# Verb Movement in Old and Middle English: Dialect Variation and Language Contact\*

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#### 1 Introduction.

Our goal in this paper is to show that the northern and southern dialects<sup>1</sup> of Middle English differ significantly in their verb-movement syntax. In particular, we will give evidence that these dialects

<sup>1</sup>The dialect divisions of Middle English are complex and controversial. Divisions based on phonology recognize three to five major dialect areas. In this paper, however, we will be concerned only to show that there was at least one northern dialect and one southern dialect with the characteristics that we describe. Roughly, the two syntactic dialects at issue were found in the North and in the (North)east Midlands, on the one hand, and the South and (South)west Midlands on the other. Within these areas further distinctions can be made that are beyond the scope of this paper.

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exemplify a recently discovered typological distinction within the Germanic language family in the landing sites of verb movement. Several studies have indicated that the verb-second (V2) constraint characteristic of the Germanic languages involves movement to either of two different positions, depending on the language investigated. In the better known languages (German, Dutch, and Mainland Scandinavian), verb-second word order results from movement of the tensed verb to the COMP (C°) position and concomitant movement of some maximal projection to the specifier of CP. In other Germanic languages (Yiddish and Icelandic), however, V2 word order can reflect movement of the tensed verb to a lower position. In studies using the phrase structure of Chomsky 1986a, that position is INFL (I°) (Diesing 1990, Santorini 1992, Pintzuk 1991). Under current assumptions, where the INFL projection has been decomposed into a varying number of functional projections with simpler feature content, the verb in this second type of language seems to move to the highest projection below C°. As there is no consensus on the label or precise character of this projection, we will distinguish the two types of languages terminologically as "CP-V2" versus "IP-V2" languages, with the understanding that "IP" here stands for the highest projection below C°, whatever that may be. In section 7, we will give reason to believe that a split-INFL analysis is, in fact, useful in understanding the character of Middle English V2; but for most of this paper we will, for the sake of simplicity, assume a unitary I°.

The difference in the position to which the verb moves in different languages leads to subtle but clearly observable differences in the shape and distribution of verb-second clauses. Most strikingly, while all V2 languages exhibit verb-second word order in main clauses, the two subtypes differ in the availability of this word order in subordinate clauses. The CP-V2 languages allow verb-second order only in those embedded clauses that in some way have the structure of matrix clauses, either because the complementizer position is empty or because there is an additional complementizer position embedded below the one that introduces the subordinate clause (the so-called "CP-recursion" structure discussed in de Haan and Weerman 1986 and Iatridou and Kroch 1992).

<sup>&</sup>lt;sup>2</sup>Vikner 1990 calls the IP-V2 languages "generalized verb-second" languages because the two he considers, Yiddish and Icelandic, are said to exhibit V2 word order in all types of main and subordinate clauses rather than in the more limited set of environments where it is found in German, Dutch and Mainland Scandinavian. This terminology has the advantage of theoretical neutrality; but, as we shall see, it is inaccurate. IP-V2 languages do not allow V2 word order as freely in subordinate clauses as in main clauses (see also Kemenade (this volume)).

As the cited authors show, instances of these exceptional subordinate clauses are largely confined to the complements of bridge verbs. The IP-V2 languages, on the other hand, show V2 word order in a broad range of subordinate clauses (Diesing 1990, Santorini 1989, 1992, Rögnvaldsson and Thráinsson 1990). Pintzuk 1991, 1993 has recently shown that the verb in Old English V2 clauses surfaces in the I<sup>o</sup> position; and despite the empirical difficulties pointed out by Kemenade (this volume), we will support her conclusion. We will further see that the southern dialect of Middle English preserves the V2 syntax of Old English, despite having become, unlike Old English, overwhelmingly INFL-medial and VO in basic word order (see also Kemenade 1987). In striking contrast to the southern dialect, however, the northern dialect of Middle English appears to have developed the verb-movement syntax of a standard CP-V2 language and hence to be similar in its syntax to the modern Mainland Scandinavian languages. In the following pages, after a brief discussion of the historical context of dialect differentiation between North and South in Old and Middle English, we will lay out the complex V2 syntax of Old English. With this background, we will proceed to describe the syntax of V2 in the southern and northern dialects of Middle English, respectively, and will show that V2 clauses in the two dialects differ in the landing site of the verb. Given the strong and well-known linguistic influence of Scandinavian on northern Middle English, we are immediately led to ask whether the CP-V2 character of northern Middle English could reflect contact with Scandinavian. We give evidence in support of this possibility and suggest what the nature of the contact effect might have been.

### 2 The sociolinguistic background.

Although we are here not primarily concerned with the historical and sociolinguistic dynamic that established the Middle English dialects, the sociolinguistic history of population contact and diffusion which underlie them is a matter of considerable interest, and it sheds light on why the dialect difference we have uncovered should exist. Specifically, we will see that the northern dialect of English most likely became a CP-V2 language under the extensive contact it had with medieval Scandinavian, contact that resulted from the Danish and Norwegian population influx into the north of England during the late Old English period. In the course of its history, English has been more heavily influenced by Scandinavian than by any other language. The only comparable

influence was the effect of French and Latin on the literary and learned vocabulary, but these languages influenced English grammar hardly at all. The strength of Scandinavian influence resulted from the large numbers of Norwegians and Danes who settled in England in the three centuries before the Norman Conquest (Stenton 1967, Geipel 1971). The Viking seafarers that harassed the British Isles from the 9th to the 11th centuries came at first to plunder but eventually stayed permanently. For long periods in the 9th and 10th centuries, the Danes or Norwegians ruled extensive kingdoms in England, and place name evidence indicates that the population of several shires was predominantly Scandinavian (Darby 1936, Ekwall 1936, Geipel 1971). Since the first settlers were soldiers of the Danish armies that plundered the English coastline, there must have been a great deal of intermarriage and intimate language mixture; but there were also substantial numbers of immigrants who came later, after areas of foreign control were established. Among these were substantial numbers of women as well as men (Stenton 1967:513). In the northwest of England, the major focus of Norwegian settlement, the settler-invaders came from already established Norse settlements in Ireland and may often have come as families. Moreover, in that region the density of Anglo-Saxon settlement was low and the newcomers necessarily formed a majority of the population in many places (Ekwall 1936). The linguistic effect of this combination of population movement and population mixture was extensive, comparable in some ways to the pidginization/creolization phenomena of more recent centuries, though not as extreme (see, however, Thomason and Kaufman 1988 for a more conservative assessment).

It is well known that many originally Scandinavian vocabulary items were borrowed into northern English; for example, Scandinavian 'egg' for Old English (and general West Germanic) 'ey', Scandinavian 'sister' for Old English 'swuster', and so forth. Most significantly for our purposes, several of the borrowings from Scandinavian were of closed class items which functioned mainly as morphosyntactic signals of grammatical relations. For example, the third person plural pronoun 'they' was borrowed into northern English from Scandinavian and spread over time into other dialects (Morse-Gagné 1992, 1993 and the references cited there). Similarly, the anaphoric noun 'same' is Scandinavian in origin. Other grammatical forms remained restricted to the North and never became general. The Middle Scots demonstrative system, for instance, contains an important Scandinavian element (Morse-Gagné 1993). Also, northern texts often show 'till' for 'to' as a

preposition and 'at' as a complementizer introducing both tensed clauses and infinitives (McIntosh et al. 1986). These features are clearly borrowed from Scandinavian, and so may be the use of an empty complementizer to introduce relative clauses and object complement clauses (Jespersen 1938). Another important effect of Scandinavian contact on northern English, which will play an important role in our discussion (see section 7), was to reduce the number of distinct person/number agreement endings on the finite verb.

Regarding the grammar of V2, the situation is quite complex. Unfortunately, we have no direct evidence regarding the syntax of the Scandinavian languages of the contact period. However, the extensive grammatical influence of Scandinavian on northern English indicates that the V2 grammar of the dialect could also have been affected by contact; and there is certainly no other apparent reason for the grammar of V2 in the North to differ from that in the South. The main difficulty with this hypothesis is that it is likely that Old Norse was an IP-V2 language, since modern Icelandic is of that type and is very close in its syntax to that of Old Norse in the period for which we have records (from the 12th century onward). If so, the influence of Scandinavian in producing the CP-V2 system of the North could only have been indirect. We will give evidence of just such an indirect effect; but to do so we must first develop an analysis of the V2 phenomenon in Old English, out of which the northern system evolved. We now turn to this matter, which is a difficult one and will require extensive discussion.

#### 3 The V2 syntax of Old English.

Old English is a West Germanic language with a syntax similar to that of modern German and Dutch. In several ways, however, its word order exhibits more complex variation than do the modern West Germanic languages. For instance, it freely allows postposition of complements and adjuncts, both nominal and prepositional, to the right of the uninflected, VP-final verb.<sup>3</sup> This postposition leads to superficially free word order in texts, which misled some traditional scholars (though not all) into thinking that Old English was a "free word order" language. Recent studies

<sup>&</sup>lt;sup>3</sup>Our paper does not take account of recent proposals by Kayne 1994, Zwart 1993, and Roberts (this volume) that treat OV languages as underlyingly VO. If that proposal proves viable, the analyses presented here should be straightforwardly translatable into the new framework.

have demonstrated, however, that the apparent freedom of order of the verb in Old English with respect to its complements or adjuncts results almost entirely from the greater freedom of rightward extraposition in that language relative to its modern West Germanic cousins (Kemenade 1987, Pintzuk and Kroch 1989). In addition, and of more immediate relevance to the present discussion, there is work by Kemenade, Pintzuk, and others on the V2 pattern in Old English; and they have shown that it too is highly patterned and rule governed (Kemenade 1987, Pintzuk 1991, 1993). Here too, the superficial behavior of sentences is highly variable, leading earlier scholars to say that V2 was only a tendency, not a rule, in Old English; but the cited studies have substantially reduced the amount of variability that must be postulated.

