) \( [\text{TP} \ [\text{vP} \ S \ [\text{VP} \ tV \ O] \ t_{vV} \ t_{\text{vP}}] \ V^+\text{vT} \ t_{\text{vP}}] \)

Next, the verb raising trigger (which we call \( \text{VR} \)) merges with TP. Since this merger does not result in the completion of a phase (V, as mentioned above, not constituting a phase-head), matrix \( v \) can attract the material in infinitival SpecTP (no longer containing infinitival V) to its specifier and, from there, to matrix SpecTP. We thus obtain the representation in (18):

(18) \( [\text{TP} \ [\text{vP} \ S \ [\text{VP} \ tV \ O] \ t_{vV} \ t_{\text{vP}}] \ T \ \text{VR} \ [\text{TP} \ t_{\text{vP}} \ V^+\text{vT} \ t_{\text{vP}}] ] \)

In this way, the “verb raising” orders of Modern Dutch and OE can be derived.

The next order to consider corresponds to what has been called “verb projection raising” in varieties such as West Flemish and Swiss German (cf. Haegeman & van Riemsdijk, 1986; Hinterhölzl, 1997, 1999; Wurmbrand, 2003; van Kemenade, 1987 was the first to observe that OE has this word order; see also Pintzuk 1999):

(19) þæt hie **mihton** swa bealdlice **Godes geleafan bodian**

that they could so boldly God’s faith preach

“that they could preach God’s faith so boldly”

[The Homilies of the Anglo-Saxon Church I 232; van Kemenade, 1987: 179, 7b]

Since they involve the same class of selecting verbs as those involved in “verb raising”, we assume that these structures too are biclausal. The derivation of (19) proceeds exactly as that for the “verb raising” example in (13), except that matrix T’s EPP-feature is satisfied by the non-pied-piping option of DP-movement of the subject from infinitival SpecTP (via matrix SpecvP). This gives the following structure:

(20) \( [\text{TP} \ S \ T \ V_{\text{R}} \ [\text{TP} \ [\text{vP} \ tS \ [\text{VP} \ tV \ O] \ t_{vV}] \ V^+\text{vT} \ t_{\text{vP}}] ] \)
A comparison of (20) and the structure given for “verb raising” in (18) reveals that “verb raising” and “verb projection raising” emerge as minimally different on our analysis. The sole difference concerns the choice of pied-piping versus non-pied-piping to satisfy the matrix T’s EPP-feature: the pied-piping option results in a “verb raising” structure, whereas the non-pied-piping option delivers “verb projection raising”. The non-pied-piping option was available in OE and is available (alongside “verb raising”) in varieties such as Swiss German, West Flemish and Modern Spoken Afrikaans, but is not available in Modern Standard Dutch, German or Afrikaans.

It is well known that OE also displays subordinate-clause word orders that are not found elsewhere in Modern West Germanic languages. These orders feature the sequence V … O, where V is not necessarily adjacent to O and where O can crucially be “light”. One case of this is illustrated in (21):

(21) … þæt he mot ehtan godra manna

that he might persecute good men

“… that he might persecute good men”

[Wulfstan’s Homilies 130.37 – 38; Pintzuk, 2002: 282, 13b]

We treat this as an example akin to “verb projection raising” as in (19), with the single difference that the non-pied-piping option, i.e. movement of the subject-DP alone, is chosen to satisfy the lower (i.e. infinitival) T’s EPP-feature. On our analysis, the structure in (22) therefore underlies superficially Modern English-like (21):\(^9\)

\[
\text{[TP} \ S \ T \ V_R \ [TP \ t_S \ V+T \ [\text{VP} \ t_S \ [\text{VP} \ t_V \ O] \ t_{v+V}]]
\]

This structure is expected if the non-pied-piping option is in general available, as we would expect it to be. If this is the case, however, we would also expect to find orders of this kind to occur in Swiss German, West Flemish and Modern Spoken Afrikaans. Structures reflecting this order are in fact found in Modern Spoken Afrikaans, as shown in (23):

(23) Hy laat val die bal
he lets fall the ball

“He lets the ball fall.”

A further kind of V… O order that was available in OE, but that fails to surface in any other West Germanic language is illustrated in (24):

(24)  ... þæt ænig mon atellan mæge calne þone demm

that any man relate can all the misery

“... that any man can relate all the misery”

[Orosius 52.6 – 7; Pintzuk, 2002: 283, 16b]

This structure evidently does not involve “verb (projection) raising”, despite the fact that the matrix verb is one of the “restructuring” triggers discussed above: the non-finite verb atellan clearly precedes the modal that it would ordinarily follow in restructuring contexts. Remembering that modals do not trigger restructuring in German and noting that OE also featured modal-containing clauses which do not exhibit restructuring behaviour, we propose that these verbs were merely optional “restructuring” triggers in OE. If this is indeed the case, we could potentially analyse (24) as involving a smaller infinitival complement, say vP (see Wurmbrand 2003 for arguments that restructuring verbs always select “small”, non-clausal complements). One possibility would be to say that infinitival v in this case fails to bear an EPP-feature, with the result that VP-remnant/object-raising does not take place. Upon completion of the vP-phase, this object is therefore sent to Spellout in accordance with the PIC in (14), with the result that it is unavailable for further syntactic operations (see also the discussion in section 4.2). This analysis clearly has the cost of positing an optional EPP-feature on v, something which we consider undesirable unless it can be shown under what circumstances this EPP-feature would be absent (or, possibly, overridden; cf. the possibility of analysing so-called “Heavy NP-Shift” as a post-syntactic operation) and also what input would have led acquirers to postulate the absence of this feature under the relevant circumstances.
For these reasons, we suggest a different approach. Specifically, we propose that $v$ in OE was indeed, for the most part (see below), only optionally associated with an EPP-feature, but that the presence of this optional EPP-feature systematically guaranteed an interpretive effect that was absent in structures generated from Numerations lacking an EPP-feature bearing $v$. To the extent that this optional feature necessarily results in a “new interpretation” in the sense of Chomsky (2001: 34, 2004: 112), it cannot therefore be regarded as truly optional: this kind of EPP-feature is only optional because its effects (unlike those of obligatory EPP-features) need not obligatorily be realised in every clause featuring the head with which it is associated; wherever the effects are present, the EPP-feature is too and vice versa.\textsuperscript{10} In view of the fact that OE appears to have permitted objects (and other VP-material) to remain \textit{in situ} where this material required focusing (cf. Pintzuk & Kroch 1989 on the obligatorily focus-bearing nature of the postverbal material in \textit{Beowulf}), it is at least conceivable that postverbal position in OE may have come to rival the preverbal Nuclear Stress position identified by Cinque (1993) as the default locus of focus in Germanic. Assuming this to be true and following the more generally assumed notion that leftward movement in Germanic is a “defocusing” operation, we propose that OE $v$’s EPP-feature came to be (re)analysed as an optional feature, specifically triggering defocusing movement wherever it was present; wherever it was absent, unmoved material could therefore remain in focus. One point that should be noted at this point, however, is that this analysis of the presence/absence of $v$’s EPP-feature implies that negative and quantified/indefinite objects which appear to have rather consistently surfaced preverbally during OE (and, as we shall see in the next section, also in early ME) were leftward-moved for different reasons. As Kroch & Taylor (2000) and Pintzuk (2002: 294ff) independently come to the conclusion that these objects did not leftward-move for the same reasons as non-negative/non-quantified objects, we view this as a desirable implication and propose that the negative/quantified object movement may in fact have been triggered by the presence of an \textbf{obligatory} EPP-feature
specifically associated with a [+Op] D-seeking Probe. In other words, we can think of OE \( \nu \) as having differed from German \( \nu \) in having probed specifically for [+Op] D-bearing elements rather than for the entire class of D-bearing elements. OE object movement may therefore be viewed as the result of two different types of EPP-feature-driven movement, one involving an obligatory EPP-feature which, as usual, operates in tandem with a Goal-oriented Agree operation, and the other involving an optional EPP-feature which thus obligatorily triggers certain interpretive effects, defocusing in this case.

On the basis of the above discussion, we conclude that the relevant parametric properties of OE were as follows:

(25) (a) \( \nu \) is not consistently associated with an EPP-feature. When it acts as a Probe for D-elements of a restricted (i.e. [+Op]-featuring) type, it is, however, obligatorily associated with an EPP-feature. Additionally, it may also bear an optional EPP-feature which results in the moved material receiving a defocused interpretation. In both cases, the pied-piping option alternates with non-pied-piping to satisfy the EPP-features associated with \( \nu \);

(b) \( T \) is a Probe for a D-element, and the pied-piping option once again alternates with non-pied-piping to satisfy \( T \)’s EPP-feature;

(c) \( V \) undergoes head-movement to \( \nu \).

The alternation of the pied-piping versus non-pied-piping mode of satisfaction of \( \nu \)’s EPP-feature gives rise to variation as to whether Spec\( \nu \)P is occupied by VP or the object DP respectively. Similarly, the same alternation at the T-level gives rise to the possibility of SpecTP containing either \( \nu \)P or the subject-DP. Notice that there is no variation as to which features are being satisfied by the various movement operations we have discussed; the only variation lies in the mode of satisfaction of these features.

4. CHANGES IN MIDDLE ENGLISH
Our central proposal regarding what changed in ME is that there were two major reanalyses of a strikingly similar kind that took place at different times during the ME period, the first affecting the manner in which v’s EPP-feature was satisfied and the second, the mechanism via which the equivalent feature on T was satisfied. In the following sub-sections, we will consider each of these changes in turn.

