ON THE POSITION OF INFL IN OLD ENGLISH

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In this paper, we attempt to determine the underlying word order of Old English (OE) including the position of INFL. We will show that Early OE and Late OE are SOVI (S-VP-I) and SIOV (S-I-VP) languages, respectively, pointing out a striking difference in the distribution of stressless pronouns between them. On the basis of the underlying word order change in the history of English, we will propose a principle regulating word order change, which we call here the Principle of Parameter Percolation (PPP).*

0. INTRODUCTION. Within a principles-and-parameters framework, the notion of underlying word order is essential in discussing the parametric variation of languages, and the rigidity and freeness of word order. Underlying word order is one of the more obvious ways in which languages differ, and in some languages, a kind of movement rule applies to underlying structures to yield their variants, which is called a scrambling effect.

In light of two theoretical issues mentioned just above, a consideration of the underlying word order of OE is interesting, because there are similarities and differences in word order between OE and other Germanic languages and OE shows scrambling effects. In this paper we argue that Early OE is an SOVI language but that Late OE is an SIOV language. We will thus show that there was a change in position of INFL in the OE period.

This paper is organized as follows. In section 1, we review the previ-

* This paper is a slightly revised version of a paper read at the Seventh General Meeting of the Modern English Association held at Shujitsu Women's University on May 18, 1990. We are grateful to Satoshi Ohta and two anonymous EL reviewers for their helpful comments and suggestions. Thanks also go to Roger Martin for suggesting stylistic improvements. All remaining errors, needless to say, are ours.
ous studies on the underlying word order of OE. Furthermore, referring to Travis 1984, we introduce a test which distinguishes between S-I-VP languages and S-VP-I languages. In section 2, utilizing the test, we determine the underlying word order of OE including the position of INFL. In section 3, we explore the implications. In section 4, we explain exceptions to our analysis.¹

1. PREVIOUS STUDIES.

1.1. ON THE UNDERLYING WORD ORDER OF OE.

1.1.1. TRADITIONAL AND PHILOLOGICAL STUDIES. The word order of OE has been one of the central topics in philology. It is discussed in much literature, as noted in Mitchell (1985: 959-60).

Traditionally, OE has been considered to be a free word order language. For example, Fries 1940 analyses the word order of OE along this line. But it has also been argued that though it is not rigid, the word order of OE is not completely free. Some linguists, like Jespersen 1894, who claims that OE is an OVS language, attempt to determine its underlying word order, and provide interesting descriptions. We will not utilize their descriptions for the following two reasons, however. First, they are often based on vague criteria. Second, thorough investigations of a particular text are not made. We present arguments here concerning the word order of OE from a different viewpoint, distinguishing between the Early OE period and the Late OE period.

1.1.2. GENERATIVE STUDIES. Lightfoot 1979 is an important dia-

¹ It does not undermine our arguments that we use poetical texts as data, as noted in Weerman (1989: 8):

(i) ‘Nor is it motivated to exclude a priori poetical texts. I certainly do not want to claim that the language in these texts is somehow representative. However, it would lead to absurdities if we were to assume that the constructions in epic works do not generally observe the rules and principles of grammar. And these rules and principles are what we are interested in. In fact, given the metrical character of these texts, it might even be possible to bring to light evidence that is hidden in prose.’

In fact, we will here utilize only poetical texts as data for the following two reasons. First, no prose work is available for us which was written in the Early OE period. Therefore we cannot compare the underlying word orders of Early OE and Late OE, using prose works as data. Second, as is shown later, our argument in this study is based on the distribution of stressless elements. We can easily determine whether a word appearing in poetical works bears stress or not.
chronic study of English from the perspective of generative grammar. He argues that OE is an SOV language, and discusses the diachronic change of word order in English.

Kemenade (1987) also concludes that OE is an SOV language, based on the criteria utilized in Koster (1975) for arguing that Dutch is SOV. Moreover, based on the SOV hypothesis, she analyses clitics and preposition strandings in the OE period.

Weerman (1989) also takes OE to be an SOV language. He observes that OE has the same characteristics that other SOV Germanic languages like German, Dutch and Frisian have. For example, they exhibit scrambling effects, but not Case-adjacency phenomena and *that*-trace effects.