Pintzuk (1991) and Haeberli and Haegeman (1992) do demonstrate, however, that Old English texts manifest competition between two underlying phrase structures for clauses, one INFL-final and the other INFL-medial.<sup>4</sup> Both main and subordinate clauses exhibit this variation, though main clauses are more often INFL-medial and subordinate clauses more often INFL-final. Examples of INFL-final and INFL-medial sentences from both main and subordinate clauses are given in (1) and (2) respectively. See Pintzuk's discussions (1991, 1993) for detailed analysis of these cases:

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(1) a. ... ðeah hit ær upahæfen wære (CP 34.6) ... although it before up-raised was
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- b. Se manfulla gast þa martine gehyrsumode. (AELS 31.1050) the evil spirit then Martin obeyed
- (2) a.... bæt he ahof upp ba earcan (GC(C) 42.6) ... that he lifted up the chest
  - b. þa sundor-halgan eodun þa ut soþlice. (WSCp, Matt. 12.14) the Pharisees went then out certainly

The relative frequency of these two phrase structures changes over time, with the number of INFL-medial sentences increasing steadily in both main and subordinate clauses. By the end of the Old English period, the language has become entirely INFL-medial, though the character of the

<sup>&</sup>lt;sup>4</sup>For further discussion of the notion of competition between grammars see Kroch 1989b, 1994, Pintzuk 1991, Santorini 1992, Taylor 1990, 1994.

reanalysis which leads to this outcome is obscured by the collapse of Old English as a written language in the early 12th century and the paucity of Middle English documents in the earliest period (see Lightfoot 1991, Pintzuk 1991, 1993 for further discussion). The existence of INFL-final main clauses in Old English indicates that, at some point before the period documented by texts, its grammar must have been consistently SOV and INFL-final, a configuration presumably inherited from proto-Germanic and ultimately from proto-Indo-European (Kiparsky 1994). Verb-second word order, as far as one can tell, arose and spread along with INFL-medial phrase structure; and by the time of the earliest texts, it was dominant in main clauses. In subordinate clauses, the INFLmedial structure also became increasingly common during the course of the historic Old English period. Significantly, only underlyingly INFL-medial clauses seem to be V2, showing that, unlike in German or Dutch, V2 sentences in Old English do not derive from an underlying INFL-final phrase structure. Instead, INFL-final phrase structure is a feature of the declining proto-Germanic grammar, whether it appears in main or subordinate clauses; and it is driven out of use by the competing INFL-medial cum V2 option. Pintzuk argues that the association in Old English between INFL-medial underlying structure and V2, and the corresponding absence of the German/Dutch derivational relationship between INFL-final and V2, can be explained only if we suppose that Old English is an IP-V2 language like Yiddish or Icelandic and not a CP-V2 language like German or Dutch. We agree that only this perspective permits an adequate explanation of the occurrence of INFL-final main clauses in a V2 language while also accounting in detail for the word order patterning in the V2 sentences of the language.

The range of superficially distinct word orders in Old English V2 sentences is broad and has been difficult to account for in a principled way. Pintzuk's IP-V2 analysis, however, accounts quite simply for the different word orders, without the postulation of numerous special rules or principles. We list here the types of V2 sentences found in Old English and explain how the analysis accounts for them. Subsequently, we will propose a modification of the analysis to relate it more closely from a theoretical perspective to standard treatments of Germanic syntax and to improve somewhat its descriptive adequacy.

3.1 Subject-initial sentences. The single most common sentence type in Old English is the subject-initial sentence, in which the first constituent is the subject and the second is the tensed

verb. The subject is a nominative case noun phrase or pronoun which moves to the specifier of a functional projection in the C/I system, while the tensed verb also moves to the head of a functional projection. Subject-initial matrix clauses are not SVO sentences but just V2 sentences in which the topic happens to be the subject.<sup>5</sup> In the case of embedded clauses, the correct analysis of subject-initial sentences is trickier and will be discussed further in section 4.

3.2 Sentences with non-subject topics. The second sentence type consists of those sentences in which the first constituent is a topicalized non-subject, either a non-pronominal NP complement, a prepositional argument or adjunct, or an adverb. In this type, word order depends on whether the subject is a pronoun or a non-pronominal NP. In the latter case, the tensed verb appears immediately after the first constituent – that is, in second position; hence, it is inverted with respect to the subject. Some examples, taken from Pintzuk (1991) and Kemenade (1987), are listed in (3):

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(3) a. & of heom twam is eall manneynn cumen (WHom 6.52) and of them two is all mankind come
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- b. bæt hus hæfdon Romane to ðæm anum tacne geworht (Or 59.3) that building had R with the one feature constructed
- c. þær wearþ se cyning Bagsecg ofslægen (Anglo-Saxon Chronicles, Parker, 871) there was the king B slain

When the subject is a pronoun, however, it ordinarily appears before rather than after the tensed verb, yielding superficial verb-third word order. This special behavior of pronoun subjects is due to their clitic-like character (Kemenade 1987, Pintzuk 1991) and is not evidence of variability or irregularity in the adherence of Old English to the verb-second constraint. Here are some examples of the use of pronoun subjects yielding verb-third word order, taken from Pintzuk (1991):

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(4) a. Ælc yfel he mæg don (WHom, 4.62)
each evil he can do
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b. scortlice ic hæbbe nu gesæd ymb þa þrie dælas... (Or 9.18) briefly I have now spoken about the three parts

<sup>&</sup>lt;sup>5</sup>See, however, Heycock and Kroch 1994 for a more nuanced analysis of V2 sentences with subjects in topic position.

c. æfter his gebede he ahof þæt cild up... (AEChom. 2.28) after his prayer he lifted the child up

Under Pintzuk's analysis of Old English as an IP-V2 language, the word order in (4) reflects movement of the verb to I° and movement of a topic to Spec, IP. Clitic pronouns in Old English, like pronouns in the other verb-final West Germanic languages, move to the boundary between CP and IP and so should appear sentence-initially. However, because sentence-initial position is not available for clitics (perhaps for reasons of prosodic phonology), Pintzuk proposes a special rule to postpose clitic pronouns to the immediate right of the first constituent. Hence, when the verb moves to I°, the pronominal subject appears immediately before it, between the topic and the verb. Full NP subjects, as in (3), remain in their underlying position in Spec, VP and are assigned nominative case under government, as has been proposed for the modern IP-V2 languages (see Hulk and van Kemenade 1988, Santorini 1992). With pronominal objects of verbs and prepositions, as in the examples from Pintzuk in (5) below, the same sort of verb-third effect appears, and for the same reason, since they too generally behave as clitics.

- (5) a. þin agen geleafa þe hæfþ gehæledne (BlHom 15) thine own faith thee has healed
  - b. & seofon ærendracan he him hæfde to asend (ASC, Parker, 905) and seven messengers he him had to sent

Example (5b) shows that the verb appears in fourth position when a sentence contains both a subject and an object clitic. In addition to pronouns, certain monosyllabic adverbs (for example, 'so') may also move to this position, suggesting that the clitic behavior of Old English pronouns is a grammaticized form of the leftward scrambling of constituents commonly found in Germanic.

**3.3** Sentences with verb movement to C°. The third V2 sentence type of Old English comprises four exceptional cases in which subject pronouns regularly invert with the tensed verb. These are: non-subject wh- questions, sentences introduced by 'pa' and 'ponne' (when they are equivalent to modern English 'then'), sentences with preposed negated or subjunctive verbs, and

<sup>&</sup>lt;sup>6</sup>Other narrative sequencing adverbs (for example, 'nu' "now") sometimes behave like 'þa', and sometimes like ordinary adverbs.

certain verb-initial sentence types (principally so-called "Narrative Inversions"). Examples of these four cases are given in (6):

- (6) a. hwi sceole we obres mannes niman? (AELS 24.188) why should we another man's take
  - b. þa ge-mette he sceaðan (AELS 31.151) then met he robbers
  - c. ne mihton hi nænigne fultum æt him begitan (Bede 48.9–10) not could they not-any help from him get
  - d. hæfdon hi hiora onfangen ær Hæsten to Beamfleote come (ASC, Parker, 894) had they them received before H to B came

Under Pintzuk's analysis, the exceptionality in (6) arises because in these cases the verb moves further leftward than it does in ordinary declaratives, thereby passing the position of the clitic pronoun subject. Specifically, the verb moves to C°, perhaps because it must pick up certain morphosyntactic features there. Crucially, the structural position of the verb in wh- questions is not the same as in topicalized sentences, in contrast to the situation in CP-V2 languages, where the verb is always found in the higher functional projection. The split between questions and topicalizations helps to explain why, when English lost the V2 constraint, word order in questions was unaffected. Like Old English, the other IP-V2 languages also exhibit movement to C° in questions and certain other sentence types;<sup>7</sup> but these languages do not show the verb-third effect with pronominal clitics, because they do not have clitic pronouns that move to the CP/IP boundary.

3.4 Sentences with true verb-third order. While most adverbs behave as described above, temporal adverbs functioning as "scene setters" may fail to trigger subject-verb inversion of either pronoun or full NP subjects. These are cases of adjunction to CP to the left of the specifier position and are true exceptions to the verb-second constraint as it is known from the modern Germanic languages. Here are some examples from the Anglo-Saxon Chronicles:

<sup>&</sup>lt;sup>7</sup>This statement is not entirely uncontroversial. See Diesing 1990.

<sup>&</sup>lt;sup>8</sup>Examples similar to those found in Old English are apparently found in all older West Germanic dialects. Medieval German (Ebert 1986, Behaghel 1932: p. 15) appears to have been intermediate between Old English and modern German in its tolerance for this kind of adjunction. Further work on the V2 syntax of the medieval Germanic languages is needed to determine the proper analysis of these cases.

- (7) a. Da by ylcan gere onforan winter ba Deniscan be on Meresige sæton tugon hira Then the same year before winter the Danes that on Merseyside sat pulled their scipu up on Temese... (ASC, Parker, 895) ships up on Thames
  - b. On þisum geare Willelm cyng geaf Raulfe eorle Willelmes dohtor Osbearnes sunu In this year William king gave Ralph earl William's daughter Osborn's son (ASC, Laud 1075)

'In this year King William gave William FitzOsborn's daughter in marriage to Earl Ralph.'

c. Her Oswald se eadiga arceb forlet þis lif. (ASC, Laud, 992) in-this-year Oswald the blessed archbishop forsook this life

We should note that even in modern German, extremely strict in its expression of the V2 constraint, there are sentences with verb-third word order. These are of two types, 'if-then' sentences and left-dislocations, as illustrated in (8):

- (8) a. Wenn du kommst, dann amüsieren wir uns.
  if vou come then amuse we ourselves
  - b. Diesen Mann, den kenne ich nicht. this man him know I not

Significantly, however, verb-third word order in German is limited to cases where the adjoined sentence-initial constituent is a constituent coindexed with the sentence topic. (We assume that such a coindexation relation obtains between the 'if' clause and 'then' in conditionals.) Examples like (8) with correlative conjunctions also occur in Old English (for example, the 'pa...pa' construction); but the range of constituents that can adjoin to CP goes beyond these cases to sentences without correlative syntax. There are even rare cases where adverbs other than scene-setting temporals adjoin to CP to generate verb-third word orders. The examples given in (9) are cases from the last Old English portion of the Peterborough Chronicle:<sup>9</sup>

<sup>&</sup>lt;sup>9</sup>The differences between modern German and the older Germanic languages may be exaggerated by differences in the conventions of the written language at different times. Jack Hoeksema has pointed out to us that the modern German and Dutch counterparts of (9b) are perfectly acceptable with a pause after the initial adverb:

<sup>(</sup>i) a. Nichtsdestotrotz, wir müssen weiter.

