Looking high and low for NegP in early English

Eric Haeberli

1. Introduction

The emergence of a secondary negator in the early history of English raises the question as to how such an element is integrated into the syntactic structure. In her analysis, van Kemenade proposes that from the earliest attested stages until the Early Modern period, secondary negation is found in two structural positions, a low one at the edge of the VP and higher one in which the secondary negator can potentially precede subjects. With respect to the high secondary negator, it is argued furthermore that its occurrence depends on verb movement to C and that its distribution with respect to subjects is determined by aspects of information structure.

This paper will explore various issues that arise from van Kemenade's discussion and a somewhat different analysis is proposed. In section 1, I will examine the proposal that there is both high and low negation in Old English and I will conclude that such a distinction indeed seems to be warranted for OE. Pursuing one of the main themes of this volume in section 2, I will then consider whether phenomena related to secondary negation in early English provide evidence for postulating a specific structural projection for negative elements in the clause structure (NegP). Section 3 explores the factors that determine the placement of secondary negation (high vs. low). In section 4, an analysis of the restriction of low negation to V-to-C contexts is proposed. Finally, in section 5, diachronic consequences of the proposals made in the earlier sections are explored.

2. Secondary negation in Old English: high and/or low?

Old English (OE) sees the emergence of a secondary negator (*na*) that is occasionally used in addition to the standard preverbal clitic negator *ne*. Van Kemenade proposes that this new secondary negator can occur in two structural positions, a high one close to the left periphery and a low one

close to the VP. Evidence for the high negation position comes from clauses that have commonly been analyzed as involving verb movement to the C position, i.e. clauses with the negated finite verb in initial position, clauses with initial *þa*/*þonne* ('then') or questions (cf. e.g. Pintzuk 1999). In such clauses, nominal subjects frequently occur to the right of *na* whereas pronominal subjects systematically occur to its left (cf. van Kemenade's Table 3). The former observation concerning nominal subjects suggests that *na* can occur above TP. Evidence for a low placement of secondary negation comes from clauses not involving V-to-C movement (cf. van Kemenade's Tables 4 and 5). In such clauses, nominal subjects systematically precede *na* and the inverted order is very rare. This means that the secondary negator can also occur in a lower position, i.e. below TP. In this section, I will examine the evidence for postulating two positions for secondary negation in OE.

2.1. High secondary negation?

As already noted by Einenkel (1913: 204), the secondary negator *na* can both precede and follow nominal subjects in OE clauses featuring subject-verb inversion whereas it always precedes pronominal subjects. Quantitative confirmation of this observation is provided by van Kemenade in Table 3. In negative-initial root clauses with *na*, nominal subjects follow *na* in nearly 60% of the cases, but subject pronouns never do so. In her counts, van Kemenade excludes clauses where *na* is immediately followed by another adverb or a quantifier and clauses in which *na* seems to be part of a contrastive coordination involving another constituent introduced by *ac* ('but'). However, these restrictions do not substantially alter the picture concerning the distribution of nominal subjects and *na*. If we simply count all cases of what in *The York-Toronto-Helsinki Parsed Corpus of Old English* (YCOE; Taylor, Warner, Pintzuk & Beths 2003)[1] is coded as a negative adverb, there is a slightly lower rate with the secondary negator occurring to the left of nominal subjects, but the frequency does not fall much below 50%.

Thus, there is clearly a substantial number of cases where the subject occurs in a structural position below that occupied by the secondary negator. If we assume that the nominal subject occurs in the inflectional

domain, say SpecTP, *na* therefore seems to be able to occur above TP. However, such a conclusion might be a bit premature. As is well known, nominal subjects of unaccusative verbs can occur in a low position in Old English (cf. e.g. van Kemenade 1997). This is shown for example by the fact that such subjects can occur to the right of the non-finite main verb in a construction with an auxiliary. If we interpret this observation as meaning that subjects of unaccusative verbs can remain in their underlying complement position of VP, the occurrence of such a subject to the right of *na* could simply mean that the secondary negator occupies a VP-peripheral position and an analysis in terms of a secondary negator above TP would not be required.

In order to avoid this possibility, we should restrict the empirical evidence used for the analysis of the placement of secondary negation to clauses with verbs whose subject is not an underlying complement. If *na* regularly occurs before a subject with such verbs, the conclusion that there is a high position for secondary negation seems to be on safer grounds than if it were reached on the basis of all kinds of clauses. As, among verbs taking one argument, the distinction between unaccusative and unergative verbs is not always a straightforward one to make, I propose to consider only verbs which have at least two arguments and whose nominative argument is clearly the external argument.[2] A restrictive search along these lines supports van Kemenade's findings to some extent. 13 clauses have the order '*ne* V–*na*–subject' whereas 14 clauses have the order '*ne* V–subject–*na*'. However, among the 13 clauses with '*na*-subject' order, two could be argued to involve constituent negation (one of the type 'not all N', one with the conjunction *ac* ('but') providing an alternative to the subject).[3] A further six clauses contain an object that has been moved to the left of the subject and *na* (four pronominal objects between the finite verb and *na*, and two topicalized objects). This observation may be relevant for the structural analysis of the subject given the claim made by Alexiadou and Anagnostopoulou (2001) that the external argument of a transitive verb can remain VP-internal in some languages if the object has vacated the VP. Whether this is the case for OE or not would have to be examined in more detail. But even if we were to discard the two potential instances of constituent negation and the six cases with a fronted object, we are left with five clear cases of transitive verbs where both the subject and the object follow *na*. Two illustrations are given in (1).