Generative grammarians, unlike traditional grammarians, have drawn the conclusion that OE is an SOV language, based on explicit and reliable criteria. In this respect, their approaches are certainly superior to traditional ones.

It should be noted here, however, that in a generative framework, we need to discuss INFL as well as subject NPs, object NPs and verbs. What is conventionally labelled V in the discussion of word order actually refers to an inflected verb, and both V and INFL play a role in the occurrence of inflection on the verb. Nevertheless, none of the generative studies of the underlying word order of OE have addressed the question where INFL is and shown a way of determining the underlying position of INFL. In this respect, they are all insufficient.² ³

1.2. ON THE POSITION OF INFL IN GERMAN. Travis (1984) has made a close investigation of the position of INFL in German. Concerned with the issue of the underlying word order of German, she provides evidence which supports the S-I-VP hypothesis, but not the traditional S-VP-I hypothesis, based on the distribution of stressless pronouns in root sentences.

She suggests that a language with S-VP basic word order is INFL-sec-
ond, that is, S-I-VP, if it exhibits both so-called Verb-Second Effects (VSEs) in root sentences and a subject/object asymmetry as illustrated in the following German data:4

(1) a. Ich habe ihn gesehen. (with *ich unstressed)
   I have him seen
   'I have seen him.'

   b. *Ihn habe ich gesehen. (with *ihn unstressed)
     him have I seen
     'Him, I have seen.'

(2) a. Es hat das Brot gegessen.5
     it(NOM.) has the bread eaten
     'It has eaten the bread.'

   b. *Es hat er gegessen.
     it(ACC.) has he eaten
     'He has eaten it.'

Both 1 and 2 show that in German, the pronouns differ in their distribution depending on whether they function as subjects or objects. The stressless pronouns functioning as subjects can occur S-initially, whereas the stressless pronouns functioning as objects cannot occur S-initially. Her claim is that the existence and non-existence of this sort of subject/object asymmetry provide evidence for the underlying S-I-VP and S-VP-I orders of Verb-Second languages with basic S-VP word order, respectively.6

4 In Verb-Second languages like German, inflected verbs are always second in root sentences, whether subject NPs, object NPs or adverbs appear S-initially. This is not the case for non-Verb-Second languages like English as the English translations of (ib) and (ic) show:

   (i) a. Ich habe LGB gelesen.
        I have read
        'I read LGB.'

   b. LGB habe ich gelesen.
      'LGB, I read yesterday.'

   c. Gestern habe ich LGB gelesen.
      'Yesterday, I read LGB.'

5 Note that es cannot bear heavy stress.

6 Travis explains the subject/object asymmetries presented in 1 and 2 by distinguishing between pre-verbal positions subjects and objects occupy. The S-I-VP hypothesis offers a way out, because pre-verbal subject positions and pre-verbal object positions can be distinguished. Under the assumption that S' = CP and S = IP, subjects are in [SPEC/IP] and objects are in [SPEC/CP], as illustrated as follows:
To occur S-initially, objects must move to [SPEC/CP], which is assumed to be a position where only a stressed element can occur. Subjects, however, do not have to move to [SPEC/CP] to produce VSEs. Therefore we can easily explain why stressless pronouns can occur preverbally only if they are subjects.

Under the S-VP-I hypothesis, however, there is no way to distinguish between preverbal subject positions and preverbal object positions, as is shown below:

(ii) a. 

Both preverbal subjects and objects are always in [SPEC/CP]. This is why stressless pronouns cannot occur S-initially in S-VP-I languages having VSEs in root sentences, whether they function as subjects or objects.

Note that there are some reasons to believe that the change from an underlying
The followings are the formulations in the form of necessary and sufficient conditions:

(3) a. An S-VP language exhibiting VSEs in root sentences is INFL-second, that is, S-I-VP, if and only if stressless pronouns can occur S-initially only when they are subjects, but not objects.

b. An S-VP language exhibiting VSEs in root sentences is INFL-final, that is, S-VP-I, if and only if stressless pronouns, whether subjects or objects, cannot occur S-initially.7

Note that 3 implies the S-initial position in S-VP-I languages is always a topic position where only an element with heavy stress can occur when there is a VSE in root sentences, while the S-initial position in S-I-VP languages is either a topic or a non-topic position when there is a VSE in root sentences.