- (9) a. Eac þis land wæs swiðe afylled mid munecan. (ASC, Laud 1087) also this land was very filled-up with monks.
  - b. þeahhweðer his hiredmen ferdon ut mid feawe mannan of þam castele. nevertheless his household men went out with few men from the castle (ASC, Laud 1088)
  - c. & syððan litlan & litlan his leoht wanode (ASC, Laud 1107) and afterwards little by little his light waned

The possibility of verb-third word order in Old English gives additional evidence for Pintzuk's IP-V2 analysis. Though we do not know exactly how to formalize the constraint, the CP-V2 phenomenon in languages like German involves a prohibition against adjunction to CP; for if it did not, there would be no constraint against adverb-initial verb-third sentences. In an IP-V2 language, therefore, we might expect the prohibition against adjunction to apply at the IP level, leaving open the possibility of adjunction to CP. Determining the precise conditions under which such adjunction can occur requires further investigation and is beyond the scope of this paper, but we will see it again in our Middle English data.

## 4 Revising Pintzuk's analysis.

While Pintzuk's analysis of Old English V2 yields an economical description of many relevant facts of the language, it faces two significant problems. First, it is not clear how to make the analysis consistent with the fact that, CP-recursion environments apart, Old English texts do not freely exhibit subordinate clauses with non-subject topics and V2 word order. Kemenade (this volume) states that V2 order with non-subjects in first position occurs only in limited types of subordinate clause in the texts, and Pintzuk's observations (personal communication) confirm this finding. Pintzuk's analysis, however, does not predict this limitation. Second, the special clitic movement rule needed by Pintzuk to account for the placement of pronouns between topic and verb in V2 clauses has no counterpart elsewhere among the Germanic languages and does not

Without the comma as a indicator of the pause, verb-second order is obligatory in the written language. In medieval texts punctuation was much less regular than now, so the absence of commas in (9) does not mean that there were not obligatory pauses after the sentence-initial adverbs.

b. Desalniettemin, we moeten verder.

nevertheless we must further (go).

have clear theoretical justification. In this section, therefore, we will propose a modification of Pintzuk's approach which preserves its essential claim – that Old English is an IP-V2 language – while mitigating these two difficulties. Suppose that, while the tensed verb in an Old English V2 sentence moves to I°, the topic moves not to Spec,IP but to Spec,CP. In that case, the clitic pronoun can move straightforwardly to the CP/IP boundary and the correct word order will result, without Pintzuk's special clitic inversion rule. The result of changing the landing site of the topic is that V2 in Old English seems to become a hybrid between the CP-V2 and the IP-V2 types. The tensed verb moves as in an IP-V2 language, while the topic moves as in a CP-V2 language. We will see below, however, that the other IP-V2 languages are more like Old English they first appear to be and that the analysis of the IP-V2 phenomenon itself must be changed. Once this change is made, Old English again falls together with the other IP-V2 languages.

Clearly, our proposal permits a standard treatment of Old English pronouns as Germanictype clitics, which Pintzuk's account does not; 10 but to make the proposal viable, we must explain why both C° and Spec, IP can, and indeed must, remain empty in Old English main clauses. If either contained phonetically overt material, Old English would not exhibit V2 word order in sentences with non-subject topics. We begin with the question of C°. We have already seen (section 3.3) that Old English reserves the C<sup>o</sup> position for verbs with special morphosyntactic features, suggesting that ordinary indicative verbs do not belong in that position, at least on the surface. In line with recent proposals regarding economy (Chomsky 1993, 1995), we can say that the ordinary indicative tensed verb in Old English carries only a weak feature driving its movement to Co and so moves there only at LF. In questions and the other environments discussed above, on the other hand, the feature driving movement to C<sup>o</sup> will be strong, making movement visible on the surface. In either case, movement to C° will occur by LF; and, therefore, the topic will have to be in Spec,CP in order to be properly licensed. Cross-linguistically, topicalized constituents are always the leftmost elements of their clauses; and it seems reasonable to assume that they hold this position because they are the surface "subjects" of the clause's topmost predication level (Heycock 1994). Given the phrase structure we are using, this requirement implies that topics in matrix clauses must oc-

<sup>&</sup>lt;sup>10</sup>The account in Kemenade 1987, which takes Old English to be a CP-V2 language, also fails to unify Old English clitics with the general Germanic pattern.

cupy Spec,CP, making our requirement on topics analogous to the wh-criterion of Rizzi 1990. In subordinate clauses with topicalization, this leftmost position seems to vary between Spec,IP and Spec,CP depending on the language, dialect and sentence type involved (see immediately below, also section 6).

We move on now to explaining why Spec, IP is empty, a more difficult question. The simplest treatment would be to say that the features driving movement of the subject to Spec, IP, which are strong in modern English, are weak in Old English. By economy then, this feature assignment would force movement of the subject to occur only at LF, leaving Spec, IP empty on the surface. However, while this solution is adequate for simple sentences like those in (3) above, it fails when more cases are considered. To start with, it predicts that in INFL-medial subordinate clauses the verb should come first, since Spec, IP will be empty; but the fact is, of course, that Old English subordinate clauses are predominantly subject-initial, not verb-first. There is no reason to question the standard line that these subjects are in Spec, IP. A second and extremely important consideration is that, as described by Kemenade (this volume), Old English subordinate clauses do sometimes exhibit V2 word order with a topicalized non-subject outside CP-recursion environments. Such subordinate V2 order occurs in clauses where the nominative subject is absent or is licensed to appear in a position other than Spec, IP, as in passive sentences or in sentences with experiencer dative "subjects." In such cases there is often no nominative NP, and agreement on the verb is the default third person singular. Otherwise, the nominative NP which agrees with the verb remains inside VP, while some other constituent, often but not always an experiencer dative, appears in Spec, IP. These possibilities are illustrated in the following examples from Kemenade (this volume):

<sup>(10)</sup> a. þæt eallum folce sy gedemed beforan ðe (Paris Ps. 9.18) that all people(dat. sg.) be(sg.) judged before thee

b. bonne ælce dæge beoð manega acennede þurh hys mihte on woruld when each day are(pl.) many(nom. pl.) given birth through his power on world (AEHP.VI.120)

Significantly, it turns out that in Icelandic and Yiddish, both IP-V2 languages, <sup>11</sup> examples of subordinate clause topicalization outside CP-recursion contexts are similarly limited to (or are more acceptable in) contexts where the subject is missing or appears in a VP-internal or a postposed position (Magnússon 1990, Sigurðsson 1990, Thráinsson 1994, Beatrice Santorini (personal communication)). The facts thus suggest very strongly that in the IP-V2 type of language, Spec,IP ordinarily hosts a subject and can only be a topic position in sentences where the subject is either absent or licensed to surface elsewhere. This marked use of Spec,IP in subordinate clauses must be made to harmonize with the emptiness of the position in main clauses.

It is difficult under current assumptions to account for the occurrence of topics in Spec, IP (or Spec, AGR-S) because that is the locus where Spec-head agreement between the finite verb and the subject is checked. Even if the subject in a certain sentence type does not appear there on the surface, checking theory of a Minimalist sort requires an expletive in Spec, IP, which forms a chain with the subject and is replaced by it at LF. The expletive may be phonetically null, but even so it will prevent a fronted topic from landing in Spec, IP. Thus, the presence of the empty expletive forces us to say that the topic lands in a higher specifier than Spec, IP, somewhere between Io (or AGR-So) and Co, as in Cardinaletti and Roberts 1991. If we follow this line, however, we will have no simple explanation for the complementarity that Kemenade has found in subordinate clauses between the appearance of an overt subject in Spec, IP and the possibility of a fronted topic. To avoid this consequence, we propose that the checking mechanism for subject-verb agreement in sentences with empty expletives be changed so as to free up Spec.IP as a landing site for topics. What we have in mind is similar to proposals that have been made many times to the effect that it is the agreement morpheme on the tensed verb rather than an expletive in Spec, IP that serves as the binder of a postposed or VP-internal subject (cf. den Besten 1985). Such a subject forms a chain not with an empty expletive but directly with the agreement morpheme on the finite verb, with which it is coindexed. The index on the agreement morpheme can be taken to reflect incorporation of the empty expletive into the feature complex of I°. Such incorporation satisfies (that is, checks off) the

<sup>&</sup>lt;sup>11</sup>Though we do not have the space to enter into the matter here, our analysis of the IP-V2 phenomenon has as one of its consequences that main clauses in Icelandic and Yiddish are most likely CP-V2 structures, with IP-V2 limited to non-CP-recursion subordinate clauses.

agreement features in I° and also the nominative case feature. The chain between agreement and the subject thereby case-licenses the subject, rendering expletive replacement unnecessary. If we assume that incorporation frees up Spec,IP or that it occurs without movement through Spec,IP, topics will be able to move to that position, as desired. The proposed treatment applies in the obvious way to impersonal sentences with empty expletives, where no nominative case noun phrase occurs. In these sentences, there is, of course, no chain; but the empty expletive will check off agreement and nominative case by incorporation. The existence of such sentences (illustrated by the Old English and the German examples of (11) below) demonstrates, in any case, that expletive replacement cannot be the general mechanism by which the existence of expletives is reconciled with the Principle of Full Interpretation (Chomsky 1986b) and suggests that we may be better off without the device.<sup>12</sup>

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(11) a.... sua sua be sumum monnum cueden is (Kemenade (this volume))
... as about some men said is
b.... daß gelacht wurde
... that laughed was
```

Our analysis of Spec,IP in subordinate clauses now allows us to understand why the position is empty in main clauses in Old English. V2 languages are universally defined by a requirement that topics be in a Spec-head relationship with the finite verb. While much discussed, this striking requirement has never been reduced to anything more fundamental. We assume that Old English, as a V2 language, is subject, like the others, to this "V2 constraint." However, under our analysis the V2 constraint cannot apply directly to the topic and verb themselves in Old English, because these are not in a Spec-head relationship on the surface. The topic is necessarily in Spec,CP because that is the specifier of the highest projection of its clause; and the verb, due to its feature content, raises only as far as I°. To establish the required relationship, therefore, the topic must move through Spec,IP on its way to Spec,CP, leaving its trace to fulfill the V2 constraint. That traces may serve this function is shown by the following German and Yiddish examples of

<sup>&</sup>lt;sup>12</sup>It is worth noting that empty expletive incorporation has as one of its virtues that it provides a mechanism for the agreement relation between finite verbs and nominative objects in Icelandic, a phenomenon not easily treated if all agreement relations are checked in Spec-head configurations.

extraction out of complementizer-less subordinate clauses, where the verb in C° is in a Spec-head relationship with the trace of the extracted topic:<sup>13</sup>

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(12) das Museum_i hat er gesagt [CP e_i dürfen [IP wir e_i besuchen ] ] the museum has he said may we visit
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(13) dvorem-beteylem_i vilst du [_{\rm CP} e_i zol [_{\rm IP} ikh mit dir redn e_i]]? simple words want you shall I with you speak
```

Because Spec,IP is the intermediate landing site for the topic in an Old English main clause, it can never contain anything but the trace of the topic and so will always appear empty.