4.1 Changes in the satisfaction of v’s EPP-feature

As was pointed out in the previous section, v’s EPP-feature could be satisfied in one of two ways in OE: either by VP-remnant movement (pied-piping) or by object-movement (stranding). What we propose happened in early ME is that VP-movement was reanalysed as object-movement. Essentially, we are therefore claiming that one mode of satisfaction of this feature took over from the other. The reanalysis is schematised in (26):

(26) \[vP [VP tv O] V-v tvP] \rightarrow [vP O V-v [VP tv tO]]

As (26) shows, fronting of a remnant VP containing just an object (i.e. movement of [VP tv O]) was reanalysed as fronting of the object alone (i.e. movement of O independently of the rest of VP). There is a clear sense in which this is simplification of structure, argued to be the major mechanism of syntactic change by Clark & Roberts (1993) and Roberts & Roussou (2003). We tentatively propose that the reanalysis was caused by a decrease in unambiguous evidence for pied-piping. One factor which may have contributed to this was the decline in the number of verb-particle constructions in early ME (Spasov, 1966, cited in Kroch & Taylor, 2000: 146); Object -Particle- Verb order crucially reflects VP-pied-piping, i.e. the older grammar in (26), while surface Object – Verb order is compatible with either grammar. The innovative grammar is simpler, since it involves movement and therefore copying of less material than the conservative one, and so was preferred in the absence of sufficient evidence to the contrary from particle verbs.
In fact, the change in (26) has a clear general consequence: all VP-internal material other than direct objects is predicted to follow all auxiliaries and the main verb after it has taken place. This seems to be correct. Consider first verb-particle constructions. It is well known that in West Germanic languages the particles found in these constructions cannot be scrambled (cf. Koster, 1975: 118), and, in fact, particles always precede finite verbs in subordinate clauses. It has often been observed that this does not hold for OE (cf. Fischer et al., 2000: 190ff; van Kemenade, 1987: 29ff; Pintzuk, 1999: 79ff). However, the counterexamples to this claim always involve an order where the direct object also follows the verb (cf. Fischer et al., 2000: 194ff). Compare (27) in this connection:

(27) forðan þe stream berð aweg Placidum

because the stream carries away Placidus

“because the stream carries away Placidus”

(ÆCHom II, 11.95.97; Fischer et al., 2000: 194)

On our analysis, examples of this type would be accounted for in the same way as the example illustrated in (21) above. What is important for our purposes here, however, is that the order direct object – verb – particle is not found before the 13th century,\(^{11}\) whereas it represents an attested pattern afterwards (cf. Fischer et al. 2000: 202). An example from the 13th century is illustrated in (28):

(28) þe þæt swuch fulðe speteð ut in any encre eare

who that such filth spews out in any anchoress’s ear

“who spews out such filth in any anchoress’s ear”

[Ancrene Riwle I.35.29; Fischer et al. 2000: 203, 42a]

Here the direct object, swuch fulðe, is fronted by object-movement, the remaining VP-internal material, including both the particle ut and the adverbia phrase in any encre eare follows the verb. The structure of vP in this example is thus as follows:

(29) \([\text{vP } \text{swuch fulðe speteð} [\text{vP tV tO ut [AAdv in any encre eare ]}]]\)
The rise of $V - (...) - Prt$ order in early ME is discussed at length in Hiltunen (1983), who observes (p. 92) that “one cannot avoid the impression of the prefixes [i.e. particles in immediately preverbal position – MTB/IGR] having been swept away almost overnight. The suddenness of the change is remarkable in view of the longish and stable OE period”. If we are correct in proposing that a reanalysis along the lines sketched in (26) took place in early ME, the “suddenness” that Hiltunen refers to receives a potential explanation: the replacement of remnant VP-movement by object-movement predicts that Particle Phrases will no longer precede the position of the lexical verb in $v$, with the consequence that particles will, following the reanalysis, consistently surface postverbally whereas this was only an option before; orderings requiring remnant VP-fronting would instantly disappear, leaving us with the impression of a “catastrophic change” (see Lightfoot, 1991) of the kind highlighted by Hiltunen. This implies that, in addition to the $O - V - Prt$ order in (28), the modern order $V - Prt - O$ is also found. This is of course true and in fact it is the most commonly attested order after the 13\textsuperscript{th} century, although the earlier order is still attested.\footnote{Another area where (26) has repercussions concerns indirect objects. Verbs with both a direct and an indirect object generally showed the usual West Germanic order $IO - DO - V$ in subordinate clauses in OE, as in (30):}

(30) gif se sacerd ne mæg Ȝam læwedum mannum (IO) larspel (DO) secegan

if the priest not can the lay people-DATIVE homily say

“if the priest cannot say a homily to the lay people”

[\textit{Ælfric’s Homilies} II, 41.306.66; Koopman & van der Wurff, 2000: 259, 1a]

This is, of course, expected assuming VP-fronting and the idea that indirect objects are merged VP-internally. (26), however, predicts that $DO - V - IO$ increases in frequency after the reanalysis takes place. The following is an ME example with a dative indirect object:\footnote{This is, of course, expected assuming VP-fronting and the idea that indirect objects are merged VP-internally. (26), however, predicts that $DO - V - IO$ increases in frequency after the reanalysis takes place. The following is an ME example with a dative indirect object:}

(31) <Me schal> leoue sustren þeose storiû tullen eft ou

one shall dear sisters these stories tell afterwards to-you
“One shall tell these stories to you afterwards, dear sisters”

[Ancrene Riwle II.122.1552; Kroch & Taylor, 2000: 155, example 32]

After the reanalysis in (26) the order IO – DO – V is not found.

Other changes were also affecting this construction at this time. Morphological dative case was in the process of being lost (it is usually said that it finally disappeared in the 13th century – cf. Allen, 1995: 410; Lass, 1992:108 – being replaced in many contexts by the to-dative; cf. Koopman & van der Wurff, 2000; McFadden, 2002). Where the indirect object was a to-dative, we thus also find ME instances of the order DO – V – to IO, such as the following:

(32) He slewe his broder Amon that suche desloyalte and vntrouthe had done to his sister

He slew his brother Amon that such disloyalty and untruth had done to his sister

“He killed his brother, Amon, who had been so disloyal and dishonest to his sister”

[Caxton Knight of Tower 87.15; Fischer et al., 2000: 169, 77]

In early ME, (direct) object-movement still affected any kind of object, negative and quantified DPs being attracted by an obligatory EPP-feature and objects more generally undergoing interpretively significant movement under the influence of an optional “defocused interpretation”-triggering EPP-feature. In later ME, as has been observed by several scholars (Ingham, 2002, 2003; Kroch & Taylor, 2000; Moerenhout & van der Wurff, 2000; Pintzuk, 2002; van der Wurff, 1997a, 1997b, 1999), object-movement becomes restricted to either quantified or negative objects, as the following examples illustrate:

(33) (a) I … wist not where I myghte any such fynde

I knew not where I might any such find

“I did not know where I could find any of that kind”

[More Apology 54.12; Koopman & van der Wurff, 2000: 272, 41]
(b) þei shuld no meyhir haue
they should no mayor have

“They should not have a mayor”

[Capgrave Chronicles 62.23; Koopman & van der Wurff, 2000: 271, 36]

(c) and as ffor any hodyr tydyngys I con none wrytt vnto yow as zett
and as for any other tidings I can none write unto you as yet

“And as for any other news, I cannot send you any yet”

[Cely Letters 45.9; van der Wurff, 1997a: 6, 19]

(Note the order \( DO – V – IO \) in (33c))

By the 15\textsuperscript{th} century, as observed by Moerenhout & van der Wurff (2000: 527), “… the pattern with an auxiliary (usually a modal) and a negative object is predominant.” The fact that the objects that surfaced in these structures tended to be negative objects strongly suggests that the optional (defocusing) EPP-feature associated with OE \( v \) had been lost and that the obligatory EPP-feature associated with OE \( v \) had undergone further “specialisation” – whereas it had previously attracted all \([+\text{Op}] \) D-material with which \( v \) had entered into an Agree relation, it only continued to attract a subset of \([+\text{Op}] \) D-elements in later ME, namely \([+\text{Neg}] \) nominals (we have nothing specific to say about why negative object-fronting co-occurs with modals at this stage). The late ME specialisation was followed by the final loss of object-movement of non-pronominal DPs around 1550 (Moerenhout & van der Wurff, 2005; as shown in Roberts, 1995, pronominal object-shift obeying Holmberg’s (1986) generalisation is attested until verb-movement finally disappears in the 17\textsuperscript{th} century). The reanalysis in (26), however, was not connected to these later changes. We can summarise the various changes affecting object position at different periods in OE and ME as follows:

(34) OE: \textbf{obligatory} Op-seeking EPP-feature; \textbf{optional} (defocusing) EPP-feature on \( v \)

\[ \Rightarrow \]

ME: “optionalisation” of Op-attracting EPP-feature; loss of (defocusing) EPP-feature

\[ \Rightarrow \]

Late ME: complete loss of EPP-feature on \( v \)
The later changes therefore clearly involve the complete loss of EPP on $v$.