She does not present arguments concerning the underlying word order of OE.8 In the following section, we attempt to determine the position SOV structure to a surface SVO structure in Verb-Second languages is not due to stylistic rightward movement of objects. We do not discuss the reasons here on account of limited space.

A question may arise about a derivation of the SOV order in embedded clauses in German. A verb in final position is inflected in embedded clauses. INFL must move to V to generate an inflected verb in final position, because German is SIOV. If INFL lowers to V however, the ECP violation would arise. Travis (1984: 139-40), following Fabb 1984 and Roberts 1985, thus claims that a verb form is base-generated with an inflectional affix in embedded clauses and that an occurrence of this kind of verb should be restricted by some checking mechanism. She suggests that a finite verb in embedded clauses may be required to be governed by an INFL with an appropriate feature.

7 In languages having VSEs in root sentences, S-initial objects are always in [SPEC/CP]. There is thus no possibility in such languages that while stressless subject pronouns cannot occur S-initially, stressless object pronouns can occur S-initially. There is also no possibility that either of subject and object pronouns can occur S-initially without heavy stress. As far as we know, these kinds of Verb-Second language have not been reported yet.

8 She points out that Yiddish and Dutch, which have VSEs in root sentences, are also S-I-VP. In Yiddish and Dutch as well as in German, the stressless subject pronouns can occur pre-verbally, whereas stressless object pronouns cannot. See Yiddish and Dutch in (i) and (ii), respectively:

(i) a. Es hot gegesn dos broyt.
   'It ate the bread.'
of INFL in the OE period along the line taken by Travis.

2. THE UNDERLYING WORD ORDER OF OE

2.1. THE UNDERLYING WORD ORDER OF EARLY OE. It is well known that Early OE is very similar to German with regard to word order. Early OE as well as German exhibits SOV order in embedded clauses and VSEs in root sentences. Typical examples of SOV order in embedded clauses are:

(4) a. pa seo tid gewearð
Then the time became
paæ he friðgedal
that he death
dremman sceolde.
perform should

b. paet hie leofum men
that they beloved men
gerce gefremede.
help do

(GenA 1141b-2)

A typical example of VSEs in root sentences in Early OE is:

(5) Noe haefde,
Noah had
sunu lameches, syxhund wintra
the son Lamech's six hundred winters'
þa he mid bearnum under bord gestah,
when he with sons under the plank went
dugeðum dyrum.
with a lot of animals

(GenA 1368b-71a)

b. *Es hot di froy geleyent
it has the woman read
'The woman read it.'

(ii) a. Het heeft dat broodje gegeten.
it has that sandwich eaten
'It has eaten that sandwich.'

b. *Het heb ik gegeten
it have I eaten
'I have eaten it.'

(Travis 1984)
5 shows that there existed a sort of rule which raises a clause-final verb in a root sentence to second position.

Although these two languages are alike in the two respects mentioned above, no one has concerned himself with the issue of whether or not Early OE is similar to German in the underlying position of INFL, that is, whether or not Early OE as well as German is underlyingly SIOV (S-I-VP). As is noted in section 1.1.2, it is necessary to argue about the position of INFL in the discussion of word order. In this sense, it is very interesting to pose the question as to where the underlying position of INFL was in the Early OE period.

Since regardless of theoretical backgrounds, pronouns are assumed to be stressless in alliterative verse in the OE period, as shown in 6, where the pronouns, whether they are nominative, dative, or accusative, are stressless:

(6) a. s w w
    wisse he 3earwe
    knows he (NOM.) well (Beo 2339a)

b. s w w s w
    hruron him tearas
    fell him (DAT.) tears (Beo 1872b)

c. s w s w
    heold hine syd dan
    holds him (ACC.) since (Beo 142b)

we can make the following predictions, based on 3, about the position of INFL in Early OE:

(7) a. Early OE is an S-I-VP (SIOV) language if pronouns can occur S-initially in root sentences exhibiting VSEs only when they function as subjects.

b. Early OE is an S-VP-I (SOVI) language if pronouns, whether subjects or objects, cannot occur S-initially in root sentences exhibiting VSEs.