(1) a. *Ne byrð na se cniht butan intingan his swurd.*
(colsigewZ,+ALet_4_[SigeweardZ]:1212.596)
not carries not the knight without cause his sword
'The knight does not carry his sword without a reason.'

b. *witodlice, Petrus, ne beþearf na seo sawl swa geradre wege & færinge.*
(cogregdC,GDPref_and_4_[C]:36.314.24.4715)
certainly, Peter, not needs not the soul so straight way and journey
'Certainly, Peter, the soul does not need such a straight way and journey.'

It may be interesting to point out that three of the five clear cases of the type shown in (1) are from *Gregory's Dialogues (C)* and the remaining two from Ælfric's letters. Thus, once we focus on examples for which an analysis of the placement of the subject in terms of a specifier in the inflectional domain seems inevitable, the evidence for a high position for *na* is by no means abundant and restricted to two authors. However, given the fact that the use of secondary negation is still a clear minority option in OE and that the number of examples with the order 'subject-*na*' in the same context is small as well, I will conclude, in line with van Kemenade, that '*na*-subject' order does not only arise due to the occurrence of the subject in a low position in OE but indeed also due to placement of *na* in a high one. However, the evidence for this option does not seem to be very robust.

2.2. Low secondary negation?

As van Kemenade's Tables 4 and 5 show, the occurrence of *na* to the left of a nominal subject is extremely rare in clauses not involving V-to-C movement, regardless of verb type. In main clauses, this observation would not be immediately incompatible with a high position for secondary negation. Following Pintzuk (1999), many authors assume that, when the finite verb does not move to C in main clauses, it moves to the inflectional head below CP, i.e. to F in the structure presented by van Kemenade in (2).[4] The order 'Subject–V– *na*' could therefore be derived through movement of the subject to the left periphery of the clause and verb movement to F.

Given that NegP with *na* in its specifier is situated below FP in (2), the rarity of '*na*-subject' orders in main clauses is expected.

However, to assume that *na* is consistently situated in a high position in OE would be problematic. Van Kemenade mentions the occurrence of object pronouns to the left of secondary negation in main clauses as evidence for a low negation position. The postulation of a position for object pronouns between FP and NegP in van Kemenade's structure in (2) might indeed not be desirable and a lower NegP seems to be preferable. A possibly even clearer case for a low position of secondary negation can be made on the basis of the syntax of subordinate clauses. As is well-known, OE exhibits a clause type asymmetry between main and subordinate clauses in the sense that the finite verb tends to occur towards the beginning of the clause in main clauses but towards the end of the clause in subordinate clauses. Furthermore, subject-verb inversion phenomena as found in main clauses are much more restricted in subordinate clauses. These contrasts suggest that there is an asymmetry concerning the distribution of the finite main verb in the two types of clauses. In Haeberli (2005), it is therefore proposed that verbs can occur in C or F in main clauses but that the verb does not move beyond T in subordinate clauses. If this analysis is correct, secondary negation would be expected to always occur preverbally in OE subordinate clauses if there were only the high negation position shown in van Kemenade's (2). However, this expectation is not borne out. Among a bit more than 300 subordinate clauses in the YCOE which contain an overt subject, a finite main verb or auxiliary and the secondary negator *na*, nearly half have the secondary negator after the verb/auxiliary (cf. van Kemenade's examples 30 and 31 for illustrations). In subordinate clauses with nominal subjects, the rate is even higher and the postverbal position of the secondary negator is the majority option.[5] These facts are incompatible with a unique high position above TP for *na* and the postulation of a lower one between TP and VP is necessary. Interestingly, there is one example of a subordinate clause in the YCOE where both the high and the low *na* seem to be realized. This is shown in (2).

(2) *for þan þe se deað hit na ne elcað na.* (coalcuin,Alc_[Warn_35]:406.301)
because the dead it not not delay not
'because the dead do not delay it.'

If we assume that the finite verb in subordinate clauses is in T, the first *na* could be analyzed as occupying the secondary negation position above TP whereas the second *na* would occur in a position below TP. A similar example involving the somewhat less frequent secondary negator *nauht* is given in (3).

(3) *forðæm ic hit no self nauht ne ondræde* (coboeth,Bo:20.47.5.846)
therefore I it not self not not feared
'Therefore I did not fear it myself.'