If the topic is to move through Spec, IP, that position must not be needed to establish a Spec-head relationship between the subject and the agreement morpheme. We must assume, therefore, that, as in subordinate clauses in Old English, matrix sentences with non-subject topics contain incorporated empty expletives to check off the agreement features of I° and to chain-license the subject in a lower position (Spec.VP or, assuming a split INFL, Spec.TP). Since the licensing of topics in main and subordinate clauses is identical, we are now without a simple syntactic explanation for the greatly reduced range of topicalizations in subordinate as opposed to matrix clauses; but this difference may, indeed, not be a syntactic fact. The difference between main and subordinate clauses seems to reflect discourse-based information-structure considerations. In matrix clauses, topicalization is often highly favored, or even required, by the discourse context; and in order for the needed topicalized sentences to surface in Old English, empty expletive chains must used across a wide range of cases. In (non-CP-recursion) subordinate clauses, by contrast, topicalization has very weak discourse motivation and so expletive chains are used only where information-structure considerations favor them - that is, in the classical environments in which subjects prefer not to appear in Spec, IP. The use of the expletive chain then frees up Spec, IP for a non-subject to appear as topic even if the topicalization is only weakly motivated. The correctness of attributing the differences in the range and frequency of main and subordinate clause topicalization to discourse considerations cannot be demonstrated in the current state of our knowledge of discourse structure; but it is consistent with the facts as we know them, including the uncertainty of native speaker

<sup>&</sup>lt;sup>13</sup>We thank Beatrice Santorini for these examples.

judgments on the acceptability of subordinate clause topicalization in living IP-V2 languages like Icelandic and Yiddish. In both of these languages, speakers differ on whether the full range of topicalization is available in subordinate clauses; and text corpora show only cases like those found in Old English, for which the expletive chain analysis is plausible (Eiríkur Rögnvaldsson, personal communication; Beatrice Santorini, personal communication). The variability in judgments and the difference between what is judged acceptable and what actually occurs in connected discourse point to the plausibility of a discourse constraint (and speakers' differential sensitivity to discourse factors in giving judgments) as the source of the main/subordinate difference in the range of topicalization.

To summarize a complex discussion, we have provided in our modified version of Pintzuk's analysis a treatment of Old English V2 with the following virtues:

- 1. It explains how Old English can both be a V2 language and exhibit INFL-final main clauses. Since the landing site for the verb in a V2 sentence is a medial INFL rather than COMP, as it is in German or Dutch, we do not expect underlyingly INFL-final clauses to exhibit V2 word order.
- 2. The position of Old English clitic pronouns, subject and non-subject alike, requires no special treatment. Pronouns simply move to the CP/IP boundary, as in modern German.
- 3. The existence of true verb-third sentences with sentence-initial adverbial adjuncts is accommodated because the V2 constraint is imposed at the IP instead of at the CP level.
- 4. The grammatical and historical relationship between declaratives and questions is straightforwardly expressed. Questions belong to the class of sentence types in which features in C° force movement to that position, while the C° of ordinary declaratives lacks the appropriate feature content to force movement. Historically, modern English simply preserves the Old English distinction between questions and declaratives; but while it has kept V-to-C movement in the former, it has lost V2 in the latter.
- 5. The possibility of V2 word order in non-CP-recursion subordinate clauses is accommodated, and its limitation to contexts where the subject does not appear in Spec,IP is accounted for.

Although the proposed analysis leaves us with an important open question, namely how exactly discourse effects produce the different distribution of main and subordinate clause topicalization, we can conclude that Pintzuk's claim that in Old English, V2 sentences involve finite verb movement to I° rather than to C° is defensible.<sup>14</sup>

### 5 The V2 syntax of the Middle English dialects.

The V2 pattern we have described for Old English is largely maintained in the earliest Middle English of the West Midlands and southern dialects, except for the complete loss of the INFL-final phrase structure option. This loss occurs in all dialects but is irrelevant to the INFL-medial cum V2 pattern, which persists into the fourteenth century. From the beginning, however, there are a certain number of exceptions to expected word order, and these grow in number with time. Except in Kentish, a particularly archaic southern dialect, we find by the mid-fourteenth century that the V2 constraint is clearly being lost. The analysis of the exceptions and how they increase is a matter of considerable interest, but it lies beyond the scope of this paper (see Kroch et al. 1995 for further discussion). We believe that the loss of V2 is the result of competition between the grammars of the northern and southern dialects. This competition, however, can only be studied once we have a reasonable picture of the competing systems, which is our goal in the present discussion. The texts we investigate in this paper are as close to pure representations of single grammatical systems as the surviving Middle English data affords.

In the North and in the Northeast Midlands, the areas of greatest Scandinavian settlement and linguistic influence, the history of the V2 pattern is different from the history in the South. Unfortunately, there are no manuscripts of northern prose before 1400, which makes direct

<sup>&</sup>lt;sup>14</sup>Beatrice Santorini points out to us that one interesting feature of our analysis here is that it relates topicalization in modern English more closely to the Old English construction than is usual. In modern English, where V2 does not obtain, the order topic > subject > verb is the only one allowed, and one might ask what licenses the topic position. Our analysis gives an obvious answer: verb-movement to C° at LF, just as in Old English. The difference between the two languages is simply that modern English has lost the V2 requirement, perhaps because it lost expletive incorporation, forcing agreement and case to be checked with an overt subject in Spec,IP. The difference between the two languages proposed here would most plausibly have arisen because modern English lost empty expletive incorporation in connection with its loss of empty expletives.

comparison with southern dialects impossible; but evidence from poetry indicates a pattern unlike the Old English one. A recent investigation of the Ormulum (Morse-Gagné 1992), a very early Middle English poem written in Lincolnshire, an area of dense Scandinavian population, reveals that pronoun and full NP subjects are more alike than different in their behavior. Both exhibit nearly categorical subject-verb inversion in sentences with noun phrase objects in topic position. In sentences with adverbs in topic position, inversion is categorical with full NP subjects and variable with pronoun subjects. While we do not understand this variability, it is sufficient for present purposes to note that it does not follow the pattern described above for Old English, but is rather more random. We believe that the variability of inversion with pronouns in the Ormulum and other northern texts reflects contact of the Old English V2 system with a Scandinavian-influenced one and hope to show this in future work. For the present, however, we have fortunately found material, to be described below, in which this variability is minimized and allows us relatively direct access to a single, coherent northern grammar.

5.1 The southern dialects. As we have remarked, the early southern texts of Middle English exhibit the same basic patterning of the V2 constraint as is found in Old English. Table 1 shows this clearly. It combines data on positive declarative sentences from seven Midlands texts of the early to mid-thirteenth century: the Trinity Homilies, Lambeth Homilies, Sawles Warde, Hali Meiðad, Vices and Virtues, St. Katherine, and Ancrene Riwle. The sample consists of a total of 3064 matrix clauses, an exhaustive sample of the text excerpts in the Penn-Helsinki Parsed Corpus of Middle English (1994) (PPCME), the source of all our Middle English data. The contributions of the individual texts in this early southern group range from 230 to 689 clauses. They have been grouped together to increase the size and reliability of the figures in the table, since there is no evidence of

<sup>&</sup>lt;sup>15</sup>The Penn-Helsinki Parsed Corpus of Middle English is a syntactically annotated and somewhat extended version of the prose Middle English section of the Helsinki Corpus of English Texts originally assembled under the direction of Matti Rissanen at the University of Helsinki (see Kytö 1993). The annotation work was done under the direction of Anthony Kroch at the University of Pennsylvania with the support of the National Science Foundation (Grant #BNS89-19701) and with supplementary support from the University of Pennsylvania Research Foundation. The annotation scheme was designed by Anthony Kroch and Ann Taylor and implemented by Taylor. The PPCME is available to scholars without fee for educational and research purposes via anonymous ftp from babel.ling.upenn.edu and over the World-Wide Web (http://ling.upenn.edu).

any difference in the V2 syntax of these texts.

	NP subjects			Pronoun subjects		
Preposed element	Number inverted	Number uninv.	% inverted	Number inverted	Number uninv.	% inverted
NP complement	50	4	93	4	84	05
PP complement	12	4	75	0	11	00
Adj. complement	20	1	95	7	14	33
þa/then	37	2	95	26	10	72
now	12	1	92	8	22	27
PP adjunct	56	19	75	2	99	02
Any other adverb	79	59	57	1	181	01

Table 1: V2 in seven early Midlands texts.

We see above, with exceptions as we have noted, the expected Old English pattern. Preposed complements generally trigger inversion of subject and verb with full NP subjects but almost never do so with pronoun subjects. The temporal adverbs 'ba' and 'then' trigger inversion with both NP and pronoun subjects, though not as regularly with pronoun subjects as in Old English, an indication that these adverbs are losing their special status. The adverb 'now' is included in the table because in Old English it sometimes behaves like 'ba' and sometimes like other adverbs; and as in Old English, it here behaves variably.