4.2 Changes in the satisfaction of T’s EPP-feature

Let us now turn to the second change that we claim took place in ME. This was the loss of $vP$-movement, schematised in (35) (assuming that this change takes place after the loss of $VP$-movement; on which see below):

\[(35) \quad [TP [vP S O V-v] T \ vP [vP \ tO]] > [TP S T [vP tS O V-v [vP \ tV \ tO]]]\]

This change has two main consequences. First, it entails the loss of $V – Aux$ order. Second, it is linked to changes in the distribution of the “pure” expletive $there$ (cf. Lasnik 1995) and the regularisation of DP-movement in passives and unaccusatives. Let us now look at these in turn.

It is usually stated that $V – Aux$ order is lost early in ME, considerably earlier than the regularisation of $there$ expletives (on which see below). However, one important class of $V – Aux$ constructions that is generally acknowledged to have persisted is typically treated as a special case on analyses where this assumption is made: these are the cases of so-called Stylistic Fronting. It is also worth pointing out that a range of factors may obscure $V – Aux$ ordering, verb second and “verb-projection raising” among them (cf. our discussion of the latter in the previous section). These factors would undeniably have contributed to the relative rarity of $V – Aux$ order in ME, but the question is: was $V – Aux$ ordering in ME genuinely as scarce as previous researchers have suggested?

Let us firstly consider Stylistic Fronting which, as noted above, is argued to give rise to surface $V - Aux$ orders in ME (cf. Kroch & Taylor, 2000: 139-141; Platzack 1995; Trips 2002: 275). Stylistic Fronting is usually said to be distinct from other operations deriving $V – Aux$ order since it generates this order quite independently of the position of the object. The reason that Stylistic Fronting is often said to be distinct from the general mechanism deriving
“head-final” orders is that \( V – Aux \) order is found, in later ME at least, only where the conditions originally observed for Stylistic Fronting in Icelandic by Maling (1990) are met. The principal condition on Stylistic Fronting is that the clause in which it applies must have a “subject gap” (cf. Maling, 1990; Platzack, 1995; Trips *ibid.*).

Kroch & Taylor (2000: 137ff.) discuss “INFL-final” order in early ME (i.e. clauses in which Aux surfaces clause-finally), and point out that “[i]f … stylistic fronting ... occurred at a very low rate, then the average frequency of INFL-final word order in our texts would be of the order of 10%, about five times higher than the frequency of necessarily INFL-final cases” (141-2). For Kroch & Taylor, therefore, the hypothesised availability of Stylistic Fronting raises the overall incidence of \( V – Aux \) orders considerably, to a rate of occurrence that they regard as implausibly high. On our analysis, by contrast, this figure would not be at all surprising as we assume that \( vP \)-raising (containing the raised verb, but, following the loss of object-movement detailed in the previous section, no object) must have been available as long as “pure” expletives remained optional, i.e. until the 15\(^{th}\) century when SpecTP became established as a dedicated subject position (see below). Our analysis, in fact, leads us to conclude that \( V – Aux \) order was most likely even more frequent than Kroch & Taylor’s figures would suggest and this may well have been the case: recall that Kroch & Taylor limit their attention to INFL-final orders in the context of a non-Ka ynian approach to word-order variation which relies on directionality parameters. Therefore, Kroch & Taylor’s INFL-final order should not be directly equated with our \( V – Aux \) order, since, for us, \( V – Aux \) order does not imply that the Aux occupies absolute clause-final position; instead, the direct object and other material may follow the auxiliary as this is sent to Spellout prior to \( vP \)-fronting wherever it has failed to undergo raising into the \( vP \)-domain. This implies that Kroch & Taylor’s figure for the frequency of \( V – Aux \) order in early ME should probably be viewed as the lower bound, and our analysis predicts that the actual figure would in fact be somewhat higher.
But let us return to the question of Stylistic Fronting: as is well known, this does not apply only to non-finite verbs. It can also apply to negation and light adverbs, in addition to participles. The following examples illustrate the types of structure that have previously been analysed as instances of Stylistic Fronting:

(36) (a) ... wiþþ all þatt lac þatt offredd wass biforenn Cristess come
with all that sacrifice that offered was before Christ’s coming
“... with all the sacrifice that was made before Christ’s coming”

[Ormulum I.55.525; Trips, 2002: 306, 123]

(b) … and he besohte at gode þþat naht ne scolde reinin
and he sought of God that not NEGATIVE should rain
“… and he asked of God that it should not rain”

[Vices and Virtues I.143.1787; Kroch & Taylor, 2000: 139, 9]

(c) … and iff þatt tu forrlangedd arrt to cumenn upp till Criste
and if that you longed-for are to come up to Christ
“… and if you are required to go to Christ”

[Ormulum I.42.436; Trips, 2002; 313, 155]

On the Stylistic Fronting analysis, the bold elements in (36a – b) and the bold participle in (36c) would each have undergone Stylistic Fronting. On our analysis, by contrast, the participle *offredd* in (36a) constitutes the vP which has undergone fronting to SpecTP; the PP *biforenn Cristess come* fails to raise as this is not the sort of constituent that could undergo raising to SpecvP during the ME period (cf. section 4.1). In (36b), *naht* represents the only element in the vP that undergoes fronting as *scolde* is a “restructuring” predicate (cf. section 3). In essential respects, however, this example is exactly parallel to (36a) (we assume that *naht* was a DP at this period, reflecting the nominal origin of this element; since negative DPs were precisely the type of DPs that could still at this stage undergo EPP-driven movement into the vP-domain, this example fits the predictions our analysis makes particularly well). In
(36c), the raised vP consists of the pronoun subject and the participle, i.e. the string tu forrlangedd. In our terms, this is therefore a further perfectly regular case of vP-fronting to SpecTP. For Stylistic Fronting-based analyses, however, this type of example requires a stipulation in order to preserve the vital subject-gap generalisation: this usually entails an appeal to the idea that subject pronouns were in fact clitics which cliticised to a position above the canonical subject slot (cf. Platzack 1995 for an analysis along these lines).

Our analysis of $V - Aux$ orders differs from those based on Stylistic Fronting in that it predicts that non-pronominal DP subjects should also be allowed in the fronted vP, giving rise to the order $S - V - Aux (\sim O)$, an order which cannot be readily accounted for on the Stylistic-Fronting analysis. Kroch & Taylor (2000:141) give some examples, observing that they are problematic for their analysis. We cite one of their examples in (37):

(37) er þanne þe heuene oðer eorðe shapen were
    “before heaven or earth were created”

    [Trinity Homilies, 133.1776; Kroch & Taylor, 2000: 137]

All in all, therefore, it would seem that the proposal that $V - Aux$ orders in ME were derived via Stylistic Fronting suffers from shortcomings that a vP-raising analysis along the lines that we propose does not. More importantly in the context of the present discussion, however, is that there does seem to be evidence that $V - Aux$ orders are likely to have been significantly more common in early ME than is generally acknowledged. In view of our analysis of the rise of expletives, this is a crucial consideration, as we now show.

Turning to the rise of expletives in ME: numerous authors (i.a. Allen, 1995; Breivik, 1990; Hulk & van Kemenade, 1993; Ingham, 2001; van Kemenade, 1997; Tanaka, 2000, 2002; and Williams, 2000) concur that OE did not have expletives in contexts where they are required Modern English. The following examples illustrate this:

(38) (a) ðe gedafenað to lerrenne and me to hlistenne
you-DATIVE behoves to learn and me to listen

“It befits you to study and me to listen”

[Soliloquies 1.33.4; Fischer et al., 2000: 45, 18]

(b) ... swa miclum sniwde swelce micel flys feolle

so heavily snowed as if much fleece fell

“... it snowed so heavily (that it looked) as if a lot of fleece was falling”

[Alexander’s Letter to Aristotle 30.11; Fischer et al., 2000: 39, 3]

c. On þis wilderne ben fugher lages

in this wilderness are four lairs

“In this wilderness there are four lairs”

[Trinity Homilies 211.8; Ingham, 2001: 236, 18]

As (38a) and (38b) show, it-expletives frequently failed to surface in impersonal and “weather” constructions in OE, while there-expletives were very commonly absent from existential/presentational constructions. We assume that T’s EPP-feature could at this stage be satisfied by D-features located within the vP-constituent that generally underwent raising to SpecTP. Let us see how this works.

If we assume, as many researchers do, that pre-documentation OE may have instantiated a more “German-like” language (one consistently exhibiting OV ordering, for example), we can postulate a German-style vP-raising operation in order to derive more systematic OV ordering than is the case in documented OE. Recall that German is a head pied-piping language in terms of the EPP-satisfaction typology presented in section 2 (cf. Tables 1 and 2). As such, it absolutely requires vP-raising in order to satisfy T’s EPP-feature since merely raising the Goal-bearing element (i.e. v) will contravene the [+pied-piping] setting of this language’s size parameter. In German-like OE, structures like those in (38) could, therefore, be accounted for by postulating vP-raising with the verbal morphology on v satisfying T’s D-feature. As documented OE is inflectionally poorer than German, however, it
seems reasonable to propose that the German-like head pied-piping mechanism that we are hypothesising to account for vP-raising in earlier stages of OE did not remain systematically available, with the result that vP-raising was ultimately reanalysed as the output of a spec pied-piping operation: while OE was still sufficiently inflectionally rich, T’s D-seeking Probe could consistently locate a D-bearing Goal on v, but once the relevant verbal morphology began to erode, this was no longer always possible, with the result that T’s Probe frequently had to “look elsewhere” to locate another category bearing the relevant D-features. Nominal DPs constitute an obvious alternative Goal in most structures (cf. in this connection inflected *micel* in (38b) and *fugher lages* in (38c)), with the result that vP-raising could continue largely as before, despite the fact that a change had started to take place in the underlying system. Strictly speaking, therefore, OE cannot be regarded as an exclusively spec pied-piping system since it was still possible for OE T to target D-features on v when necessary (cf. also the discussion in Note 12). Richards & Biberauer (2004a) argue that this possibility (i.e. probing the D-features on v) remains available as a “residual” option as long as the system in question remains a [+pied-piping] one, i.e. one which must move an XP that need not be the smallest category containing the Goal. As soon as the system becomes [-pied-piping], the option of raising vP rather than just DP is obviously lost, with the result that recourse to v’s D-content becomes impossible, regardless of whether v would actually host a suitable Goal or not.