Now consider the following table to see how subject and object pronouns behave in the texts written in the Early OE period, such as Genesis A, Daniel and Beowulf:

The number of pronouns occurring in root sentences is written under *total*. The number of pronouns occurring at the very beginning of root sentences exhibiting VSEs is given next to it. The numbers in brackets show the number of exceptions to be discussed later. It is shown in this table that though nominative, accusative and dative pronouns are all found in root sentences in the texts written in the Early OE period, none of them occupy S-initial positions of root sentences with VSEs. It is possible to conclude that pronouns are prohibited from occurring S-initially followed by verbs in the Early OE period, regardless of whether they function as subjects or objects.

According to 7, the distributional property of pronouns in Early OE just observed above strongly suggests the S-VP-I underlying structure for Early OE. Our conclusion is thus:

(9) Early OE is underlyingly SOVI.

9 indicates that though they have the same characteristics, as mentioned earlier, there is a clear difference in underlying word order between Early OE and German. Early OE is INFL-final, whereas German is INFL-second. Therefore a S-initial position in Early OE must be char-

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acterized as being a topic position, which is not available for stressless pronouns, when there is a VSE in root sentences, whereas a S-initial position can be a non-topic position in German.\(^\text{10}\)

2.2. THE UNDERLYING WORD ORDER OF LATE OE. Like Early OE, Late OE is similar to German in two respects: SOV order in embedded clauses and VSEs in root sentences are both observed in Late OE as well as in German and Early OE.

Typical examples of SOV order in embedded clauses are:

\[(10) \ a. \ \text{paet hi on pam easte ealle stodon} \]
\[\text{that they on the river bank all stood (Mald 37)}\]

\(^{10}\) As Weerman points out, OE contrasts with Modern Germanic languages exhibiting VSEs like German in that VSEs are not always observed in root sentences in the former:

\[(i) \ a. \ \text{paet gewin mid ealle forlet} \]
\[\text{the conflict completely left} \]
\[\text{synnum aswefede, ...} \]
\[\text{with sins destroyed (Ex 335b-6a)} \]
\[\text{b. \ \text{gylice word Maria heold araefnigende on hire heortan}} \]
\[\text{such words kept pondering in her heart} \]
\[\text{(Weerman 1989: 24)} \]

There is no reason to believe that the S-initial positions of these sentences are [SPEC/CP]. Either a kind of stylistic rule would be involved in generating them or their surface word orders would be the same as their underlying word orders.

In fact, there exist a lot of examples in the texts written in the Early OE period where pronouns occupy S-initial positions of root sentences without VSEs, as illustrated as follows:

\[(ii) \ a. \ \text{He his ealdordom} \]
\[\text{he his powers} \]
\[\text{synnum aswefede,} \]
\[\text{with sins destroyed} \]
\[\text{...} \]
\[\text{(Ex 335b–6a)} \]
\[\text{b. \ \text{He ða swigode,} \}
\[\text{he then became silent} \]
\[\text{...} \]
\[\text{(Dan 546a)} \]
\[\text{c. \ Hine halig God} \]
\[\text{him holy God} \]
\[\text{for arstafum} \]
\[\text{us onsende} \]
\[\text{because of kindness} \]
\[\text{to us sent} \]
\[\text{to West-Denwen,} \]
\[\text{pæs ic wen hæbbe,} \]
\[\text{because I hope have} \]
\[\text{wid} \]
\[\text{Grendles gryne.} \]
\[\text{against Grendles grief.} \]
\[\text{(Beo 381b–4a)} \]
\[\text{d. \ Him ða Adam eft andswarode:} \]
\[\text{him then Adam again answered:} \]
\[\text{(GenA 882)} \]

These data confirm that in the Early OE period, S-initial positions in root sentences with VSEs are necessarily topic positions, which stressless pronouns cannot occupy, and that Early OE is SOVI.
b. þæt ic in wuldur and mægen wis sceawige
    that I in the glory and power way see (PPs 62.3.4.)
The syntactic fact exemplified above strongly suggests that the underly-
ing word order of Late OE is SOV, for as mentioned in section 2.1, the
basic word order in embedded clauses directly reflects the underlying
word order of a given language.