Having the verb in final position, (3) can be analyzed as involving head-final structure. The subject and object pronouns would then occupy positions in CP and/or in FP within the structure (2) given by van Kemenade. *Self* could be argued to be associated to the lower subject position in TP. *No* thus occupies the secondary negation position above TP, whereas *nauht* occupies the one below TP.

(2) and (3) are isolated examples within the YCOE, and we may have to treat them with some caution. Nevertheless, all the observations above taken together seem to confirm van Kemenade's proposal that *na* can occur in more than one position in OE. In the next section, I will explore the question as to how *na* can be represented in the syntactic structure and, more specifically, whether it is hosted by a NegP.

3. NegP or no NegP?

One of the central issues in the recent literature on the rise of secondary negation in the history of English is its status in the clause structure. As observed by van Kemenade, many authors place the secondary negator in the specfier of a NegP. An alternative but less commonly held view is that the secondary negator has the status of an adverbial. Van Kemenade's position concerning this issue remains somewhat uncertain. For high *na*, two options are presented. In the structures shown in (2) and in (39), *na* is located in a NegP whereas in (20), *na* occupies the specifier of a PrtP, a position it might share with other elements like *þa* and *þonne*. As for low

na, it is described as "an adverb on the left of the VP" and put under a projection XP above VP in the related structure in (35a).

In this subsection, I will examine whether the data related to the secondary negator *na* can be used to make a case for NegP in the clause structure of OE. As van Kemenade observes in her introductory paragraph, "[t]he concept of NegP provides an appealing and insightful framework for understanding those stages of the history of English where clause negation features two negative markers: *ne* and some form of secondary negation, and for the shifting distribution of these two negative markers over the history of English". According to this observation, the emergence of the secondary negator *na* in OE would best be analyzed in terms of a NegP. Although the presence of a head (*ne*) and a non-head (*na*) related to negation could indeed be easily captured by saying that the head occupies the head position of a NegP and the non-head occupies its specifier, this would be by no means the only possibility. *Ne* could be analyzed as the spell-out of a negative feature on some other functional head, whereas *na* could be analyzed as some kind of an adverb.

For many empirical aspects of the syntax of negation and its development, the two options might perform equally well. Very often, the choice is therefore simply a theoretical one. Clause structures inspired by the Minimalist Program might do away with NegP in the same way that AgrP has been discarded, whereas cartographic approaches postulate very rich clause structures in which NegP would no doubt have its place. The task is then to identify phenomena for which the choice of analysis actually does matter. For example for present-day English, it can be argued that, if *not* simply had the status of an adverb, its presence should not trigger *do*-support because other negative adverbs like *never* do not require *do*-support, either. But what about earlier stages of English? Are there phenomena that would also allow us to identify the presence of a NegP?

Haeberli & Ingham (2007) indeed argue that there is empirical evidence for the presence of a NegP in the clause structure of Early Middle English (EME) and that this evidence comes from the placement of the secondary negator. The basic idea is that, if the secondary negator had the status of an adverb, its distributional properties should correspond to those of adverbs. On the other hand, if the secondary negator had distinctive distributional properties, it would be plausible to attribute to it a specific position in the clause structure that we could label SpecNegP. The evidence

that Haeberli & Ingham identify as relevant for the postulation of NegP in EME concerns the interaction of objects with adverbs and secondary negation. In clauses with a finite verb and a postverbal secondary negation, nominal objects systematically follow the secondary negator. In the EME data considered by Haeberli & Ingham, the order 'V–*not*–O(DP)' can be found 45 times in main and subordinate clauses, whereas there is not a single instance where the object would precede the secondary negator in this context (2007:14). A similar but slightly less robust observation can be made for clauses with a finite auxiliary. The order 'Aux–*not*–O(DP)–V' is found 8 times, but the order 'Aux–O(DP)–*not*–V' does not occur. The systematic absence of the 'O(DP)–*not*' order in these contexts suggests that the secondary negator is placed too high for the object to move across it. The situation is considerably different with adverbs. In 369 clauses with a finite verb and a postverbal adverb, nominal objects precede the adverb in 113 (30.6%) cases and follow it 256 times (69.4%) (2007:12). Pre-adverb position is even more common in auxiliated clauses with objects preceding the non-finite main verb. 'Aux–O(DP)–adverb–V' occurs 25 times (59.5%) whereas the order 'Aux–adverb–O(DP)–V' is found 17 times (40.5%) (2007:13). The range of adverb types that follow the object is fairly varied. Given this sharp contrast between secondary negation and adverbs, Haeberli & Ingham conclude that the secondary negator is not simply an adverb in EME but that it occupies a position specifically related to negation (Spec, NegP) which a nominal object cannot move across.

The question that we may raise then is whether OE *na* had a similarly distinctive status with respect to nominal objects as the EME secondary negator. The answer to this question seems to be negative. The relevant figures are given in Table 1.