If we look at a sample of approximately 200 clauses from a text of the Kentish dialect, the "Ayenbite of Inwit," we see the pattern repeated:

	NP subjects			Pronoun subjects		
Preposed element	Number inverted	Number uninv.	% inverted	Number inverted	Number uninv.	% inverted
NP complement	14	3	82	1	11	08
PP complement	2	0	100	0	1	00
Adj. complement	5	0	100	0	1	00
then (no pa in text)	4	12	25	7	5	58
now	1	0	100	7	7	50
PP adjunct	5	9	36	1	30	03
Any other adverb	19	15	56	5	52	10

Table 2: V2 in the Ayenbite of Inwit (Kentish).

The data in Table 2 is interesting because the Ayenbite text is from a holograph manuscript of the mid-fourteenth century, at least 100 years later than the Southwest Midlands texts. By this time, the language of most of England was well on its way to losing the V2 constraint; but Kentish, an isolated dialect that eventually died out, still preserved the Old English pattern of V2 nearly intact. The only difference between the Kentish data and the earlier texts is a further erosion in the exceptional status of 'then' and 'now' and a generally freer attachment of adjuncts to CP, reflected in the lower rates of inversion of full NP subjects after PP adjuncts and adverbs.

5.2 The northern dialect. Because of the gap in the surviving record mentioned earlier, the syntax of the northern dialect is not easy to investigate. Nevertheless, there is sufficient evidence to support our claim that northern Middle English was a CP-V2 language. Well before 1400, the date of the first prose texts from the North, northern texts (for example, the writings of Richard Rolle) as well as Midlands texts (for example, the works of John Wycliffe) show less than half of appropriate sentences inverting subject and verb in order to obey the V2 constraint (Kemenade 1987). The mixture of V2 and non-V2 sentences in these texts indicates competition between V2 and non-V2 grammars (see the references cited in note 4); and, therefore, these texts cannot be

treated as grammatically uniform.<sup>16</sup>

In surveying for descriptive purposes the syntax of all the text samples in the PPCME, however, we unexpectedly found that one northern text, the so-called "Northern Prose Rule of St. Benet" (Kock 1902), exhibits word order in V2 contexts that is not variable in the way that other late texts are. The Benet text is the first surviving prose document in the northern dialect and it comes from central west Yorkshire, hence either within or directly bordering the major area of Norwegian settlement in the North (McIntosh et al. 1986, Wells 1916). Until the rise of the cloth industry in the late 14th century, the area was thinly populated and isolated, due in part to the famous devastation of the region wrought by William the Conqueror. Hence, like Kent in the South, it is a plausible relic area in which a dialect once spoken more widely might have survived longer than elsewhere. Indeed, the linguistic evidence is clear. In sentences with nonsubject topics, the text exhibits almost categorical subject-verb inversion, in accordance with the V2 constraint. Crucially, this inversion occurs whether the subject is a full NP or a pronoun and also independently of the grammatical function or lexical identity of the topic. In other words, the complex conditioning found in Old English and in the Early Middle English of the South is absent. The sharp distinction between the two dialects of Middle English is clearly revealed in the following table.<sup>17</sup>

<sup>&</sup>lt;sup>16</sup>The works of Chaucer show a higher rate of inversion in topicalized sentences than other well-known late 14th century texts (Kemenade 1987, Kroch 1989a). Chaucer was also as likely to invert a pronominal subject with the tensed verb as a non-pronominal one, unlike other authors. If the argument presented below linking inversion with pronoun subjects to Scandinavian influence is correct, Chaucer's syntax may be of a piece with his East Midlands phonology, since the East Midlands were part of the Danelaw. His language may, therefore, indicate a certain conservative regionalism compared to the developing London standard.

<sup>&</sup>lt;sup>17</sup>The discussion in this section is based on an exhaustive sample of the Benet text, which has been entered in its entirety into the PPCME.

	NP subjects			Pronoun subjects		
Preposed element	Number inverted	Number uninv.	% inverted	Number inverted	Number uninv.	% inverted
NP complement	7	0	100	58	3	95
PP complement	18	0	100	10	0	100
Adj. complement	1	0	100	4	2	67
then (no pa in text)	15	0	100	28	1	97
now	no data			2	0	100
PP adjunct	42	5	89	73	7	91
Any other adverb	25	1	96	51	5	91

Table 3: V2 in the Northern Prose Rule of Saint Benet.

As is evident, there are two major differences between the frequencies of V2 in Benet and in the Midlands and southern texts. First, pronoun subjects, instead of failing to invert in most environments, invert nearly as frequently as full NP subjects do. Second, there is no tendency for preposed adverbs and PP's to adjoin to CP; that is, not to trigger inversion. These differences show that the V2 pattern of the northern dialect differs sharply from that of the southern and give us an indication as to how it does. One possible analysis that we have discussed (Kroch 1989a, Morse-Gagné 1992) is that the grammar of pronouns has changed in the North. Instead of being clitics of the Old English sort, they might have become like the pronouns of modern English, behaving syntactically more or less like full NPs. The plausibility of such a change occurring in the North is supported by the fact that it was into the northern dialect that the Scandinavian pronoun 'they', a demonstrative in origin, was first borrowed (Morse-Gagné 1992). That borrowing could well have altered the syntactic character of the entire pronoun system. As we will see, however, the syntax of pronouns in Benet does not appear to differ from that of pronouns in the southern texts, apart from those environments where the grammar of V2 is at issue. Pronouns do eventually change character in Middle English, losing their tendency to move leftward, but this change is common to North and South and is not responsible for the differences in V2 patterning between the dialects.

The most evident defect of an appeal to pronoun syntax as the source of the differences in the V2 patterns of Benet and the southern texts is that it accounts for only one of the two major differences between those texts that are apparent from Table 3. As noted, in addition to what happens in sentences with pronoun subjects, the table shows nearly categorical inversion of full NP subjects in sentences introduced by adverbs or adjunct PPs. The character of pronouns is irrelevant to this distribution; hence, even if the pronouns in the North had changed character and so had come to invert in V2 environments, some additional difference with the South would have to be invoked to account fully for the V2 pattern of the Benet text. The obvious candidate is the difference between verb movement to Io and to Co. If the language of Benet were CP-V2, then, like German or modern Mainland Scandinavian, it should exhibit inversion nearly categorically when preposed adverbial and prepositional phrase adjuncts were attached at the CP level, where they regularly fail to trigger inversion in Old English or southern Middle English. Of course, as in German, there would be cases of verb-third word order as well; but, in general, we would expect elements that adjoin to CP in Old English to move to Spec, CP in Benet and to trigger inversion from that position. Under this analysis, categorical inversion with pronoun subjects would have to occur even if the pronouns did not lose their clitic status, because the verb would always move beyond the CP/IP boundary to Co, and so appear to the left of any subject, NP or pronoun. Thus, a single difference between the grammars of Benet and the southern texts would account for both of the differences revealed by our table.

Another problem with reducing the differences between northern and southern V2 to a difference in the clitic status of pronouns is that there is positive evidence for treating subject pronouns in Benet as clitics of the Old English sort. Consider the following examples:

- (14) pat **erin** hauis, herkins wat be half spirt sais in half writ. (Benet 2.4) whoever ears has harkens what the holy spirit says in Holy Writ.
- (15) a. Bot yef it **sua** bi-tide, pat any falle in mis-trouz; pan sal scho pray gerne to but if it so betide that any fall into mistruth than shall she pray earnestly to god. (Benet 19.30)

  God.
  - b. Yef yt **sua** may be, alle sal lie in a hus, bat ilkain wite of obir. if it so may be all shall lie in a house that each know of (the) other

(Benet 20.18)

Example (14) is an instance of stylistic fronting, a process known from the Scandinavian languages (Maling 1990) and found in all dialects of Middle English. It is possible only where the subject position is empty (Maling's "subject gap condition"). The examples in (15) might also be analyzed as instances of stylistic fronting (and are not easily amenable to any other analysis), but in these cases there is a preverbal subject present. Such examples, however, are limited to sentences with pronominal subjects; and if the pronouns are analyzed as clitics which move leftward out of Spec,IP, then these examples too conform to the subject gap condition. Indeed, just such an analysis has been proposed for entirely parallel cases in Old Swedish (Platzack 1988). The application of Platzack's analysis to northern Middle English is clearly incompatible with the claim that pronouns in the North have lost their clitic status.

## 6 Further grammatical comparisons of North and South.

- 6.1 "Doubly-filled COMP" sentences. Certain additional pieces of grammatical evidence support the hypothesis that Benet and the southern texts differ in the syntactic domain of V2. The first is provided by the presence of "doubly-filled COMP" sentences of a type also attested in the modern Germanic languages, as well as in other languages, including Latin and modern dialects of Spanish (Iatridou and Kroch 1992). These are subordinate clauses introduced by an overt complementizer, in which a constituent has been preposed to the immediate left of C°, as in (16):
- (16) a. I sal yu lere be dute of god, his wille bat 3e may do. (Benet 2.5) I shall you teach the duty of God, his will that ye may do.
  - b. ilkain sal take discipline at oþir, als **hir mastiresse** þoz scho ware.... each-one shall take discipline of (the) other, as her mistress though she were (Benet 10.7)
  - c. Lauerd, we prai be for bi misericorde bat we mai sua yeme bis reul o mekenes, Lord, we pray thee for thy mercy that we may so take this rule of meekness In be felazscap of bin angels bat we may be. (Benet 11.25) in the fellowship of thine angels that we may be

There are 10 examples of this sort in Benet, while in the much more extensive Midlands and southern material in our corpus, there are only two possible cases, one of which is doubtful. The Benet examples are all cases where the clause in which the topicalization occurs is ungoverned – hence, not a CP-recursion environment. Indeed, the examples look very much like certain cases in Bavarian described by Bayer 1983 and Fanselow 1987.<sup>18</sup> The following examples, quoted by Santorini (1989) in her discussion of these cases, illustrate the Bavarian construction:

- (17) a. **Die Franca** daß du kennst glaube ich nicht. the Franca that you know believe I not 'I don't believe that you know Franca.'
  - b. **Die Franca** daß geheiratet hat ist nicht wahrscheinlich. the Franca that married has is not likely 'It's unlikely that Franca has married.'

The most straightforward analysis of the Benet examples is the one given by Fanselow for Bavarian, under which the boldface constituent has been preposed into the specifier position of the complementizer of its clause.<sup>19</sup> The fact that movement to Spec,CP occurs in non-CP-recursion subordinate clauses with filled complementizers in this text makes it unlikely that Spec,IP could be a subordinate clause topic position in this dialect in the way that it is in Old English. We would not expect two topic positions to coexist for a single clause type. Hence the Benet dialect must be strictly CP-V2.