Typical examples of VSEs in root sentences are:

(11) a. He lyfað leodum;
    He lives with people; (PPs 71.15.1.)

b. He het him gamene geara forbærna
    He ordered them as pleasure long burn
    Romana burig, sio his rices wæs
    Roman's city which his power's was
ealles eðelstol.
    all's city (Met 9.9-11a)

c. He hæfde god geðanc
    He had good mind
    þa hwile þe he mid handum healdan mihte
    while he with hands hold can
    bord and bradswurd ... (Mald 13-5a)
    bord and broadsword ...

These data show that there existed a kind of movement rule which raises
a verb in clause-final position to second position in that clause.

Given the difference in the position of INFL between German and
Early OE, the question immediately arises whether Late OE similar to
German or Early OE in the underlying position of INFL. That is, is Late
OE underlyingly SIOV (S-I-VP) or SOVI (S-VP-I)?

Considering the characteristic of pronouns in the OE period men-
tioned in section 2.1, we make the following predictions about the posi-
tion of INFL in the Late OE period:

(12) a. Late OE is an S-I-VP (SIOV) language if pronouns can
    occur S-initially in root sentences exhibiting VSEs only
    when they function as subjects.

b. Late OE is an S-VP-I (SOVI) language if pronouns, wheth-
er subjects or objects, cannot occur S- initially in root sen-
tences exhibiting VSEs.

It should be noted here that in the examples of Late OE presented in
11, the subject pronouns do occur in S-initial positions in root sentences
with VSEs. Recall that in Early OE texts, none of the pronouns can be
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S-initial in root sentences with VSEs. In this respect, Late OE and Early OE are strikingly different. It is thus highly likely that pronouns in Late OE behave like those in German.

To see how pronouns behave in the Late OE period, consider:

(13) Judith Mald Met PPs

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In Judith, we cannot find S-initial pronouns followed by verbs at all, though we can find pronouns in root sentences. This is not the case for Metrical Psalms of the Paris Psalter, Battle of Maldon, and Metres of Boethius, however, in which there are much more examples of pronouns occurring in root sentences than in Judith. In these texts, we can find pronouns in root sentences, some of which, functioning as subjects, appear S-initially followed by verbs. In other words, in these texts, whenever pronouns appear S-initially in root sentences with VSEs, they function as subjects. None of object pronouns occur S-initially followed by verbs. It is thus possible to conclude that in the Late OE period, pronouns can occupy S-initial positions in root sentences with VSEs only when they function as subjects.

According to 12, this pattern of the distribution of pronouns in Late OE provides strong evidence for the S-I-VP underlying structure for Late OE.
We thus reach the following conclusion:

(14) Late OE is underlyingly SIOV.\textsuperscript{11}

This result is rather surprising, because it is implied that the position of INFL in Early OE and that in Late OE are different. The position of INFL changed in the OE period. Early OE is INFL-final, whereas Late OE, like German, is INFL-second. Thus Late OE contrasts with Early OE in the characterization of a S-initial position. It can be a non-topic position when there is a VSE in root sentences in the latter, whereas it cannot in the former. This kind of difference between Early OE and Late OE could not be found out and explained if the word order of OE were not analyzed in our way.

2.3. SUMMARY

What we have argued thus far are as follows:

(15) a. Early OE is underlyingly SOVI.
    b. Late OE is underlyingly SIOV.
    c. There was a change in position of INFL in the OE period.

3. IMPLICATIONS.

3.1. TOWARD A THEORY OF WORD ORDER CHANGE. What we have argued so far is that the underlying word order is changed from SOVI to SIOV in the OE period. Given that Modern English (ModE) is SIVO, the underlying word order is likely to be changed from SOVI through SIOV to SIVO in the history of English.

In the CP-IP system proposed by Chomsky 1986b, since the complementizer \textit{æt} precedes its complement IP in both Early OE and Late OE, as shown in 4 and 10, repeated here for convenience:

(4) a. \textit{æt} seo tid gewear\ø
Then the time became

\textsuperscript{11} Though Late OE is SIOV, we can explain the SOV order in embedded clauses as exemplified in the following examples, pointed out by an anonymous reviewer, in the same way that Travis explains the SOV order in embedded clauses in German:

(1) a. \ldots æth æh æh mannum æeowdon.
    though they men served
    \textit{(ÆLS II. 85)}
    b. to ðam lifigendan drihte æ he on life wurdode.
    to the living Lord whom he on life worshipped.
    \textit{(ÆLS II. 309)}