Returning to our consideration of the way in which T’s EPP-feature was satisfied in OE and ME, the fact, noted above, that OE T was not guaranteed to find a D-bearing Goal on v meant that it was necessary for an alternative to be available wherever v lacked the relevant D-feature. In structures featuring lexical subjects, this is not necessarily a problem, but impersonal and “weather” constructions such as those illustrated in (38a, b) do become problematic when v lacks suitable D-morphology, with the result that we expect the rise of appropriate “dummy” elements in these cases. As noted in Allen (1995), “weather” and
anticipatory expletives had for the most part become established by the early ME period, with impersonal *it* becoming established slightly later than “weather” *it*. Existential *there* lagged behind, however, only becoming fully regularised during the 15th century. Thus Williams (2000: 164) notes that 60 – 70% of clauses requiring existential/presentational *there* in Modern English lacked this expletive element in early ME. Consider the examples in (39) in this connection:

(39) (a) … *ach nu is sum wummon þe nalde for nan þing wilni fulðe*
   but now is some woman who wouldn’t for no thing desire lewdness
   “… but now there is some woman who wouldn’t desire lewdness for anything”
   [Ancrene Riwle II.49.365; Williams 2000: 171, 16]

(b) … *for nis nan sunne þet he ne con*
   for not-is no sin that he not know
   “… for there is no sin that he doesn’t know”
   [Lambeth Homilies 35.260; Williams 2000: 171, 17]

(c) … *and com a culur se briht as þah ha bearnde of heouene*
   and came a dove so bright as though it burned from heaven
   “… and there came a dove from heaven so bright as though it burned”
   [Margarete 89.564; Williams 2000: 171, 18]

In terms of the analysis we have been outlining so far, T’s EPP-feature is, in cases such as those illustrated in (39), being satisfied by vP-raising. Consequently, an expletive in this position is unnecessary (cf. also the discussion of (9) in section 3). An expletive may, however, be realised in this position in OE and ME as these varieties crucially differ from (head pied-piping) German in being spec pied-pipers, with SpecvP being available as a merge-site for “pure” expletives. We return to this point below. For the moment, we note that the fact that weather expletives are consistently realised at an earlier stage than existential/presentational ones can be accounted for in terms of our approach. Being external
arguments, these elements must be merged in Spec\(vP\). Once it becomes obligatory to lexicalise “weather” arguments, something which had clearly happened by the beginning of the ME period, “weather” \(it\) will therefore always be merged in Spec\(vP\). As a result, it can therefore also be raised to SpecTP, either with the entire \(vP\) (pied-piping), or on its own when the rest of \(vP\) is stranded (i.e. only DP-raising takes place). The change in “weather” \(it\)’s lexicalisation requirement therefore leads to a rise in the overall number of structures featuring a Goal-bearing D-element in Spec\(vP\), a state of affairs which, in turn, leads to an increase in the number of cases where the grammar can choose between pied-piping (i.e. \(vP\)-raising) and stranding (i.e. DP-raising).

This latter development is, we submit, significant for the rise of “pure” expletives. Following Richards & Biberauer (2004a), we propose that “pure” expletives (henceforth: \textit{expletives}) which surface in SpecTP are universally merged in Spec\(vP\). Only languages which specifically target the contents of Spec\(vP\) in order to satisfy T’s EPP-feature (i.e. spec raising languages) would therefore be expected to consistently require merger of this type of expletive in Spec\(vP\) (see Richards & Biberauer 2004a for detailed motivation of this proposal). Modern English is a language of this type. OE and ME, by contrast, were not and we argue that the expletive distribution characteristics of OE and ME follow directly from their spec pied-piping nature. Let us consider the process via which expletives became established in ME in a little more detail.

According to Williams (2000: 164), immediately after 1250, only 0.033% of possible occurrences of presentational/existential expletives were actually omitted. This appears to be a sudden and extreme change. It should, however, be noted that Williams’ data essentially concerns SpecCP, and appears to document the loss of V1 in ME (i.e. the establishment of an obligatory EPP-feature on C; see Note 23). Expletives consistently appear clause-initially (i.e. in SpecCP) after 1250, but, crucially, clause-internal expletives (i.e. those which must be unambiguously located in SpecTP) still only surface sporadically at this time.\(^{16}\) To the extent
that the developments highlighted by Williams concern SpecCP, they should therefore be viewed as independent from those relating to SpecTP at issue here.

The distribution of *there* in clause-internal position is illustrated by the following examples from the period 1250 – late 15th century:

(40) (a) *vor þer* is lecherie of herte, and lecherie of bodie

     for there is lechery of heart and lechery of body

     “For there is lechery of the heart and lechery of the body”

     *[Ayenbite of Inwit 7]*

     (b) And in alle the world is no gretter treson …

     and in all the world is no greater treason …

     “And in all the world there is no great treason …”

     *[Prologues, Caxton 12.15; Haeberli 1999: 406, 23a]*

     (c) In that tyme was *ther* a Baron …

     in that time was there a baron

     “In that time, there was a baron …”

     *[Book of the Knight of Tower, Caxton 83: 16-18; Breivik 1990: 308, 4.299]*

     (40a) is an early example of *there* in SpecCP (we take *vor* (“for”) to be CP-external, cf. the usual analysis of German *denn* – Uhmann 1998). (40b) illustrates a much later case where there is no expletive in the inversion position (SpecTP), the PP *in alle the world* presumably occupying SpecCP here. If we compare (40c), by the same author, however, we see that *there* clearly could surface in the inversion position in the 15th century: assuming the PP to be located in SpecCP as for (40b), *ther* must be in SpecTP. How are these cases to be explained?

     Let us firstly consider how expletives came to be introduced in OE and then how they came to be obligatory. Finally, we will consider the vexed issue of *there*’s optionality for an extended time period in OE and ME
Regarding the introduction of expletives into OE: we argue that this follows directly from the fact that OE and ME were spec pied-piping rather than head pied-piping systems. As noted above, expletives will always redundant in a head pied-piping system since systems of this type target D-features on $v$. If we view expletives as a “last resort” means of supplying the T’s $v$P-complement with a D-feature (cf. Richards & Biberauer 2004a), it is clear that expletives will never need to arise in head pied-piping languages. Hence the impossibility of *es* in impersonal passives such as (9). In the context of spec pied-piping languages, by contrast, expletives are not simply redundant since an expletive can either:

(a) act as a “last resort” D-supplier wherever T’s $v$P-complement lacks this feature (in this case, expletives are therefore crucial to ensure convergence), or

(b) facilitate DP-raising of the kind that spec pied-piping systems systematically allow as an alternative to $v$P-raising.

We therefore submit that expletives initially arose in OE to fulfil a “last resort” role of the kind outlined in (a), whereafter their use became more and more widespread as various pressures (e.g. loss of VP-movement followed by loss of object-fronting, the possibility of “verb projection raising”, the reanalysis of V2 structures as SVO structures, etc.) led to the DP-raising mode of EPP-satisfaction being employed ever more commonly. In particular, it is worth noting that presentationals of the kind illustrated in (39c) might not, at first sight, seem to require the presence of an expletive in Spec$v$P in order to ensure convergence: the $v$P in structures of this kind necessarily contains a DP (the associate) and consequently expletives clearly cannot be fulfilling a “last resort” function in contexts of this kind. Note, however, that exclusive raising of the DP in presentational contexts would, on standard analyses of such constructions (cf. *inter alios* Diesing 1992), result in a non-presentational reading. To facilitate the presentational reading in a system that systematically alternates between $v$P-raising (where the DP associate remains *in situ* and the presentational reading is therefore unproblematic) and DP-raising (where the DP associate cannot remain *in situ* in the absence
of an alternative D-bearing Goal for T’s EPP-feature), expletives would therefore appear to be necessary. We thus assume that this sort of consideration led to their initial rise in OE (note that the presence of an expletive in SpecvP would not need to guarantee the implementation of the DP-mode of EPP-satisfaction; just as in other cases where SpecvP is filled by a DP, the presence of an expletive in SpecvP would only facilitate this possibility). The question that therefore remains is what ultimately determined the obligatoriness of expletives evidenced by Modern English?