Table 1. **Secondary negation, tensed verb/auxiliary and nominal object in YCOE**

	Root clauses	Subordinate clauses	Total O Neg	Total Neg O
S V O Neg	3	0	3	

S V Neg O	19	13		32
S Aux O Neg V	2	0	2	
S Aux Neg O V	11	5		16
			5 (9.4%)	48 (90.6%)

Although the evidence is not overwhelming, the figures in Table 1 suggest that nominal objects do not systematically occur to the right of the secondary negator in OE. The 5 out of 53 examples found in OE contrast with the 0 out of 45 in EME. As in other cases involving *na*, questions as to whether *na* truly functions as an independent secondary negator rather than as a constituent negator may arise in these examples. However, a note of caution seems to be necessary here. Even if we get a constituent negation interpretation, it is not certain whether syntactically we do not have a case of sentential negation. In OE, this is suggested by the presence of the preverbal negative clitic *ne* in these examples. Similarly, in a present-day English sentence like *John didn't buy newspapers but books*, the presence of *but* suggests a constituent negation interpretation for the object DP in the first part of the sentence, but the occurrence of *do*-support nevertheless seems to make an analysis in terms of sentential negation necessary at a syntactic level. Thus, it might be delicate to simply eliminate clauses like (4a) which might have a constituent negation interpretation from our consideration. However, even if we did so, we are still left with two clauses with 'O-Neg' order for which a constituent negation analysis seems unlikely (4b, c).[6]

(4) a. *ac þæt ne dereð elles* ***þam na*** *þe swyðor þe þa ðenunga underfoð…* (cowulf,WHom_8c:49.612)
but that not hurts otherwise that not the more who the service receives
'But that does not hurt that one more who receives the service…'

b. *He ne andwyrde* ***ðam wife*** *æt fruman* ***na*** *for modignysse.* (cocathom2,+ACHom_II,_8:68.45.1376)
He not answered the woman at first not for pride

'At first, he did not answer the woman out of pride'

c. *Þa ða awyrgdan gastas, þe ðær stodon … ne mihton **ða oðre men na** geseon*,
(cogregdC,GDPref_and_4_[C]:40.326.3.4904)
Then the cursed souls, who there stood … not could the other men not see
'Then the cursed souls who stood there … could not see the other men,'

That nominal objects can precede secondary negation is also confirmed by clauses where both the secondary negator and the full DP object precede the finite verb, i.e. in clauses that would traditionally be analyzed as involving head-final structure. Among 28 main and subordinate clauses with *na* and a nominal object preceding the finite verb, 8 (28.5%) exhibit the order 'O-Neg'. Most of these cases do not seem to involve constituent negation. Two illustrations are given in (5).

(5) a. *ðæt he **ðæt good na** ne dyde ðær he hit for ðæm ege dorste forlætan*. (cocura,CP:37.265.10.1724)
that he that good not not did where he it for the fear dared abandon
'that he did not do that good deed when he dared to abandon it for fear.'

b. *he **þæt no** mid weorce ne gefremme*;
(cobenrul,BenR:2.11.17.178)
he that not with work not accomplish
'he shall not accomplish this with work;'

Finally, in clauses involving V-to-C movement with a finite verb or auxiliary, nominal objects also occur to the left of *na* in six cases. However, all of these examples raise issues of constituent negation, as the two cases in (6) show (*lang* in 6a, *to medsceatte* in 6b).

(6) a. *Ne forlet ure Drihten **þysne middangeard na** leng buton lareowum þonne twa hund wintra,*
(coblick,HomS_21_[BlHom_6]:71.103.897)

Not leaves our Lord this world not longer without teachers than two hundred winters
'Our Lord does not leave this world without teachers more than 200 years,'

b. *Ne onfeng he **ðæt na** to medsceatte, ac forðon þe he wæs þyr me gehalsod.* (comart3,Mart_5_[Kotzor]:Se27,A.16.1877)
Not accepted he that not as payment, but because he was through me entreated
'He did not accept that as payment, but because he was entreated in my name.'

In conclusion, the evidence for 'O-Neg' order with nominal objects in OE is not abundant, but it nevertheless suggests that this order is not entirely excluded. Given that various types of adverbs can also occur to the left and to the right of nominal objects in OE, the object data do not allow us to argue for the presence of a dedicated position for negation in the clause structure of OE in the same way that this is possible for EME. Instead, the secondary negator *na* may simply have the status of a regular adverb.

Phenomena related to object pronouns also suggest that the syntax of secondary negation in OE is not regulated as strictly as in EME. In clauses with a finite main verb followed by a pronominal object and a secondary negator, the pronominal object always precedes the secondary negator in EME (0 instances of the opposite order out of 38; Haeberli & Ingham 2007:16). In OE, however, we can find orders of the type 'subject–finite verb–*na*–object pronoun'. Out of 12 cases with a postverbal object pronoun and a postverbal secondary negator, 4 have the object in a position following negation. This is shown in (7):

(7) a. *ac he ne sette **na hi** on his setle*
(cocathom1, +ACHom_I,_37:497.12.7330)
but he not put not them on his see
'but he did not put them on his see'

b. *þæt he ne geceas **na him** wif to meder.*
(cocathom2,+ACHom_II,_1:4.37.28)
that he not chose not him woman to mother.
'that he did not choose a woman as a mother for himself.'