See footnote 6 for more details.
paet he friðgedal fremman sceolde.
that he death perform should (GenA 1141b–2)

b. paet hie leofum men
that they beloved men
geoce gefremede.
help do (GenA 1586b–7a)

(10) a. paet hi on þam easte ealle stodon
that they on the river bank all stood

b. paet ic in wuldur and mægen wis sceawige
that I in the glory and power way see

(Mald 37)

(PPs 62.3.4.)

the change in underlying word order occurred in the history of English
can be illustrated as follows:

(16) a. CP
    C'
    C
    IP
    I'
    VP
    I
    XP
    V

CP = head-initial
IP = head-final
VP = head-final

b. CP
    C'
    C
    IP
    I'
    I
    VP
    XP
    V

CP = head-initial
IP = head-initial
VP = head-final

16a, 16b, and 16c stand for the structures of Early OE, Late OE and ModE, respectively. In Early OE, CPs are different from IPs and VPs in the
value of the head-complement parameter, which specifies the orders of non-heads with respect to heads. Only CPs are thus head-initial. In Late OE, however, IPs as well as CPs are head-initial. In ModE, CPs, IPs and VPs are all head-initial.

§6 shows that the value of the parameter percolates down from top to bottom. We thus propose here that the underlying word order may be changed in accordance with a general principle presented in §7:

\[(17) \text{Principle of Parameter Percolation (PPP)}\]

The value of a parameter percolates down from CP to VP in the course of word order change.\(^{12}\)

In Early OE, only CPs were head-initial, which triggered a change of head-final IPs to head-initial IPs. This is why Late OE, unlike Early OE, had head-initial IPs. After IPs had become head-initial, VPs turned head-initial.\(^{13}\)

According to §7, Middle English (ME) must at least have head-initial CPs and IPs, for Late OE has head-initial CPs and IPs. Obviously, CPs are head-initial in the ME period, as shown in §8:

\[(18) \text{a. ... pet hi uppon hædene þeodan willan woldan} \]
\[\text{that he upon hood join wish would} \]
\[
\text{(The Peterborough Chronicle ci. 24-5)}
\]
\[\text{b. þu seist pat þu canst fele wike.} \]
\[\text{you say that you know many offices.} \]
\[
\text{(The owl and the nightingale 805)}
\]

We can also make clear the value for the parameter with regard to IPs in the same way that we did with regard to both Early OE and Late OE, because pronouns are mostly stressless in the ME period and, as the following examples indicate in which the adverbs are pre-verbal, ME has VSEs in root sentences:

\[(19) \text{a. Ða ferde se cyng to Hæstingan to þam} \]
\[\text{then went the king to Hastingen to the} \]

\(^{12}\) The PPP suggests that CP, IP and VP should be grouped together. This intuition is far from new. In the X-bar system proposed by Jackendoff 1977, for example, CP, IP and VP are regarded as projections of V.

\(^{13}\) Needless to say, the PPP could not fully describe a change of word order, because NP, PP, and AP are beyond its scope. Furthermore, the question would arise whether the PPP plays a role with regard to other parameters than the head-complement parameter. In these respects, further studies are needed. It can be said, however, that word order change concerning C, INFL, and V is regulated by the PPP.
Candelmæssen.
Candelmas
(The Peterborough Chronicle xciii. 8–9)
b. Per asyngnes he a servant
there assigns he a servant
(Sir Gawain and the Green Knight 1971a)

Given that subject pronouns behave like the adverbs in this respect, as in:
(20) a. Hy arerdon unrihte tollas, ...
they created wrong tributes ...
(The Peterborough Chronicle lxxxv. 29)
b. Ye knowe what this ensemble may resemble.
you know what this ensembler may resemble.
(The Canterbury Tales WB. 90)

it can be said that there exist S-initial pronouns functioning as subjects in root sentences with VSEs in the texts written in the ME period as well as in the Late OE period. This strongly suggests that ME is underlingly S-I-VP, for, as we have noted in footnote 6, S-initial objects in languages exhibiting VSEs in root sentences are always in topic position and cannot be stressless. Therefore the observations made about ME so far provide strong evidence that ME has head-initial CPs and IPs. The underlying word order of ME is thus compatible with 17.14

3.2. ON THE APPEARANCE OF EXPLETIVES. It is well known that expletives did not occur S-initially in the Early OE period, though this fact has not been explained yet. We can easily account for it, however, for we have reached the conclusion that in Early OE, the S-initial position is a topic position where stressless elements like an expletive cannot occur when an inflected verb is in the second position.