Our proposal takes into account the fact that expletives only finally appeared systematically after the change to SVO order was complete, i.e. in the late 15th century. In this connection, van Kemenade (1997: 350) observes that “[t]he loss of V2 and the loss of expletive pro-drop … coincide historically” (cf. also van Kemenade, 1987). In our terms, this can be explained as follows: the loss of V2/regularisation of SVO ordering in the late 15th century represents the point in English’s development where it changed from being a spec pied-piping system to being a spec-raising one. As such, the expletives which could previously optionally be merged in SpecvP now had to be obligatorily merged there (we return to the question surrounding the optional status of expletives directly). At the point at which SVO ordering became the norm in the late 15th century, T’s EPP-feature had therefore become specialised for DPs only, with the result that expletives obligatorily had to be present in the manner that we see they are in Modern English. In our terms, the obligatoriness of expletives in Modern English therefore follows from the necessity of there being a “raisable” DP in SpecvP. In the context of existential/presentational constructions of the kind mentioned above, this had the specific consequence in OE and ME that it was no longer possible for a derivation to converge in the absence of an expletive, “ raisable” DPs necessarily being unavailable in this case (see preceding discussion). There was thus obligatorily merged in SpecvP wherever this circumstance arose and structures featuring there in clause-internal position, of the kind illustrated in (41), became the exceptionless norm:
(41)  (a)  why is there not a schole for the wardes
why is there not a school for the wards

“Why isn’t there a school for the wards?”

[Latimer 28; Rissanen 1994: 342]

(b)  In Egypt there be 5 provinces

“In Egypt, there are 5 provinces”

[Mandeville 29.28; Williams 2000: 168, 12]

On our analysis, therefore, the obligatorisation of expletives follows from a change in
the nature of the late ME grammar: whereas T’s EPP-feature was satisfied via vP-raising
(pied-piping) which could alternate with DP-raising (non-pied-piping) during earlier stages of
ME, only the non-pied-piping mode of satisfaction remained available from late ME onwards
(cf. (35) above).

What we still need to account for, however, is another aspect of the rise of expletives
that has often been commented on and that we have also highlighted above: the fact that these
expletives appear sporadically in clause-internal (i.e. post-C) position during the 13th – 15th
centuries. To date, this empirical fact has mostly been “explained” by appealing to the notion
that OE and earlier ME were able to license a null expletive (pro) counterpart of there and
that this null element is the one satisfying T’s EPP-requirement in the absence of an overt
expletive. A significant difficulty facing this kind of account, however, is that there does not
seem to be any way in which the licensing and distribution of overt vis-à-vis covert expletives
can be satisfactorily explained (see Biberauer 2004 and Richards & Biberauer 2004a for some
discussion), and the problem is clearly particularly acute in the ME context since there
appears to be evidence that the same author alternated between the use and omission of
expletive there (consider, for example, (40b) and (40c) above). What we would like to
suggest is that the analysis we are proposing here not only offers a non-stipulative explanation of this seemingly intractable variation data, but in fact predicts it. Let us see how this works.

In terms of the pied-piping analysis that we have outlined, OE and early and middle ME could employ one of two modes of satisfying T’s EPP-feature: vP-raising or DP-raising. For vP-raising to satisfy T’s EPP-feature, it is sufficient for there to be an unraised subject-Goal contained within the vP, with the consequence that there is not required in this case. We therefore expect to find structures of the kind illustrated in (39a-c) and also there-less (40b) as T’s EPP-feature is, in these cases, satisfied by vP-raising which enables T’s D-feature to be valued by the DP-subject contained within the vP. However, as exclusive DP-raising (i.e. the non-pied-piping mode of EPP-satisfaction) becomes more and more prevalent during the ME period, it becomes necessary for a raisable element to be present in SpecvP in existential/presentational constructions. There thus begins to feature in the Numeration/Lexical Array from which vPs are constructed, being earmarked as a SpecvP-element, and not just, as was previously the case, in Numerations from which the CP-phase is constructed and in which there was reserved for merging in SpecCP. Wherever an expletive is present in the Numeration, two options are therefore available to satisfy T’s EPP-feature: sole movement of the expletive which is merged in SpecvP or movement of vP containing the expletive in its outermost specifier. Whenever an expletive is absent, there is, however, only a single possibility, namely vP-raising. Our analysis therefore predicts that we should find systematic variation in the presence versus absence of there in clause-internal position (SpecTP) for as long as vP-raising is available as a means of satisfying T’s EPP-features and this is in fact the case, with English having exhibited precisely this kind of variation over an approximately 300 year period of ME (we also account for the fact that the expletives are sporadically found in OE, since OE had the option of pied-piping or DP-movement as described in section 3; if the DP-movement option is taken, then an expletive must be merged and raised in the absence of a DP-argument). Since vP-raising is the mode of EPP-satisfaction
that was lost when English became a DP-raising language in late ME (cf. (35) above), we no longer expect to find this systematic variation after the reanalysis had occurred and this is also borne out. Our analysis therefore enables us to account for both the variation and the change that affected the distribution of expletives in the history of English.  

The analysis we propose is confirmed by two further considerations: firstly, the existence of passive and unaccusative structures without DP-movement until the 15th century; and, secondly, the loss during the 15th century of “impersonal verb” structures which frequently lacked a nominative subject or, at best, featured this subject in a “low” position that clearly cannot be SpecTP. Let us briefly consider each of these developments in turn.

The examples in (42) illustrate clauses featuring unraised subjects of various kinds:

(42)  
(a) And in þis tyme were sent writis þorowoute þe lond  
And in this time were sent writs throughout the country  
“And in this time, writs were sent throughout the country”  
[Capgrave Chronicles 213.72; Haeberli 1999: 420, 29a]

(b) … for in þis lityl silable ben conteyned alle þe wittis of þe spirit  
… for in this little syllable are contained all the wits of the spirit  
“…because all the wits of the spirit are contained in this little syllable”  
[Cloud 75.275; Haeberli 1999: 420, 29c]

(c) And in his tyme was born Ihesus Crist oure saueoure  
And in this time was born Jesus Christ our saviour  
“And in this time, Jesus Christ our saviour was born”  
[The Brut 3,33.1029]

(42a) and (42b) are examples of passives where it is quite clear that the logical object has not undergone raising since, in both cases, it follows the passive participle. Similarly, in (42c), we have the unaccusative verb born and we observe that its internal argument has clearly not moved to the subject position (which is, presumably, between the auxiliary was
and the lexical verb). All of these are plausibly V2 clauses with a prepositional phrase in SpecCP, the auxiliary (*be* in every example) in C and SpecTP apparently empty. Van Kemenade (1997) observed that SpecTP is apparently able to remain empty in ME exactly in passives and unaccusatives where DP-movement does not take place (cf. also Pintzuk 1999: 161ff). On our analysis, however, SpecTP is in fact filled in these cases: the fronted *vP* occupies this position. The representation of (42a) is therefore as follows: 18

(43) \[ \text{CP In ēs tyme } [\text{C were}] [\text{TP } [\text{vP sent writtis } \text{þorowoute } \text{þe lond}] \text{ T t}_{vP}] \]

We therefore see that the availability of this construction depends on the possibility of *vP*-movement to SpecTP. Consequently, we predict, correctly, that the construction disappears in the 15th century with the loss of *vP*-movement (see van Kemenade, 1997: 348ff).

As mentioned above, the second development that becomes explicable under our analysis relates to constructions featuring what Lightfoot (1991: 128ff) refers to as *impersonal verbs*. Structures of the relevant kind are illustrated below:

(44) (a) ac Gode ne licode na heora geleafleast
    but God.DAT NEG pleased not their faithlessness.NOM
    “but their faithlessness did not please God”
    \[Ælfric’s Homilies 10.71; van Kemenade 1997: 334, 16c\]

(b) hine nanes þinges ne lyste on þisse worulde
    him.ACC nothing.GEN not pleased in this world
    “Nothing in this world pleased him”
    \[Boethius 102.9; van Kemenade 1997: 335, 17a\]

(44a) features a “low” nominative which cannot have raised to SpecTP, while (44b) does not contain a nominative-marked element; *licode* and *lyste* both belong to Lightfoot’s class of *impersonal verbs*. His observation in connection with the distribution of these verbs throughout the OE and ME period is what is significant in the present context:
“In Old English there were over forty verbs … with two NPs but no nominative subject. Indeed some new verbs were added to this class during Middle English, in some cases having been borrowed from personal verbs in French or Old Norse. However, several of the verbs occurring in sentences like [44] disappeared from the language altogether by the end of the Middle English period, some developed an expletive subject (ii), and some were apparently reanalyzed in such a way that one NP came to act as a structural subject with nominative case. Consequently, impersonal verbs had effectively disappeared by the early modern period, no longer triggering any grammatical device which might have served to generate them and keep them productive.” [Lightfoot 1991: 128]

In terms of the analysis we have presented here, both the nature and the timing of these developments are unsurprising: once SpecTP has become a specialised subject position, something that we propose happened during the late 15th century, vP-raising to SpecTP is no longer available and consequently an appropriate subject-DP is thereafter required to undergo raising to this position. This DP must be nominative because it has to Agree with T (in any case, overt dative and accusative were by this time lost in non-pronouns, and the accusative-dative distinction had been lost in pronouns (cf. Allen 1995: 158).