The flexibility in the distribution of object pronouns in OE contrasts with the rigidity in this domain in EME and thus provides further support for the proposal that the OE secondary negator *na* is not hosted by a NegP that has a rigidly fixed position in the clause structure.

Haeberli & Ingham (2007) use object data to argue for a low NegP in EME. The observations made above may therefore simply mean that OE does not have a low NegP. But given the conclusion reached in the previous subsection that there is also a high secondary negation position, there still might be the possibility that NegP is encoded in a high structural position, as suggested by van Kemenade's tree in (2). Following the same kind of reasoning as above, we would therefore want to find distributional evidence that clearly distinguishes secondary negation from adverbs. However, the observations made by van Kemande and those made in Haeberli (2000) suggest that no such contrast can be identified. In Haeberli (2000), it is shown that adverbs occur to the left of nominal subjects in V-to-C contexts. This holds in particular also for transitive verbs with two nominal arguments as two examples in Haeberli (2000:117) involving the adverbs *swa þeah* ('however, nevertheless') and *syððan* ('afterwards') show. Furthermore, van Kemenade suggests that *þa/þonne* ('then') also behave like *na* in being able to occur in a position to the left of nominal subjects and that the order of the two elements is not fixed when they co-occur. It therefore seems difficult to identify a structural position in the higher inflectional domain that is specifically dedicated to negation. Once again, it would therefore be sufficient to treat *na* as an adverb.

In conclusion, I have not been able to find empirical evidence for the occurrence of NegP in OE based on the behaviour of the emerging secondary negator. However, I have to leave it open here whether other evidence could be used in favour of postulating a NegP in the clause structure of OE or whether cross-linguistic and theoretical considerations force us to postulate such a projection. I will also not be able to pursue the follow-up question based on the conclusion reached here, namely how adverbs (and, hence, *na* if it is to be treated as an adverb) are best represented in the syntactic structure of OE. Instead, I will turn to an additional issue that van Kemenade's "high-low" analysis of OE secondary negation raises.

4. *Na*: When is it high, when is it low?

Having established that *na* can occur in a high and a low position in OE but that these positions do not correspond to a NegP in a clear way, we may wonder now what determines the use of the low and the high negation position in OE. Are there factors that favour the use of one as opposed to the other? Van Kemande provides a fairly precise proposal in this respect: "The first use [low *na*] is attested in main clauses without inversion of subject and finite verb, and is almost categorical in subclauses. The second use [high *na*] is restricted to root clauses with V to C movement" (section 1). Two issues based on this statement seem to be worth examining further: (i) Is high *na* available in subordinate clauses (cf. the hedge "almost categorical" use of low *na*); (ii) Is low *na* not available in V-to-C contexts (cf. "main clauses without inversion" for low *na*)?

Let us start by considering *na* in subordinate clauses. I have identified 8 instances of *na* occurring to the left of a nominal subject in a subordinate clause in the YCOE, so these would be potential candidates for a high placement.[7] However, none of them conclusively involves a high negator. Consider for example van Kemenade's (33b), which she considers as a potential illustration of high negation in a subordinate clause:

(8) *Forðæm ðe* ***na*** *se ðorn ðære gitsunga ne wyrð forsearod on ðæm helme*,
(cocura,CP:45.341.9.2292)
Because that not the thorn of greed not becomes withered in the crown
'Because the thorn of greed does not wither in the stem'

As (8) is a passive clause, the only argument in the clause, *se ðorn ðære gitsunga*, may occur in an underlying object position low in the structure. Such an analysis would be possible if we assume that (8) involves a head-final structure with Verb Raising of the participle and extraposition of the PP. The result would be that a low *na* at the edge of the VP could precede the VP-internal argument.[8] Similar analyses would be conceivable for five other examples: Two involve copula *be* and three contain verbs that can be considered as unaccusative (*befeallan* 'to fall', *modigan* 'to become proud', *libban* 'to live').

This leaves us with two examples. One of them involves a one-argument verb that would generally be considered as unergative rather than as unaccusative (*wepan* 'to weep'). And the second one, van Kemenade's example (33a), involves a transitive verb:[9]

(9) *þæt hy* ***na*** *sunne bescine* (cocura,CP:45.341.9.2292)
that it not sun beshines
'that the sun does not shine on it'

The internal argument of the verb has moved to the left, and we therefore find a context that, as discussed in section 1.1, would allow a VP-internal subject at least from a cross-linguistic point of view (cf. Alexiadou and Anagnastopoulou 2001). If that option is available in OE, (9) could also be analyzed in terms of low negation. By analogy, the subject of an unergative verb like *wepan* would also be expected to be able to stay within the VP and the same conclusion with respect to secondary negation would hold for that case. However, I will have to leave it open here whether there is independent evidence supporting the hypothesis that subjects of unergative and transitive verbs can be licensed in a VP-internal position in OE.