In the Late OE period, however, an expletive was introduced which could occur in S-initial position:
(21) Hit is betere pæt mon wrege one scyldigan.
It is better that ...
(Bo xxxviii)

14 Though many linguists, such as Lightfoot, Kemenade, and so on, consider ME to be an SVO language, we assume with Fries 1940 that it is an SOV language. Suzuki 1990 gives examples showing the lack of that-t effects in Late ME. As noted in section 1.1.2, this syntactic fact is observed in languages with basic SOV word order. It is thus not unnatural to conclude that ME is an SOV language. Our claim here is that ME is underlyingly SIOV. See Saito, Okazaki and Shimada 1990 for more details.
21 is recorded in the text written in the Late OE period. This is also compatible with our analysis, for we consider that S-initial subjects can be in non-topic position in Late OE. Therefore it is not surprising for us that expletives did not occur S-initially in the Early OE period, whereas they did in the Late OE period.

4. EXCEPTIONS AND THEIR EXPLANATIONS. We have concluded that Early OE is S-VP-I because S-initial pronouns followed by verbs are not found and that Late OE is S-I-VP because sentence initial pronouns followed by verbs are possible only when they function as subjects. As has been shown by the numbers in the brackets in the tables in sections 2.1 and 2.2, however, there are actually several examples written in the Early OE period in which pronouns occur S-initially followed by verbs and there are several examples written in the Late OE period in which object pronouns occur S-initially followed by verbs. A representative sample of relevant data is provided in 22 and 23, which are from the texts written in the Early OE and Late OE periods, respectively:

(22) a. Ic wille mid flode folc acwellan.  
    I will with flood people kill
b. Ic wille fandigan nu,  
    I will test now
    mago ebre, hwæt pa men don,  
    man Hebrews what then men do

c. (Cain and Abel.) Us cyðað bec  
    us say books
    us secgæð bec  
    us say books
d. (sigor lean sohton.) Him ferede mid  
    him carried with
    solomia synces hyrde  
    Solomia’s treasure’s keeper

e. (frenda feasceaf.) Him ferede mid  
    him carried with
    solomia synces hyrde  
    Solomia’s treasure’s keeper

(23) a. Me sendon to þe  
    me sent to you
    sæman snelle  
    seemen bold
b. Hine weorðiað  
    him praises
    worulde kiningas  
    world kings
    þa on eorðwege  
    who on the earth
    ealle syndon;  
    all are
c. Him wisode wolcen wiytel
   him led cloud very large
   daga hwilce, ... (PPs 77.16.1–2a)

d. Him gangað ongean gleawe cæfts
   him go towards wise crafts (PPs 84.9.1.)

There are reasons to believe that they are not counterexamples, but rather mere exceptions. First of all, all of them except 22a and 22b share the same characteristic; the inflected verbs are involved in alliteration. Given that it is extremely rare that an inflected verb is involved in alliteration, they can be characterized as marked sentences. The marked pattern of alliteration and the strange distribution of pronouns may be related to each other. Specifically, in the cases of 22c and 22d, because what is involved in alliteration must be as leftward as possible in a verse, the inflected verbs cannot follow bec, showing OSV order, which, as noted in footnote 10, raises no problem at all even if pronouns occur S-initially.

Second, we could explain 22e, 23b and 23c appealing to a stylistic movement. These examples show OVS order and the subjects are rather heavy. They might exhibit either SOV or SVO order, before the stylistic rule applied to them. The stylistic rule would change SOV and SVO into OVS and VOS, respectively. In the latter case, some subsequent stylistic movement might change VOS into OVS. The change from SOV to SVO is due to head-movement of a verb, which is a syntactic rule. But what changes SVO to VOS and what changes VOS to OVS may be stylistic rules which can produce peripheral constructions. Therefore it can be said that the occurrences of the pronouns in S-initial position in these examples do not reflect the characteristics of a core grammar.