The timings that we have proposed for the changes in (26) and (35) raise one question that we have not addressed so far. Recall that we proposed that the v-related change schematised in (26) took place first, with vP-movement still taking place after this change. Assuming this to be correct, we can still account for SOVAux orders of the kind that continued to surface during the ME period by postulating a structure such as that illustrated in (45):

(45) \[ TP \left[ vP \ S \ O \ V-v \left[ vP \ tV \ tO \right] \right] T \]

As shown in (45), SOVAux orders are still derivable after (26) has occurred if we assume that object-movement has taken place within the vP-phase (rather than the VP-remnant movement that was still available prior to (26) and that, we argue, underlay many of
the SOV(Aux) orders in OE). The interaction between (26) and (35) also poses an apparent problem, however: the combination of absence of object-movement (increasingly frequent due to the specialisation of the feature triggering object-movement that we observed earlier) and the presence of vP-movement should allow us to derive an order that has frequently been observed to be unattested in Germanic, namely the order *SVOAux (cf. Hróarsdóttir, 2000; Kiparsky, 1996, 1997; Roberts, 1997; Travis, 1984; Trips, 2002). Our solution to this problem once again draws on phase-theory and, in particular, the version of the PIC outlined in (14) and repeated here as (46):

(46) In a phase α with head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations.

Let us consider how a derivation that would ultimately deliver the barred *SVOAux order would proceed. Firstly, as we have noted above, object-raising would fail to take place. The object therefore remains inside VP. In accordance with the PIC in (14)/(46), the object will thus be located in the complement of the phase-head v, with the result that it will need to be transferred to PF at the end of the vP-phase. In conjunction with the PIC, the absence of VP-/object-movement will therefore effectively “freeze” the object in place (cf. also our discussion of “object-stranding” structures such as that in (24)). Consider the structure in (47) in this connection:

(47) [TP [vP S V-v ] T vP [vP vV O ]]

The VP here is given in outline form in order to indicate that after vP has been completed, the complement of v (i.e. VP) is inaccessible to further operations by the PIC in (46). So when T is merged, the PIC has the effect that the material in the complement domain of v, crucially including VP, cannot be affected by further operations (presumably, because it has already been transferred to PF). Hence the object cannot be affected by vP-movement, but is effectively spelled out in its Merge position. The surface order SVOAux is thus underviable, just as we know it must be.\(^{19}\)
4.3 Conclusion

To conclude this section, let us summarise the major changes that we postulate for ME:

(i) VP-movement to Spec\(v_P\) is replaced by object-shift; this change took place in early ME, and involved the systematic replacement of pied-piping of VP with movement only of the object-DP, “stranding” the rest of VP; and

(ii) v\(P\)-movement to Spec\(TP\) is replaced by systematic subject-raising, with expletives supplying the necessary D-feature where required; this change took place in late ME, and can similarly be seen as involving the replacement of v\(P\)-pied-piping with movement only of the subject-DP (or, under the relevant conditions, of an expletive).

There is a clear parallelism between these two changes, in that both involve stranding replacing pied-piping, leading ultimately to reanalysis of the movement operation. We would, however, still like to know what caused these changes. Following Lightfoot (1991: 44ff.), we observe that certain syntactic “signposts” indicate to acquirers that German and Dutch are OV languages, despite the fact that main-clause evidence very frequently indicates VO order owing to the effects of V2. These “signposts” include the fact that particles are always stranded by verb-movement under V2, that negation consistently marks the left edge of VP and the fact that a non-finite verb may appear in the same clause as a restructuring trigger such as a modal or an aspectual auxiliary.

Lightfoot goes on to observe, correctly, that these “signposts” are absent, infrequent or obscured in OE and, crucially early ME. It is well known that verb-particle constructions in OE show a range of orders which are impossible in contemporary West Germanic, some of which we discussed in section 3. Furthermore, it has been observed that verb-particle constructions generally are much rarer in early ME than in either OE and Modern English (see Spasov, 1966; this may in part be due the large amount of vocabulary borrowed from
French at this time). Furthermore, OE negation, as is well known, was expressed by the particle *ne*, which appeared in front of the finite verb, so this OV “signpost” is completely lacking in OE. Additionally, we also note that compound tenses are considerably less common in OE than in West Germanic (see Traugott, 1972). We therefore conclude, in agreement with Lightfoot, that the trigger experience for a “head-final” system, i.e. in our terms, for VP- and vP-movement, was crucially obscured in comparison with that available to acquirers of contemporary West Germanic languages. This, in conjunction with the availability of stranding (i.e. DP-movement), disfavoured the postulation of vP- and VP-movement.

A markedness-related consideration may also be relevant here. Suppose, following Clark & Roberts (1993) and Roberts & Roussou (2003), that the parameter-setting device has an inbuilt preference for relatively simple structures. It is clear that the “stranding” option, since it involves moving, and thus copying, less material than the pied-piping option, creates less structural complexity. Therefore the stranding option can be thought of as less marked than the pied-piping option. This would create pressure in favour of the stranding option unless the pied-piping option is robustly triggered. As we have just seen, the pied-piping option was not robustly triggered in OE and early ME.21,22

5. PARAMETER INTERACTION

Here we highlight two general points concerning parameter interaction in syntactic change which are raised by our analysis of the changing EPP-satisfaction mechanisms in English.

The first point concerns what might be called *parametric harmony*: we see that the satisfaction of the EPP-features associated with two of the main clausal functional heads changes in uniform ways. These are natural changes, to the extent that they involve simplification of structure (see Note 21). Moreover, this kind of parametric harmony may
well underlie cross-categorial harmony in the sense of Hawkins (1980, 1983): the often-observed fact that languages tend to be consistently “head-final” or “head-initial” order across a range of categories (see Dryer, 1992 for extensive discussion of this). This kind of harmony is only a tendency, and, as such, cannot be directly induced by any formal property of grammar. We speculate that it may be due to a kind of “least-effort” strategy applied to parameter setting. It has often been proposed that, for example, the major clausal functional heads are isomorphic in their parametric properties in that each one allows for a formally similar or perhaps identical range of variation; the analysis proposed above postulates this for T and v.  Suppose, then, that other things being equal, language acquirers will, given evidence for a particular setting of one of a series of isomorphic parameters, set all the isomorphic parameters in the same way. This will have the effect of creating the tendency for cross-categorial harmony, and it will remain only a tendency since this least-effort strategy can easily be overridden by primary linguistic data. In this connection, we may be able to explain why T’s pied-piping option was lost, by seeing it as a consequence of v’s having lost its EPP feature. In late ME, when most object-movement (of non-quantificational, non-negative objects) had already been lost, pied-piping of vP only gives rise to a different word order from non-pied-piping when an auxiliary is present. In all other cases, the order is always $S – V – X – O$. This order does not unambiguously cue vP-pied-piping, being compatible with DP-movement to SpecTP. It is possible that the $V – X – O$ was reanalysed as V-to-T at this stage (an operation that was of course lost in early Modern English).

The second point concerns what we might call parameter conspiracy. In the Introduction, we characterised this as the idea that setting a parameter $P_i$ to a given value may, in interaction with the value of a second parameter $P_j$ ($i \neq j$), give rise to a specific grammatical phenomenon which is not a consequence of the value of either parameter on its own. The rise of clause-internal expletives in late ME appears to be a case of this type. As we showed in section 4.2, the rise of expletives in SpecTP position was a consequence of the loss
of vP-pied-piping as a way of satisfying T’s EPP-feature. But the loss of pied-piping on its own is not enough to guarantee the development of expletives. It is well-known that null-subject languages typically lack overt expletives (see Rizzi, 1986; but for a case of a null-subject language with overt expletives, see Holmberg’s 2002 discussion of Finnish), but it is not the case that all null-subject languages have vP-pied-piping to SpecTP; this would create surface Aux-final orders at the clause level, assuming auxiliaries are merged in T. In many null-subject languages, e.g. the Romance languages and Modern Greek, such orders are not found. It must therefore be the case that a positive value of the null-subject parameter can coexist with a system in which T’s EPP- and D-feature are satisfied otherwise than by vP-raising. As noted in section 2, Alexiadou & Anagnostopoulou (1998) propose that the “rich” agreement morphology of V characteristic of null-subject languages instantiates a D-feature which is carried to T by V-movement, thereby satisfying T’s D- (and EPP-) features.24 This approach is compatible with our system and is in fact explicitly incorporated into the system proposed by Biberauer & Richards (2004). This approach also allows for non-Aux-final null-subject languages and predicts that null-subject languages lack overt expletives. Thus, for a language to have overt expletives, two independent properties must hold: T must satisfy its EPP- and D-features without obligatorily pied-piping vP and V must lack the “rich” agreement associated with a D-feature. Both of these properties held in both late ME and early Modern Swedish, leading to the rise of expletives in SpecTP. We see therefore that expletives of this type do not arise from the setting of a single parameter, but rather from the interaction of two distinct parameters (both of them involving the relation of D-features to T). A further point is that these considerations apply solely to expletives which appear in SpecTP; those which appear in SpecCP can in fact coexist with a positive value of the null-subject parameter (this is arguably the case in Old French – cf. Adams, 1987; Roberts, 1993; Vance, 1997, and possibly Finnish – cf. Holmberg, 2002).
It follows from the above that null-subject languages may lose pied-piping of vP to SpecTP with no consequences for the distribution of subjects, but simply word-order change, something which has arguably happened both in the history of Greek (Taylor, 1990, 1994) and Romance (Harris, 1978), to the extent that both have moved from head-final to head-initial while remaining null-subject languages (French became a non-null-subject language, but this happened many centuries after the word-order change).

The more general point here is that the rise of a single surface property may depend on the change in the value of one parameter against the background of a static value for another independent parameter. Given that it is well-known that a single parameter may underlie an apparently disparate set of surface phenomena (Rizzi, 1982), this means that the relation between surface phenomena and parameters is many-to-many.