- (i) a. Gelachen dat we hebben! laughed that we have 'How we laughed!'
  - b. een boeken dat ik gelezen heb!
    one books that I read have
    'What a lot of books I have read!'

The singular article with plural import in (iib) is characteristic of exclamatives. We thank Jack Hoeksema for drawing our attention to these cases.

<sup>&</sup>lt;sup>18</sup>Constructions similar to one we have found in Benet are not hard to find in the Germanic dialects. Thus, in modern Dutch such sentences are found as exclamatives:

<sup>&</sup>lt;sup>19</sup>Santorini gives reasons to modify Fanselow's analysis, but in a way that does not affect our reasoning here.

Since the Benet text is the translation of a Latin original and since Latin allowed doubly-filled COMPs, we might think that the presence of the construction in Benet reflected the literary influence of Latin.<sup>20</sup> If so, its occurrence would tell us little or nothing about the nature of V2 in the indigenous northern language. However, it is unlikely that the construction reflects Latin influence, and for two reasons. First, the conditions on the preposing are not the same in Latin as they are in Benet. In Latin, unlike in Benet or in Bavarian but just as in certain modern Romance dialects, the preposing may occur in governed subordinate clauses rather than being limited to ungoverned ones. Second, none of the examples in Benet is a translation of a Latin doubly-filled COMP sentence. Indeed, the Benet text is a very free rendering of St. Benedict's Rule, with much omitted and with considerable commentary, not identified as such, that is absent from both the Latin original and the Old English version. As it happens, almost all of our examples come from such sections of commentary and, therefore, are not translations of any material in the originals. None of the examples corresponds to any sentence in the Latin or Old English versions that could have served as a model for its syntax.<sup>21</sup>

- **6.2** A comparative idiom. Another source of evidence on the difference between the V2 syntax of the North and South lies in the syntax of a common but marked construction of English, the "more... more" construction, a modern example of which is given in (18):
- (18) The more (that) he drinks, the drunker he gets.

This construction also occurs in Benet, as the following example shows:

(19) for **be mare** bat sho est he3id ouir tobir **be mare** a3h sho at halde be for the more that she is raised over the-other the more ought she to hold the cumandement of be reule. (Benet 44.4) commandment of the rule

Tellingly, the first clause of the construction is introduced by a 'that' complementizer and does not exhibit inversion of the subject and verb, while the second clause has no introductory com-

<sup>&</sup>lt;sup>20</sup>We thank Harm Pinkster for bringing this possibility to our attention.

<sup>&</sup>lt;sup>21</sup> We thank Donald Ringe for checking our examples against the Latin and Old English texts in Logeman's (1888) edition of St. Benedict's Rule.

plementizer and does exhibit inversion. Given the close parallelism between the two clauses in this construction, it seems reasonable to suppose that the phrase 'the more' occurs in the same position in both. If so, that position must be Spec,CP, given that the phrase occurs to the left of a complementizer in the first clause. It is instructive to compare the construction in (19) to a corresponding construction found in the southern texts.<sup>22</sup> illustrated by the example in (20):

corresponding construction found in the southern texts, 22 illustrated by the example in (20): (20) for eauer se 3e nu her mearred me mare se mi crune schal beon brihttre for ever so (= as) ye now here damage me more so my crown shall be brighter ba & fehere (St. Juliene 101.19) both and fairer

Here the comparative particle 'so' that introduces the parallel clauses does not trigger inversion of subject and verb in either. If we assume that 'so' is in C° in both cases, we correctly expect no inversion after it. Compare, moreover, the sentence in (21):

(21) & eauer se bu mare hauest se be schal mare trukien (Hali Meiðhad 131.11) and ever so thou more has so to-thee shall more fail

In this sentence, in which a dative pronoun has moved to Spec, IP, the subject and verb are inverted within IP inside the second clause. This case, where the dative acts as a subject of predication, is of just the type which in Old English exhibits IP-V2 structure.

#### 7 The effect of Scandinavian contact on V2 in the North.

It is well known that northern Middle English had a reduced set of agreement endings on its verbs (Brunner 1938, Mossé 1968, Roberts 1993). Indeed, in the present tense in all persons and numbers but the first singular, which had -e, the ending was -(e)s; and in Scotland even the first person singular was occasionally -s (Brunner 1938). This system represents a simplification compared to the Old English and southern Middle English pattern, which had -e, -(e)s(t), -(e)th in the three persons of the singular and -(a)th (-(e)n in the Midlands) in all persons of the plural. Since the Old Norse system of endings was richer even than Old English, it has not been clear where the northern simplification came from. However, if we follow modern sociolinguistic approaches to the

<sup>&</sup>lt;sup>22</sup>Examples like (19) are almost nonexistent in the southern text samples in our corpus. We have found only three, of which two are from the "Ayenbite of Inwit" and so are quite late.

relationship between language change and second-language acquisition (Appel and Muysken 1987), we are led to suggest that the simplification is the result of imperfect second-language learning of English by the Norse invaders of the 9th to 11th centuries. The appearance of Norse-origin grammatical markers in the northern dialect (see section 2 above) is clear evidence that second-language learners with an imperfect command of English grammar were a sufficiently large fraction of the population in the North to pass on their mixed language to succeeding generations, what is traditionally known as a substratum effect. One feature of imperfect learning, as is well known, is the imperfect acquisition of inflectional endings; and the northern Middle English endings seem to have originated in this way. The simple replacement of the marked anterior fricative  $/\theta/$  by the unmarked anterior fricative /s/ is nearly all that is needed to transform the Old English paradigm into the northern Middle English one, and there is evidence of confusion between the two sounds in 9th century Northumbrian (that is, the northern dialect of Old English). Scribes, in addition to writing /s/ for  $/\theta/$ , occasionally wrote a hypercorrect  $/\theta/$  for /s/ in verbal endings (Brunner 1965).<sup>23</sup> We propose, therefore, that imperfect learning in a language contact situation was responsible for this morphological change (see Kroch et al. 1995 for further discussion).

Now we have the basis for understanding the origin of the northern V2 grammar. According to the most straightforward interpretation of the idea that V-to-I movement depends on rich agreement, the northern system of endings does not make enough distinctions to support movement (Platzack and Holmberg 1989, Roberts 1993, Rohrbacher 1994); if there is no V-to-I movement, it is clear why the northern dialect must be a CP-V2 language. With the verb not appearing in

 $<sup>^{23}</sup>$ It might seem odd that Norse speakers should fail to acquire the word-final  $/\theta/$  of Old English, since their native language contained the sound. In support of our proposal, however, are two facts. First, the distribution of the voiced and voiceless allophones of the phoneme differed in the two languages. Norse had the voiced allophone everywhere but word-initially, while Old English had only the voiceless allophone in word-final position (Noreen 1923, Brunner 1965). Thus, speakers of Norse apparently heard final  $/\theta/$  as the phonetically similar /s/ because in their language /s/ but not  $/\theta/$  could occur in word-final position. Furthermore, /s/ in Norse was always voiceless. Second, verbal endings in Old English must have been weakly articulated, hence perceptually unsalient and prone to being misheard by non-native speakers. Evidence for the phonetic weakness of the endings appears in the phonologically unmotivated syncope of the vowel in the endings, though this syncope is characteristic of the southern (West Saxon and Kentish) dialects of Old English and occurs only rarely in Mercian and Northumbrian (Brunner 1965). We thank Donald Ringe for guidance through the philological literature on the points made here.

I°, IP could not be the locus where the V2 constraint (see section 4 above) was satisfied, since no Spec-head relationship between topic and verb could be established in overt syntax. Therefore, the reduction of the verbal agreement system would force the reanalysis of an IP-V2 grammar into a CP-V2 one.<sup>24</sup>

There is, however, one substantial obstacle to the scenario we have sketched. As Roberts (1993) points out, sentences like (22) indicate that, contrary to our hypothesis, northern Middle English did exhibit V-to-I movement:

(22) be barnis bat ere yunge bat vnderstandis noht what paine fallis til cursing the children that are young that understand not what punishment falls to cursing (Benet 23.101)

Since the negation in (22) is in a relative clause (not a domain for CP-recursion), the order of tensed verb and 'not' must be due to movement of the verb to a lower functional head than C°; that is, to I° under the phrase structure we have been assuming. Not only is the word order in (22) possible, it is obligatory for all verbs, as one would expect if it reflected V-to-I movement. Further effects of this movement are exemplified in a sentence like (23), in which the order of pronoun object and 'not' reflect Mainland Scandinavian-type object shift of pronominal objects, which is also obligatory:

(23) rennes fast do wilis ye haue liht þat þe mirkenes o ded our-take **þe noht** run fast while ye have light so-that the murkiness of death overtake thee not (Benet 2.6)

These data make it clear that the northern dialect does not share the apparent lack of verb movement characteristic of modern Mainland Scandinavian, despite its relatively impoverished verbal

<sup>&</sup>lt;sup>24</sup>From the usage patterns in Orm and Chaucer (see above), it seems that, besides arising in the North, the CP-V2 grammar also took hold to some extent in the East Midlands, although the morphology of verbal endings in Midlands Middle English was rich enough to support the original Old English syntax. Further investigation will be needed to uncover why the CP-V2 grammar appears in the East Midlands. One possibility is that the collapse of agreement in that area, one of extensive Scandinavian settlement at the time of the 9th and 10th century Danish invasions, is subsequently reversed, due to contact with and population influx from adjacent dialect areas that maintained the native English morphology. This reversal could easily have happened without reversing the syntactic change from IP-V2 to CP-V2.

inflections (see Roberts 1993 for further discussion).

If we accept the conclusion that northern Middle English had verb movement, we cannot maintain our scenario for the history of the dialect in the simple form outlined above. There is, however, a modified version that can be maintained, provided that we adopt the split-INFL hypothesis of Pollock (1989). We assume, as is usual, that AGR-S is the highest projection below COMP and that T(ense) is the next highest. Let us further suppose (following a suggestion by Naess cited in Thráinsson 1994) that the modern Mainland Scandinavian languages have verb movement to T, though not to AGR-S. This proposal has the virtue of maintaining a strict relationship between overt morphology and verb movement.<sup>25</sup> Since Scandinavian has overt tense marking in both the present and the past, it has verb movement to T. By the same logic, so does northern Middle English; and if so, then raising only as far as T could explain why we see movement across negation and object shift. If northern Middle English 'not' is an adverb adjoining to VP, as it certainly was in Old and earliest Middle English (see Frisch 1994 for detailed discussion), then verb movement

- (i) a. Mary has completely finished her work.
  - b. \*Mary completely has finished her work.