We are therefore left with at most two and possibly no examples for which a high secondary negator has to be postulated in OE subordinate clauses. This will not allow us to entirely remove van Kemande's hedge ("almost categorical" use of low negation in subordinate clauses). But no further examples from main clauses could be added to this total, because in main clauses of the type 'S-V…', the occurrence of a secondary negator in pre-subject position could always be related to fronting to CP, a process that is clearly attested in early English (cf. e.g. Haeberli & Ingham 2007:10). The possibility that high negation is restricted to cases of subject-verb inversion therefore seems to be worth exploring within a theoretical account of the placement of secondary negation in OE. If we assume furthermore that subject-verb inversion with negative verbs involves V-to-C movement, we can be more specific and suggest, as van Kemenade does, that the presence of high negation is dependent on V-movement to C.

Before considering the theoretical implications of this conclusion, let us turn to the second issue that van Kemenade's proposals concerning the use of high and low negation raises. In the citation given above, the use of

low negation is mentioned only in connection with main clauses without inversion and subordinate clauses. But what about clauses with inversion, i.e. V-to-C contexts? As the discussion in section 2.1 has shown, it is rather difficult to find conclusive evidence for a high secondary negation in V-to-C contexts in OE. The corollary of this is that a low *na* could account for a large majority of examples, i.e. all clauses with *na* in a position following the subject (388 out of the 446 cases included in Table 3), and also all clauses involving an unaccusative verb and a pre-subject secondary negator.

At first sight, it seems to be difficult to rule out low secondary negation in V-to-C contexts from a theoretical point of view. If we assume that OE has systematic V-to-T movement, a derivation with V-to-C and without V-to-C movement should look identical at least up to TP. The mere occurrence of a further V-movement step beyond TP should not be able to interfere with low placement of *na* in any way. So the minimal assumption from a theoretical point of view would be that low *na* is available in V-to-C contexts but that, optionally, *na* can be inserted in a higher position as well.

The question we may raise then is whether there are empirical reasons to assume that secondary negation should be restricted to the area above TP in V-to-C contexts. Here, van Kemenade's information structure (IS) considerations could be relevant. If a clear IS pattern emerged that could be maintained only under the assumption that there is a high secondary negator in V-to-C contexts, that assumption would receive considerable support despite its theoretically unexpected status. However, with van Kemande's IS account in its current form, I am not entirely convinced that (a) a sufficiently clear-cut IS pattern emerges and (b) that what emerges could not be dealt with through a combination of high and low negation in V-to-C contexts.

Given the wide range of word order patterns found in OE, it seems very attractive to turn to IS in order to discover potential factors that may influence the choice of one word order over another one. The line of investigation that van Kemenade and others propose in this direction therefore seems promising. However, I find the specific implementation of this research programme in van Kemenade's paper somewhat unsatisfactory. What seems to be missing in particular are very precise definitions of the IS factors that are taken into account. The general distinction that van Kemenade makes seems to be a fairly straightforward

and plausible one: Elements to the left of *na*, *þa* and *þonne* are discourse-given whereas those to the right are discourse-new or focused. But specific applications of these notions then look a bit problematic. In connection with example (26) where the subject precedes *na* and should therefore be discourse-given according to van Kemenade's proposal, it is argued that a demonstrative can be considered as discourse-given due to its being the antecedent of a postposed relative clause. However, the referent of this complex DP does not seem to have been mentioned in the earlier discourse, so it would not typically be characterized as discourse-given. In section 3.2.2 focusing on subjects that occur after *na* and should therefore be discourse-new or focused, it is suggested that, even though certain subjects are discourse-given, this property becomes irrelevant for their placement once an object pronoun is present. But no explanation is given as to why this should be the case. Furthermore, for some reason, discourse givenness also seems to be irrelevant for the placement of generic subjects and subjects referring to a unique entity (God, the holy Father, the holy Ghost, the soul). Some subjects of this type follow *na* although they have been mentioned earlier in the discourse. Finally, two proper names and a definite DP that have previously been mentioned are also considered as suitable in the low position under the assumption that no specific reference to the discourse antecedent is made. It remains unexplained, however, what criteria can be used to make such a judgment or why it should be relevant as the occurrence in the previous discourse should be sufficient to qualify something as discourse-given. Given that these evaluations of what counts as discourse-given or not are not justified in any way nor independently supported by any references to the literature on IS, they have the flavour of *post hoc* attempts to save a generalization.