6. CONCLUSION

We have proposed a novel analysis of word-order change in the history of English, which relies on the central idea that there exist in principle two different ways of satisfying the EPP- and D-features of two of the main clausal functional heads, T and v: by DP-movement or by “large XP” (vP or VP) movement where the Goal (DP in both cases) is contained in the “large XP”. The central mechanism which distinguishes these options is pied-piping: the former represents the non-pied-piping mode of EPP-satisfaction and the latter the pied-piping mode. Pied-piping is independently needed, and it has long been known that languages differ in the extent to which they require or disallow it, notably in wh-movement constructions (cf. the brief discussion of English vs. French in section 2). Furthermore, pied-piping is allowed for in the current version of the theory of syntax (i.e. that put forward in Chomsky, 2000, 2001, 2004), which distinguishes the feature-checking Agree relation from the EPP-induced movement relation. We are thus adding nothing to the technical devices available in the theory in making the proposals we have made here. Moreover, we are able to capture the
word-order variation and change we discuss while restricting ourselves to a rather simple conception of clause structure, one containing only the functional heads T and v. Also, we do not face the predicament that generally confronts “Kaynian” analyses, namely that of specifying what the trigger for the required “large XP-movements” could plausibly be and how this trigger could ever change so that word-order change can be accounted for. On our analysis, the trigger – an EPP-feature which requires a D-bearing category with which the head in question has entered into an Agree relation to undergo movement to the specifier of that head – is no different from the kind of trigger that non-Kaynian Minimalist analyses assume. Furthermore, we do not need to postulate that the trigger changes in any a priori implausible manner: in the case of T, pied-piping as a means of satisfying the D-related EPP-feature is simply lost, but the featural content of T ([D, EPP]) otherwise remains the same; in the case of v, pied-piping is once again lost as a means of satisfying v’s D-related EPP-feature, whereafter a further, seemingly natural change takes place, namely that v’s EPP-feature comes to target only a subset of D-categories. If we think of an EPP-feature as “a feature-of-a-feature” (cf. Pesetsky & Torrego, 2001), we can say in this case that v’s EPP-feature became specialised during the ME period, becoming associated with features ([Q] and [Neg]) which may be viewed as sub-features of D. In other words, the D-oriented Probe on v can be said to have become “less myopic” in terms of the category it enters into an Agree relationship with, looking further “into” the feature-bundle of the DP it probes than was previously the case, with the associated EPP-feature consequently only being able to raise a subset of the DPs it formerly raised (as obligatory EPP-driven movement is parasitic on Agree).

Another strength of the present proposal is that it enables us to account for the various word orders that surface in OE and ME and, crucially, also for the apparently stable variation that existed over long periods of time during the history of English without having to postulate competing grammars. On our analysis, the attested variation simply follows from
the fact that there exist two mechanisms for satisfying the same features of a given head, with the mechanisms counting as “the same” from the perspective of the grammar. In terms of this system, therefore, the kind of variation found in OE and ME and also the word-order changes that ultimately took place during the history of English, emerge as entirely natural and predictable.

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REFERENCES


| Source: [D] on Vf         | Source: [D] in outer Spec|P |
|--------------------------|--------------------------|
| Size: [-pied-piping]     | Head raising             | Spec raising            |
| Size: [+pied-piping]     | Head pied-piping         | Spec pied-piping        |

Table 1: Typology of modes of (T-related) EPP-satisfaction
<table>
<thead>
<tr>
<th>Language</th>
<th>Source of φ-features (Goal)</th>
<th>EPP movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>English, MSc.</td>
<td>D(P) in outer SpecvP</td>
<td>DP-to-SpecTP</td>
</tr>
<tr>
<td>Greek (pro-drop)</td>
<td>φ-features on V-morphology</td>
<td>v-to-T</td>
</tr>
<tr>
<td>German</td>
<td>φ-features on V-morphology</td>
<td>vP-to-SpecTP</td>
</tr>
<tr>
<td>Afrikaans, Faroese</td>
<td>D(P) in outer SpecvP</td>
<td>vP-to-SpecTP/DP-to-SpecTP</td>
</tr>
</tbody>
</table>

Table 2: A more detailed summary of the EPP-satisfaction typology illustrated in Table 1
* Earlier versions of the ideas discussed in this paper were presented at a workshop on Null Subjects held at the University of Cambridge (February 2003), the Conference on Null Subjects and Parametric Variation held in Reykjavik (July 2003), the Conference on Comparative Diachronic Syntax in Leiden (August 2003), the Comparative Germanic Syntax Workshop (CGSW18) held in Durham (September 2003) and the Diachronic Generative Syntax (DIGS VIII) conference held at Yale (June 2004). We thank the audiences at these conferences for their input, in particular Ans van Kemenade, Sabine Mohr, Davita Morgan, Susan Pintzuk, Wim van der Wurff and Jan-Wouter Zwart. We also thank two anonymous reviewers for their detailed comments and suggestions. The usual disclaimers apply. We also acknowledge the financial support of the Arts and Humanities Research Board (AR14458).

1 As argued in Biberauer & Richards (2004), exclusively moving the Goal Vf in head pied-piping languages is also ruled out on input-based grounds: since implementation of V(v)-to-T movement rather than vP-movement to SpecTP would deliver an unattested word-order pattern (V1), it seems reasonable to rule out the possibility that speakers will postulate V-to-T raising (i.e. exclusive movement of the Goal) in head pied-piping languages (cf. Lightfoot 1979, 1991).

2 A number of other authors have recently proposed similar analyses for aspects of West Germanic word order: Haegeman (2000), Hinterhölzl (1997, 1999), Hróarsdóttir (2000), Julien (2002), Koopman & Szabolcsi (2000), Koster (2000), and Mohr (2004), among them. With the exception of Mohr, these researchers, however, all postulate significantly more “large XP”/“remnant XP” movement than Biberauer (2003), and none of them have a large XP moving into the position that, during the GB era at least, was most commonly viewed as being reserved exclusively for subjects (cf. Chomsky, 1981, 1982), i.e. the position which we refer to as SpecTP.

3 Note that examples with more complex sequences of auxiliaries, such as German daß Johann das Buch gelesen haben wird (“that John will have read the book”) can be analysed exactly as in (8iv), where the sequence Johann das Buch gelesen haben constitutes the fronted XP, with haben located in the head of X (which, for present purposes, we can think of as non-finite T) and wird being merged in matrix T. On the reasonable assumption that haben does indeed head a non-finite T-projection and that non-finite T is, like its finite counterpart, associated with D- and EPP-features, we can simply postulate matrix clause-like vP-raising to SpecTP to account for the ordering exhibited by the raised XP.
By “true expletive” we mean the occurrences of *es* which surface where there is no thematised subject, either by virtue of the fact that the construction in question is entirely rhematic, as in presentational constructions, or by virtue of the absence of a DP of any kind, as in impersonal passives such as (9).

The equivalents of (9) with the expletive present are grammatical in Dutch and Afrikaans. See Richards & Biberauer (2004a) for an account of this.

Note that this is true, regardless of the version of phase-theory that one adopts (cf. the two different versions of the theory outlined in Chomsky, 2000 and Chomsky, 2001). As indicated in the main text (cf. section 3.2), we assume the proposal in terms of which material is sent to Spellout on completion of a phase (i.e. vP or CP). If one were to assume, however, that material is only removed from the syntactic computation when the next phase-head is merged, it would still be possible to capture the restructuring facts in the manner that we propose. Our account of object-stranding (cf. section 3.2) would, however, not carry over, unless it is assumed that operations in a given phase are delayed until the next phase-head is merged, at which point they take place “all at once”. We leave the specifics of this matter for further research.

In assuming that the T
DEF-head of the infinitival complement of restructuring verbs projects a specifier, we depart from the analysis proposed by Zwart (2001). According to Zwart, one manifestation of T
DEF’s defectiveness is its inability to project a specifier (cf. also Grohmann, Drury & Castillo, 2000; Manzini & Roussou, 2000; Nasu 2001, 2002). Like Chomsky (2004), we, however, believe that there are good empirical reasons to assume that T
DEF does indeed project a specifier (cf. in this connection the minimally different analyses of “verb raising” and “verb projection raising” respectively which are facilitated by postulating a specifier for T
DEF).