In Swedish, by contrast, the word order corresponding to (ia) is impossible, while that in (ib) can occur, though the sentence is less acceptable than one where the adverb is right-adjoined to VP. Here are illustrative examples from Anders Holmberg (personal communication to Bernhard Rohrbacher). The context is a non-CP-recursion subordinate clause to avoid interfering V2 effects on word order:

- (ii) a. \*Jag beklagar att du har helt misslyckats i testet.

  I am sorry that you have wholly failed on the test
  - b. ?Jag beklagar att du helt har misslyckats i testet.
    I am sorry that you wholly have failed on the tes

The contrast between English and Swedish is striking. We take it to show that left-adjunction to VP is blocked for some reason in Scandinavian, so that the adverb facts cannot be used to argue against movement to T.

<sup>&</sup>lt;sup>25</sup>There is one major problem with saying that finite verbs in Mainland Scandinavian move to T: We would expect on such a proposal to find the verb moving across left-adjoined VP adverbs, but such movement seems never to occur. It is unclear how to interpret this fact, however, because it is hard to show that the languages allow left-adjunction to VP, and without such adjunction we cannot test whether the verb has moved out of VP to T. Evidence exists, in fact, that the Scandinavian languages resist the left-adjunction of adverbs to VP. Thus, in English certain aspectual adverbs, 'completely', 'entirely', and so forth, always occur VP-adjoined, either to the left or the right, and can never occur adjoined to higher projections. This is clear from the contrast between (ia) and (ib):

to T will produce the attested order of V<sub>finite</sub> > 'not'. Further, if object shift is movement to any functional specifier above VP (see note 7), the order pro<sub>object</sub> > 'not' found in examples like (23) will also be correctly generated. The remaining question is why the order of 'not' and tensed verb should be different in northern Middle English than in modern Mainland Scandinavian, given that we take the verb movement facts to be the same in the two cases. But the answer here is straightforward: Northern Middle English inherited the Old English double negative construction 'ne ... not', in which 'ne' is the negative head and 'not' is a VP-adjoined adverb, as Frisch shows. Hence, we expect to find 'not' below and to the right of T. In modern Mainland Scandinavian, on the other hand, there is no counterpart to 'ne', so that the single negative 'inte/ikke' must be either a negative head or the specifier of NegP, which is located above T in both English and Scandinavian. Therefore, movement of the verb out of VP to T does not change its relative order with respect to negation.<sup>26</sup>

Using a split INFL forces us to reformulate slightly our account of the role of the V2 constraint in the reanalysis in the northern dialect. We have argued that the constraint is met in Old English by a surface Spec-head agreement relation between the trace of the fronted topic in Spec, IP and the verb in I°; and this relationship requires overt verb movement to I°. Once INFL has been split, we must ask again where the V2 constraint will be satisfied. The obvious answer is AGR-S; and if that is the locus of the constraint, our analysis of the northern dialect remains viable, since we claim that the verb in the northern dialect does not move as high as that position. If, however, the constraint could be met at the level of T, our analysis would fail, since we have claimed that the verb in the northern dialect does move to T. Notice, however, that using T as

<sup>&</sup>lt;sup>26</sup>If Mainland Scandinavian has verb movement to T and the negative particle is generated in a NegP above T, then we cannot maintain the widely-known analysis of object shift as movement to Spec, AGR-O. The problem is that movement of the direct object to Spec, AGR-O will always be string vacuous with respect to negation and adverbs adjoined above T. We assume that some other analysis will prove viable, perhaps one based on cliticization (see Bobaljik and Jonas 1993 and the references cited there). The clitic position would have to be higher than T in Scandinavian and lower than T in northern Middle English. Then when the verb moves to T in Scandinavian it will still be in a position that blocks object shift, while in Middle English it will have moved far enough to permit the object to move. This difference presumably reflects a general prohibition against overt material between TP and VP that Scandinavian seems to have, of which the prohibition against left-adjunction to VP discussed in note 7 is another manifestation.

the locus of the constraint implies empty expletive incorporation into T to free up Spec, TP as an intermediate landing site for the topic. But for conceptual reasons such incorporation is not possible. Expletive incorporation must entail the merger of the expletive, a pronominal, with the agreement features of a verbal functional head; and the whole point of the split-INFL analysis is to put these features in a different functional head from the one that bears tense.

# 8 Dating the CP-V2 grammar.

If, as we have supposed, the difference in V2 syntax between Benet and our southern texts is due to contact with Scandinavian in the North, the language of the North must have acquired its properties much earlier than 1400. Indeed, we would expect such a contact effect to date to the 10th century or earlier, the time of the mixing of the Scandinavian and Anglo-Saxon populations. Unfortunately, there are no Old English texts from Northumbria, the area of contact at the appropriate time, except for two glosses of the Latin Vulgate Bible. These texts, the Lindisfarne and Rushworth glosses, do, however, turn out to be informative. They consist of interlinear Old English glosses added above a previously written Latin text. The Lindisfarne gloss is in Northumbrian dialect spelling and was added to the Latin manuscript around 950 by the priest Aldred, probably in Durham. The Rushworth gloss is in two (contemporary) hands. All of Matthew and up to Mark 2:16, as well as John 18:1–3, are written by a priest named Farman in a spelling which differs little from the West Saxon standard and is probably Mercian, while the rest is written by Owun in the Northumbrian dialect. The Rushworth gloss depends on the Lindisfarne to some extent and dates from the latter half of the same century.

The first interesting fact about these glosses is that they exhibit variability in the verbal agreement endings. Alongside the expected Old English endings are found the later Northern Middle English ones (Brunner 1938). In the admittedly fragmentary Northumbrian texts which predate the arrival of the Scandinavians, on the other hand, no such deviations from the expected Old English forms are found (Whitelock 1967).<sup>27</sup> These facts point clearly to the the period between the 8th and the 10th centuries as the time of origin of the northern Middle English endings and

<sup>&</sup>lt;sup>27</sup>The texts do, of course, exhibit phonological differences from West Saxon in their person endings, but no morphological differences. See Kroch et al. 1995 for further discussion.

thus support the postulation of Scandinavian contact as a causal factor in their development.

As for the dating of the northern V2 grammar itself, the glosses are also helpful. Although we might not expect word-for-word glosses to yield evidence on word order, there was one particular context in which the glossers of the Vulgate had to make word order choices; and in this context we see a pattern that gives evidence for the existence of CP-V2 in the North at an early date. The relevant context is the tensed sentence with a preposed sentence-initial constituent and a pronoun subject. Because Latin is a pro-drop language and Old English is not, the glossers routinely added subject pronouns in the gloss which were absent in the original. While most added pronouns occur in the canonical position before the verb, there are a significant number of cases where the Latin word order places a constituent in sentence-initial position, with the verb immediately following, thereby suggesting to a Germanic speaker an interpretation of the sentence as a topicalization with V2. In such cases, the northern glossers sometimes wrote the subject pronoun after the verb. By contrast, in the Early West Saxon translation of the gospels, the standard Old English pattern with the pronoun in preverbal position always obtains. Below are some examples from Skeat (1881–1887) with the relevant verbs indicated in boldface and their pronoun subjects in italics.<sup>28</sup> For comparison we give the corresponding sentences in the Early West Saxon full translation:

- (24) LATIN: dominum deum tuum adorabis LINDISFARNE: drihten god ðin **worða** ðu RUSHWORTH: drihten god ðinne **wearða** ðu WEST SAXON: drihten þinne god ðu **geead-metst** 
  - 'You will worship the Lord your God.' (Luke 4.8)
- (25) a. LATIN: oculos habentes non uidetis LINDISFARNE: ego **habbað** gie ne geseað gie RUSHWORTH: ego **habbas** ge ne gi-seas ge WEST SAXON: Eagan ge **habbað** & ne ge-seoð

<sup>&</sup>lt;sup>28</sup>The negated verbs in these examples are not relevant, as they would have moved to C° even in the southern dialect. The example from Luke is equivocal because the verb is interpretable as an imperative, though the Latin original has second person future.

'Having eyes, do you not see?' (Mark 8.18)

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b. LATIN: aures habentes non auditis nec recordamini LINDISFARNE: & earo gie habbað ne geherað gie ne eft ðohto gie RUSHWORTH: earu habbas ge ne gi-heras ne eft ðohtun ge WEST SAXON: & earan & ne gehyrað ne ge ne þencaþ
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The following table summarizes our findings on the inversion of pronouns in the Lindisfarne and Rushworth glosses and compares them to the Early West Saxon translation:

	Topic appears in both Northumbrian and West Saxon texts	Topic appears in Northumbrian only	
Inversions in Northumbrian	5 out of 58	14 out of 82	
Inversions in West Saxon	0 out of 58	_	

Table 4: Pronoun subject inversions in the Northumbrian glosses and West Saxon gospels.

We see from the table that in 10–20% of the cases where the Latin text can be interpreted as having a preposed topic, the pronoun subject inverts with the verb in the Northumbrian glosses. In contrast, the West Saxon text follows the standard Old English pattern, and so inversion of pronoun subjects never occurs following a topic. As the glosses date from late in the period of Scandinavian settlement, it appears that the CP-V2 grammar of the North is old enough to have arisen out of contact with Scandinavian. Of course, an early date for the North's CP-V2 grammar does not guarantee that contact brought it into being. It might, for one thing, actually antedate the arrival of the Scandinavians. Unfortunately, the fragmentary pre-contact Northumbrian texts contain no contexts relevant to the CP/IP-V2 contrast, so this possibility cannot be directly ruled out. Thus, in its present state, the syntactic evidence by itself supports the possibility that contact with Scandinavian was responsible for the northern CP-V2 grammar but is consistent with an earlier date as well. This latter possibility is, however, extremely unlikely in light of the evidence from

<sup>&#</sup>x27;And having ears, do you not hear? And do you not remember?' (Mark 8.18)

the verbal endings outlined above. We feel confident, therefore, in claiming, on grounds of dating as well as of grammatical analysis, that the characteristic features of the V2 syntax of northern Middle English arose out of contact with Scandinavian. More specifically, the trigger for the change was the reduction of the relatively rich Old English agreement system to one with almost no person distinctions, due to imperfect learning of Old English by the large number of Scandinavian invaders and immigrants of the 9th century and later.