The IS literature provides other distinctions that could be worth exploring in connection with the different subject positions van Kemenade identifies. In their analysis of the placement of objects in OE, Taylor and Pintzuk (2009) consider hearer status (new, anchored, accessible, given) in addition to discourse status (mention, no mention). They conclude that, when other factors are taken into account, only hearer status has a significant effect on the distribution of the object but not discourse status. However, even if other IS categories were used for the analysis of the distribution of subjects and if these categories were applied with neutral coding independent of any theoretical expectations, the most likely

outcome would probably be that the pattern is not entirely sharp, contrary to what van Kemenade tries to establish. Instead, we may simply have IS tendencies that influence the choice of one word order over another, but additional factors (e.g. length, type of verb etc.) may play a role as well. Thus, the generalization to be made may rather be that discourse-given material (or something of this type) *tends* to occur high in the structure and, hence, to the left of *na* whereas discourse-new material (or something of this type) *tends* to be low and to its right.

Let us then return to our question whether V-to-C contexts necessarily require a high secondary negator for this generalization to be accounted for. For given subjects, the answer is clearly negative. If we assume that given subjects tend to move to the highest subject position, they would end up to the left of *na* regardless of whether it occurs above TP or below TP. As for non-given/focused subjects, there are two scenarios to consider. If certain subjects are licensed VP-internally, it could be argued that VP-internal placement is related to discourse-newness or focus, and this position would be to the right of *na* even with low *na*. The only scenario that could potentially be problematic for an analysis in terms of the availability of low *na* in V-to-C contexts is the one that involves subjects that have to leave the VP (i.e. at least subjects of transitive verbs with a nominal object, but possibly subjects of transitives more generally and unergatives). Such subjects might be expected to be discourse-new and nevertheless occur to the left of *na*.

However, it is not certain that we really face a problem here. First, if the configuration 'SU(new/focus)-*na*' does not exist at all, we might argue that IS can also influence the choice of the insertion site of *na* and not only the placement of the subject. In other words, if there is a general IS tendency for new/focused elements to occur towards the right and we have a choice of inserting another item either to the left or to the right of the new/focused element, then insertion to the left might be chosen so that the new/focused element can occur in the rightmost position. The order 'SU(new/focus)-*na*' would therefore be avoided. An alternative conclusion may be that such a configuration is actually not impossible. One example that could be relevant in this context is given in (10):

(10) *Ne forseon ða gelæredan na ða ungelæredan*,

(cowulf,WHom_10a:45.805)
Ne neglect the learned not the unlearned
'The learned do not neglect the unlearned,'

The definite subject *ða gelæredan* seems to be of the generic type here rather than related to a referent already mentioned in the discourse. Such subjects are generally claimed by van Kemenade to occur to the right of *na*, which is not the case here.

Whatever the correct conclusion may be, it is sufficient for our purposes to observe that IS considerations do not seem be incompatible with the hypothesis that low *na* is also available in V-to-C contexts. The bottom line would then be that low *na* is present in all syntactic contexts in OE whereas high *na* is restricted to V-to-C contexts. The question that arises then is why such a restriction on high secondary negation should hold, an issue we will pursue in the next section.

5. The restriction on high secondary negation

To account for the restriction of high *na* to V-to-C movement contexts, van Kemenade proposes that the occurrence of *na* in a high position is related to an unvalued Neg feature on *na* that is valued by a negative operator in CP. However, for a full analysis, more would have to be said. First, the occurrence of a negative operator in CP does not guarantee V-to-C movement. Within the Minimalist framework on which the concept of feature valuation is based, it would indeed be conceivable that a negative operator could occur in CP without triggering V-to-C movement. Thus, something would have to be said on the connection between the negative operator in CP and verb movement to C. Secondly, it is not immediately clear why high *na* should have to be licensed by an even higher operator. In non-V-to-C contexts, *na* is licensed in a low position, somewhere at the periphery of the VP. The minimal assumption for low *na* would be that it has the same feature content as high *na*. In other words, low *na* would be expected to have an unvalued Neg feature as well. Hence, there would have to be another negative element in the clause structure that can value the Neg feature of low *na*. The question that arises then is why this negative element could not also license (i.e. value the unvalued Neg feature of) high

na. At first sight, it would indeed seem that whatever licenses low *na* should also be able to license high *na* and that therefore high *na* should be just as suitable for non-V-to-C main clauses and for subordinate clauses as it is for clauses involving V-to-C movement. Here, I will try to address these issues and make the correlation between V-to-C and high *na* somewhat more precise by developing some proposals made by Haegeman and Lohndal (2010) for the analysis of Negative Concord languages.

Recent analyses of Negative Concord within an Agree-based Minimalist framework suggest that Negative Concord as found in early English is the result of Multiple Agree, a process whereby one interpretable negative feature values (possibly multiple) uninterpretable negative features (cf. e.g. Zeijlstra 2004). Haegeman and Lohndal (2010) show that such an approach is problematic for the analysis of Negative Concord in West Flemish and they therefore propose an alternative analysis based on binary agree. The idea here is that Agree relations are always established between two elements. In other words, if there is a sequence of features, Agree operates in pairs. Agree is defined as follows (Haegeman & Lohndal 2010: 196)

(11) Agree: α Agrees with β if α c-commands β, α and β both have a feature F and there is no γ with the feature F such that α c-commands γ and γ c-commands β.