An anonymous reviewer points out that the analysis described here may run into difficulties where the infinitival is a double-object verb. In such cases, the order *S – O – Aux – O – V* is possible, as the following examples show (thanks to the reviewer for these examples, which are from Taylor *et al* (2003)):

(i)  gif þa laereowas þis nellæp fæstlice Godes folce bebeodan, ..
    if the preachers this not-want constantly God’s people announce
    “if the preachers do not want to constantly announce this to God’s people”
    (cobllick,HomS_14_[B1Hom_]: 47.150.591)

(ii) ..þæt hi mine þeawas magon him secgan
    .. that they my virtues can him tell
    “.. that they can tell him my virtues”
    (coaelive,+ALS[Agnes]: 313.1932)
To see how our approach can handle such cases, note, firstly, that the examples given all feature control predicates. It therefore seems reasonable to assume that the embedded subject is PRO and that the embedded clause has the structure outlined in (iii):

(iii) \[
\text{TP} \left[ x_p \text{PRO}_{SUBJ} \left[ \text{VP} O tV O \right] V^+v^+T \right] t_p
\]

Matrix V (V_R) is then merged, followed by merger of matrix v, giving (iv):

(iv) \[
v \left[ \text{VP} V_R \left[ \text{TP} \left[ x_p \text{PRO}_{SUBJ} \left[ \text{VP} O tV O \right] V^+v^+T t_p \right] \right] \right]
\]

At this point, v, as usual, probes for a D-bearing Goal. If we assume that PRO cannot be independently attracted by v (see below) and that it will therefore be “overlooked” when matrix v probes the contents of embedded SpecTP, it emerges that v’s Goal is in fact the highest overt DP, namely that located in SpecVP. As ever, matrix v therefore has two options: either it can raise just the Goal (i.e. the object in SpecVP) or it can pied-pipe the entire category containing the Goal (i.e. the VP containing O tV O). In the former case, we get the attested “verb-raising” order, \(O – O – \text{Aux} – V\) and in the latter, we get the “stranding” order, \(O – \text{Aux} – O – V\). Merger of the PRO-controlling subject then follows EPP-driven movement to specvP. The question that remains, however, is why PRO should be invisible to matrix v. In the main text (cf. discussion surrounding (24)), we argue that OE v’s EPP-feature is in fact optional in the Fox-Reinhart sense alluded to in Chomsky (2001: 34, 2004: 112) and, further following Reinhart (1995), that v’s optional DP-attracting property is specifically related to defocusing. If this is indeed the case, PRO’s “invisibility” would follow as only phonologically overt DPs can be defocused.

A final point to note is that the analysis of structures like (i) and (ii) presented in this footnote may carry over to the “verb raising” and “verb projection raising” structures discussed in the main text. In other words, these structures (which involve the same class of matrix/selecting predicates) may, contrary to what we have indicated in the main text, also involve an embedded PRO subject which cannot act as a Goal for the EPP-feature that matrix v may optionally bear. If this is correct, the presence of an optional (defocusing) EPP-feature on matrix v will trigger either VP-raising (pied-piping) or object-raising (stranding), generating “verb raising” structures of the kind illustrated in (13) as a result. “Verb projection raising” structures, by contrast, fall out from the absence of an EPP-feature on v. We leave the precise details of the analysis of such structures for future research.

9 The fact that V need not be adjacent to O in structures of the kind illustrated in (21) suggests the correctness of the view that OE structures of this kind should not simply be analysed in the same way as their Modern English counterparts where V-O adjacency is obligatory.

10 As observed in Note 8, this take on the optional presence of EPP-features essentially reflects the ideas proposed by Fox (1995, 2000) and Reinhart (1995, 1997).
Pintzuk (1999) gives a few OE examples of this type, although she observes that they are from late OE. They could therefore reflect an early stage of the change.

A reviewer points out that we also need to account for OE Prt-V order where there is apparently no direct object. What causes the remnant VP, containing just the particle, to raise to Spec\(v\)P in the absence of an element with D-features in VP? To answer this question, we follow Hale & Keyser (1993, 2002) in assuming that (unergative) intransitives are always associated with a cognate object, which incorporates into the verb. The incorporation process endows the verb with a D-feature, hence VP can be attracted by \(v\)’s D-feature. Richards & Biberauer (2004a) assume something similar to account for the possibility of \(v\)-raising to SpecTP in the absence of any overt D-material in impersonal passives (cf. German (9)); in this case, however, the “absorbed” external argument postulated by Baker, Johnson & Roberts (1989) is assumed to supply the required D-feature.

It should also be noted that the analysis that we proposed for German in section 2 (cf. the discussion surrounding the derivation of (6)) in terms of which auxiliaries are merged in \(T\) requires us to assume that the \(v\)P-internal D-feature sought by \(T\)’s Probe must in fact be located on the non-finite verb selected by the auxiliary. Wherever this auxiliary is a passive auxiliary, the “absorbed” argument can plausibly be said to function as a Goal for \(T\), as outlined for impersonal passives above. Since Germanic infinitives and participles have also frequently been argued to exhibit “mixed” nominal and verbal characteristics, it would seem that these elements can also realistically be viewed as suitable Goals for \(T\)’s D-Probe in head pied-piping languages like German. We leave the specifics of this matter for future research.

We find orders like that in (31) in OE too. Example (i), supplied by a reviewer, illustrates:

(i) Dunn hafað þas boc gesald his wife

Dunn has this title-deed given his wife

“Dunn has given this title-deed to his wife”

(ch1514 (Rob9) 1); Koopman, 1994: 59)

This is predicted by our analysis of OE, as it follows from a derivation in which the non-pied-piping/stranding option is employed.

It may in fact be the case that OE was at some stage (either during its early documented history or before) a head pied-piping language which always targeted a D-bearing head – either D-bearing \(v\) or the D-bearing N/D of a nominal DP, regardless of its position, with the latter option having to be taken more and more frequently as \(v\)’s inflectional morphology became more scant. The rise of greater positional rigidity then led to a situation in which \(T\) began to locate the D-bearing N-/D-head more and more consistently in Spec\(v\)P, with the result that a reanalysis eventually occurred in terms of which the contents of Spec-\(v\)P specifically (i.e. the DP as...
a whole) became established as T’s canonical Goal. In this way, a spec pied-piping system can plausibly arise out of a head pied-piping one.

There is no significant loss of verbal inflection between OE and ME, as might be expected, given what is stated in the main text. However, the presence of verbal agreement does not preclude the development of argumental expletives. As suggested in the text, non-argument expletives develop later, at a time when inflection is being lost. Note that the rise of expletives in Swedish and Dutch also followed the same, staggered pattern as that exhibited by earlier English (cf. Falk 1993a, 1993b in the former connection and Burridge, 1993 for Dutch; for a brief overview of the rise of expletives across Germanic, see Biberauer 2004).

These developments closely parallel those which took place in Swedish; see Falk (1993a, 1993b) and Platzack (1988).

We also note that the non-argumental *it*-expletive in so-called easy to please constructions appears to have become obligatory at around the same time as the *there*-expletive we have been considering here (cf. van der Wurff 1990). On our analysis, this would follow from the same considerations as the ones that led to the regularisation of *there*, namely the fact that SpecTP became a specially designated subject position which could no longer be occupied by any constituent other than the subject or some subject-related “dummy”.

An anonymous reviewer points out that examples just like those in (42) are found in contexts which are unlikely to be V2. Consider the following examples in this connection:

(i) On ðam þe wæs behyd se heofonlica wisdom
on which that was concealed the heavenly wisdom
“… on which heavenly wisdom was concealed”
[Taylor, A. et al, 2003: 159.3304]

(ii) Thanne shalt tow considere of what roote is engendred the matiere of thy conseil
then shall you consider of what root is engendered the matter of your counsel
“Then you must consider which root the matter of your counsel is engendered from”

The crucial question for our analysis concerns the position of the auxiliary in these examples. If we assume it occupies $v$, then there is no obstacle to postulating $vP$-raising to SpecTP here. The $vPs$ undergoing raising in (i) and (ii) would therefore be *wæs behyd se heofonlica wisdom* and *of what roote is engendred the matiere of thy conseil* respectively.

An anonymous reviewer points out a possible alternative derivation for $S - V - O - Aux$. We begin from the stage of the derivation illustrated in (i), where the lower TP is complete:
Next, S raises to non-finite TP, i.e. the non-pied-piping option, which is also implemented in (22), giving the order SVO. Next, the D-feature on matrix T is satisfied by S, but here the pied-piping option is taken and so the entire non-finite TP moves to the matrix SpecTP. This yields the order $S \rightarrow V \rightarrow O \rightarrow Aux$. We rule out this possibility by observing that, for reasons that are unclear, finite TP-movement is not found in any Germanic language (cf. Wurmbrand, 2004a). The direct objects in (i) and (ii), as well as that in (43), would have been spelled out with VP, owing to the operation of the PIC. See the discussion of (47) below.

20 For Lightfoot (1989), this is required by his proposed degree-0 learnability theory, which states that only main-clause evidence is available for language acquirers. We do not commit ourselves to this view; for our purposes it is sufficient to note that main clauses are much more frequent in the primary linguistic data than embedded clauses.

21 Given that in our analysis the featural properties of movement triggers do not change, the simplicity metric cannot be a feature-counting one of the type put forward by Roberts & Roussou (2003: 203). Instead, it must involve node-counting, as proposed by Clark & Roberts (1993: 313), since the non-pied-piping grammar involves movement and therefore copying of less material than the pied-piping one.

22 Here the question may arise as to what allows OV systems to ever be stable, as of course many are. In addition to robust trigger experience, it is possible that pied-piping in some cases results from probing the head of the pied-piped category rather than its specifier (cf. the discussion of head pied-piping languages in section 1). This idea is developed in Biberauer & Richards (2004); see also Section 4 for brief discussion. Note that the markedness approach does predict, correctly, that OV changes to VO more readily than VO to OV (see Kiparsky, 1997).

23 To a certain extent, we can attribute a similar possibility of variation to C. It has often been observed that in late ME the modern, highly restricted “residual” V2 system emerged. This can naturally be seen as specialisation of the EPP-feature associated with C, parallel to what was observed for $v$ in Section 3.

24 It is well-known that East Asian languages allow null arguments in the absence of “rich” agreement (see Huang, 1984, 1989). Tomioka (2003) suggests that this is correlated with the ability of bare Nouns to function as arguments and the presence of NP-ellipsis in a given language. If this is true, then such languages do not represent a counterexample to the correlation of rich agreement and the possibility of null subjects in languages such as Romance and Greek.