#### References

Appel, Rene and Pieter Muysken. 1987. Language contact and bilingualism. London: Edward Arnold.

Bayer, Josef. 1983. COMP in Bavarian syntax. The linguistic review 3:209-274.

Behaghel, Otto. 1932. Deutsche Syntax. Eine geschichtliche Darstellung. Vol. 4. Heidelberg: Winter.

Besten, Hans den. 1985. The ergative hypothesis and free word order in Dutch and German. In Jindřich Toman (ed.), Studies in German grammar, Studies in generative grammar 21, 23–64. Dordrecht: Foris.

Bobaljik, Jonathan and Dianne Jonas. 1993. Specs for subjects: the role of TP in Icelandic. MIT working papers in linguistics 59–98.

Brunner, Karl. 1938. Abriß der mittelenglischen Grammatik. Halle/Saale: Max Niemeyer.

Brunner, Karl. 1965. Altenglische Grammatik. Tübingen: Max Niemeyer.

Cardinaletti, Anna and Ian Roberts. 1991. Clause structure and X-second. Ms., Università di Venezia and Université de Genève. To appear in Levels, principles and processes: the structure of grammatical representations, eds. Wynn Chao and Geoffrey Horrocks. Berlin: Foris/de Gruyter.

Chomsky, Noam. 1986a. Barriers. Cambridge, MA: MIT Press.

Chomsky, Noam. 1986b. Knowledge of language: its nature, origins and use. New York: Praeger.

Chomsky, Noam. 1993. A minimalist program for linguistic theory. In Kenneth Hale and Samuel J. Keyser (eds.), The view from Building 20, 1-52. Cambridge, MA: MIT Press.

Chomsky, Noam. 1995. The Minimalist Program. Cambridge, MA: MIT Press.

Darby, H. C. 1936. The economic geography of England, A.D. 1000-1250. In H. C. Darby (ed.),

- An Historical Geography of England before A.D. 1800. Cambridge, UK: Cambridge University Press.
- Diesing, Molly. 1990. Verb movement and the subject position in Yiddish. *Natural language and linguistic theory* 8:41–79.
- Ebert, Robert Peter. 1986. Historische Syntax des Deutschen II: 1300-1750. Bern: Lang.
- Ekwall, E. 1936. The Scandinavian settlement. In H. C. Darby (ed.), An Historical Geography of England before A.D. 1800. Cambridge, UK: Cambridge University Press.
- Fanselow, Gisbert. 1987. Konfigurationalität. Untersuchungen zur Universalgrammatik am Beispiel des Deutschen. Tübingen: Gunter Narr.
- Frisch, Stefan. 1994. Reanalysis precedes syntactic change: evidence from Middle English. Ms., Northwestern University. To appear in *Proceedings of FLSM 5*. Studies in the linguistic sciences 24.
- Geipel, John. 1971. The Viking legacy. Newton Abbott, England: David & Charles.
- Haan, Germen de and Fred Weerman. 1986. Finiteness and verb fronting in Frisian. In Hubert Haider and Martin Prinzhorn (eds.), Verb second phenomena in Germanic languages, Publications in language sciences 21, 77–110. Dordrecht: Foris.
- Haeberli, Eric and Liliane Haegeman. 1992. Old English word order: evidence from negative concord. Ms., Université de Genève. Submitted to *Journal of linguistics*.
- Heycock, Caroline. 1994. Layers of predication: the non-lexical syntax of clauses. New York: Garland. Penn PhD dissertation.
- Heycock, Caroline and Anthony S. Kroch. 1994. Verb movement and coordination in a dynamic theory of licensing. *The linguistic review* 11:257–283.
- Hulk, Aafke and Ans van Kemenade. 1988. Nominative identification in Germanic and Romance languages. In Peter Coopmans and Aafke Hulk (eds.), Linguistics in the Netherlands 1988, 69-79. Dordrecht: Foris.
- Iatridou, Sabine and Anthony S. Kroch. 1992. The licensing of CP-recursion and its relevance to the Germanic verb-second phenomenon. Working papers in Scandinavian syntax 50:1–24.
- Jespersen, Otto. 1938. The Growth and Structure of the English Language. Garden City, NY: Doubleday.

- Kayne, Richard S. 1994. The antisymmetry of syntax. Cambridge, MA: MIT Press.
- Kemenade, Ans van. 1987. Syntactic case and morphological case in the history of English. Dordrecht: Foris.
- Kiparsky, Paul. 1994. The shift to head-initial VP in Germanic. Ms., Stanford University.
- Kock, E. A. 1902. Three Middle English Versions of the Rule of St. Benet. London: Kegan Paul, Trench, Trübner and Co.
- Kroch, Anthony, Ann Taylor, and Donald Ringe. 1995. The Middle English verb-second constraint:

  A case study in language contact and language change. In Susan Herring, Pieter van Reenen,
  and Lene Schoesler (eds.), Textual parameters. Philadelphia: John Benjamins.
- Kroch, Anthony S. 1989a. The loss of the verb-second constraint in Middle English and Middle French. Paper presented at the 9th Annual Meeting of the Association québécoise de linguistique, Montréal, Québec.
- Kroch, Anthony S. 1989b. Reflexes of grammar in patterns of language change. Language variation and change 1:199-244.
- Kroch, Anthony S. 1994. Morphosyntactic variation. In K. Beals (ed.), *Proceedings of the thirtieth annual meeting of the Chicago Linguistics Society*, Vol. 2, 180–201. Chicago Linguistics Society.
- Kytö, Merja. 1993. Manual to the diachronic part of the Helsinki Corpus of English Texts. Coding conventions and lists of source texts. Second edition. Helsinki: Department of English, University of Helsinki.
- Lightfoot, David W. 1991. How to set parameters: arguments from language change. Cambridge, MA: MIT Press.
- Magnússon, Friðrik. 1990. Kjarnafærsla og að-innskot í aukasetningum í íslensku. Master's thesis, Málvísindastofnun Háskóla Islands.
- Maling, Joan. 1990. Inversion in embedded clauses in Modern Icelandic. In Joan Maling and Annie Zaenen (eds.), Modern Icelandic syntax, Syntax and semantics 24, 71–91. San Diego: Academic Press. First published in Íslenskt mál og almenn malfræði 2:175–193.
- McIntosh, Angus, M. L. Samuels, and M. Benskin. 1986. A Linguistic Atlas of Late Mediaeval English. New York: Aberdeen University Press.
- Morse-Gagné, Elise. 1992. The borrowing hierarchy in the English acquisition of Scandinavian

- pronouns. Ms., University of Pennsylvania.
- Morse-Gagné, Elise. 1993. The grammar of Viking pronouns on both sides of the North Sea. Ms., University of Pennsylvania.
- Mossé, Ferdinand. 1968. Manual of Middle English. Baltimore: Johns Hopkins Press.
- Noreen, Adolf. 1923. Altisländische und altnordische Grammatik. Halle/Saale: Max Niemeyer.
- Penn-Helsinki Parsed Corpus of Middle English. 1994. Anthony Kroch and Ann Taylor, editors.
- Pintzuk, Susan. 1991. Phrase structures in competition: variation and change in Old English word order. PhD thesis, University of Pennsylvania.
- Pintzuk, Susan. 1993. Verb seconding in Old English: verb movement to Infl. *The linguistic review* 10:5–35.
- Pintzuk, Susan and Anthony S. Kroch. 1989. The rightward movement of complements and adjuncts in the Old English of Beowulf. Language variation and change 1:115-143.
- Platzack, Christer. 1988. The emergence of a word order difference in Scandinavian subordinate clauses. McGill working papers in linguistics: special issue on comparative Germanic syntax, 215–238.
- Platzack, Christer and Anders Holmberg. 1989. The role of AGR and finiteness in Germanic VO languages. Working papers in Scandinavian syntax 43:51-76.
- Pollock, Jean-Yves. 1989. Verb movement, Universal Grammar, and the structure of IP. *Linguistic* inquiry 20:365–424.
- Rizzi, Luigi. 1990. Speculations on verb-second. In J. Mascaró and Marina Nespor (eds.), Grammar in progress: a Festschrift for Henk van Riemsdijk, 375–386. Dordrecht: Foris.
- Roberts, Ian. 1993. Verbs and diachronic syntax. Dordrecht: Kluwer.
- Rögnvaldsson, Eiríkur and Höskuldur Thráinsson. 1990. On Icelandic word order once more. In Joan Maling and Annie Zaenen (eds.), *Modern Icelandic syntax*, Syntax and semantics 24, 3–40. San Diego: Academic Press.
- Rohrbacher, Bernhard. 1994. The Germanic VO languages and the full paradigm: a theory of V to I raising. PhD thesis, University of Massachusetts, Amherst.
- Santorini, Beatrice. 1989. The generalization of the verb-second constraint in the history of Yiddish.

  PhD thesis, University of Pennsylvania.

- Santorini, Beatrice. 1992. Variation and change in Yiddish subordinate clause word order. *Natural language and linguistic theory* 10:595–640.
- Sigurðsson, Halldór Ármann. 1990. V1 declaratives and verb raising in Icelandic. In Joan Maling and Annie Zaenen (eds.), *Modern Icelandic syntax*, Syntax and semantics 24, 41–69. San Diego: Academic Press.
- Stenton, Frederick M. 1967. Anglo-Saxon England. Oxford: The Clarendon Press.
- Taylor, Ann. 1990. Clitics and configurationality in Ancient Greek. PhD thesis, University of Pennsylvania.
- Taylor, Ann. 1994. The change from SOV to SVO in Ancient Greek. Language variation and change 6:1-37.
- Thomason, Sarah Grey and Terrence Kaufman. 1988. Language contact, creolization and genetic linguistics. Berkeley: University of California Press.
- Thráinsson, Höskuldur. 1994. Comments on the paper by Vikner. In Norbert Hornstein and David Lightfoot (eds.), Verb movement, 149–162. Cambridge, UK: Cambridge University Press.
- Vikner, Sten. 1990. Verb movement and the licensing of NP-positions in the Germanic languages.

  PhD thesis, Université de Genève.
- Wells, J. E. 1916. A Manual of the Writings in Middle English 1050–1400. New Haven: Yale University Press.
- Whitelock, Dorothy. 1967. Sweet's Anglo-Saxon reader. Oxford: Oxford University Press.
- Zwart, C. Jan Wouter. 1993. Dutch syntax. A minimalist approach. PhD thesis, Rijksuniversiteit Groningen.