Third, splitting of P and its complement NP, which is a characteristic of OE, might be related to the strange behaviour of pronouns. This is the case for 22e and 23d. The question as to why P and its complement NP can split is very difficult to solve. No sufficient account of this splitting effect has been given yet. Therefore we assume that the strange behaviour of the pronouns are one of the issues concerning splitting effects, which we do not investigate here.

In 22a and 22b, the inflected verbs are not involved in alliteration. The context in which pronouns behave in an unusual way without inflected verbs involved in alliteration is limited to the case where willan appears in second position following a pronoun. The strange behaviour of pro-
nouns would be traced to a property willan has.\textsuperscript{15}

As has been discussed so far, since the examples in 22 and 23 are themselves marked in some respects, we do not have to take them to be evidence against the conclusions reached in sections 2.1 and 2.2.

5. **Conclusion.** In this paper, we have focused on where the underlying position of INFL was in the OE period, and found out a striking difference in distribution of pronouns between Early OE and Late OE, which strongly suggests the SOVI and SIOV underlying structures for Early OE and Late OE, respectively. In Early OE, pronouns cannot occur S-initially followed by verbs, regardless of their grammatical functions. In Late OE, however, pronouns can occur S-initially if they function as subjects. The distributional patterns of pronouns in Early OE

\textsuperscript{15} We do not include all the S-initial pronouns which are followed by beon ‘be’, and a certain kind of ergative verbs like weorðan ‘become’, or those preceded by ac ‘but’ and and ‘and’. S-initial pronouns can be allowed if they are followed by these verbs and preceded by these coordinators:

(i) a. He wæs leof gode and ...
   He was loved by god (GenA 1146a)

b. Me wearð Grendles þing
   me became Grendle’s affair
   on minre þæltyrf undyrne cuð;
   on my country well-known (Beo 409b–10)

(ii) a. ac he cunnode hu hie cweðan woldon
    but he knew who they say would
    (Dan 530)

b. ac he hafað onfundan, þæt he þa fæhðe ne þearf
   but he has perceived that he then feud not needs (Beo 595)

Since Early OE is an S-VP-I language, no occurrence of pronouns in S-initial positions of root sentences with VSEs is allowed. There are such examples as in (i) and (ii) in the texts written in the Early OE period, however. We do not know the reason. As for the case of (ii), the subject pronoun may be counted as a clitic, as Kemenade (1987: 127–29) suggests. What is important here is that the pattern of deviation in (i) and (ii) are systematic and can be traced to a lexical property, for verbs and coordinators allowing S-initial pronouns are limited. Some additional factors may be involved. The examples like (i) and (ii) do not raise any problem. Rather, they suggest that we are in a right track. We are grateful to an anonymous reviewer for pointing out (iib).

Note that beon causes a further exceptional effect. Though the order is generally SOV in embedded clauses in the OE period, as indicated in 4 and 10, a word order of SVO can be observed in embedded clauses if beon occurs as a finite verb there:

(iii) þæt hit sie feaxede steorra
    that it is long-haired star (Weerman 1989)

(i) and (iii) may be the illustrations of marked characteristics of beon.
and Late OE observed here have been not pointed out yet in both philo-
logical and generative studies.

Our conclusion implies that there was a change in position of INFL in
the OE period. Based on this observation, we have proposed the PPP,
which regulates word order change. Weerman points out that there is no
Germanic language whose underlying word order changed from VO to
OV. This fact may suggest that underlying word order change is con-
trolled by something.

REFERENCES

BESSINGER, J. B. and PHILIP H. SMITH. 1987. A Concordance to the Anglo-Saxon
New York: Praeger.
Press.
versity of Wisconsin Press.
FRIES, CHARLES C. 1940. On the development of the structural use of word-order
in Modern English. Lg. 16.199–208.
KEMENADE, ANS VAN. 1987. Syntactic case and morphological case in the history
Heath
KRAPP, GEORGE P., and ELLIOT V. K. DOBBIE. 1931–42. The Anglo-Saxon poetic
LIGHTFOOT, DAVID. 1979. Principles of diachronic syntax. Cambridge: Cam-
bridge University Press.
USC dissertation.
Oxford University Press.

SAITO, SHINJI; MASAO OKAZAKI; and MASAHARU SHIMADA. 1990. Toward a theory of word order change: Principle of parameter percolation. Paper read at the Seventh annual meeting of Modern English Association.