Apart from the required structural configuration in terms of c-command, (11) introduces a locality condition on Agree. A further assumption Haegeman and Lohndal make is that Agree can involve two uninterpretable features and that, in that case, it is the lower one that is deleted and the higher one that survives.

If we now consider negation in Negative Concord languages, the hypothesis of a null sentential negative operator with an interpretable negative feature and negative consituents with uninterpretable negative features is adopted (cf. also e.g. Zeijlstra 2004). The process of binary Agree in Negative Concord contexts is illustrated in (12), with strike-through indicating that only one of the [*u*Neg] features remains after Agree (Haegeman & Lohndal 2010: 198).

(12) a. [C [*u*NEG]] [D [*u*NEG]] → Agree

b. [C [*u*NEG]] [D [~~*u*NEG~~]] Merge [B [*u*NEG]]
c. [B [*u*NEG]] [C [*u*NEG]] [D [~~*u*NEG~~]] → Agree
d. [B [*u*NEG]] [C [~~*u*NEG~~]] [D [~~*u*NEG~~]] Merge [A [*i*NEG]]
e. [A [*i*NEG]] [B [*u*NEG]] [C [~~*u*NEG~~]] [D [~~*u*NEG~~]] → Agree
f. [A [*i*NEG]] [B [~~*u*NEG~~]] [C [~~*u*NEG~~]] [D [~~*u*NEG~~]]

Bearing these assumptions in mind, let us now return to the question of how the restriction on *na* to V-to-C contexts could be accounted for. The basic intuition underlying my analysis will be that the presence of high secondary negation might be related to whatever property in the C-domain is responsible for negative V1 (Neg V1) in OE. As negation seems to be a trigger of V-to-C movement in OE, it would be plausible to say that the presence of high *na*, which is dependent on V-to-C, has negation in C as its ultimate source. As discussed by Ingham (2005a), within a Minimalist framework, Neg V1 in early English is best captured by postulating an uninterpretable negative feature in the CP-domain. In an Agree-based system, this negative feature would have to associated to an additional EPP-type or affixal feature that triggers the movement of the verb. Furthermore, I propose the following additional negative elements for an OE negative clause with a secondary negator:

(a) A null operator with an interpretable negative feature (cf. above).
(b) An uninterpretable negative feature related to the preverbal clitic negator *ne*. Given the uncertain status of NegP in the clause structure of OE (cf. section 2), I will simply assume here that this negative feature is situated on the T head.
(c) An uninterpretable negative feature on *na*.

An issue that I have left open in the above list is the structural position of the null sentential negative operator. Haegeman & Lohndal remain relatively vague in this respect, but in one representation of a West Flemish subordinate clause (their example 38) they situate it to the immediate right of the subject. I will follow this proposal and assume that the default position of the null negative operator is right below the lower inflectional subject position, i.e. right below TP in OE. As for low *na*, I propose that it is between the null operator and VP.

Given these hypotheses, an OE non-V-to-C negative clause with a low secondary negator has a distribution of negative features as shown in (13).

(13) T [*u*NEG] OP[*i*Neg] *na* [*u*NEG]

When this structure is derived, two binary Agree relations are established, first the one between OP and *na* and then the one between T and OP. As a result, both uninterpretable features can be deleted and we obtain a grammatical result. But what would happen if the secondary negator occupied a high position above TP? The distribution of features in such a case is illustrated in (14):

(14) *na* [*u*NEG] T [*u*NEG] OP[*i*Neg]

Once T is merged, an Agree relation between T and OP is established and the uninterpretable NEG feature on T is deleted. Next, *na* is merged and it tries to establish an Agree relation to delete its [*u*NEG] feature. The deleted [*u*NEG] feature on T cannot Agree with [*u*NEG] on *na* any more. So what about [*i*NEG] on OP? Adopting a proposal made by Chomsky (2001), I will assume that [*u*NEG] on T, although having been marked for deletion, remains visible up to the next strong phase level (i.e. CP).[10] Remaining visible, [*u*NEG] on T acts as an intervenor for the purposes of locality as defined in (11). [*u*NEG] on *na* can therefore not establish an Agree relation with OP. As no higher [*u*NEG] feature is available, either, [*u*NEG] on *na* cannot be deleted and we are left with an uninterpretable NEG feature by the time the derivation reaches LF. The structure in (14) is therefore ruled out.

Let us now consider V-to-C contexts. As suggested earlier, we may assume that in such structures, C also carries a [*u*NEG] feature. In addition, I propose that the presence of a negative feature on C also allows the null negative operator to be merged in a high position, possibly within an extended CP-domain or right below CP.[11] We therefore get the following configuration with a high secondary negator:[12]

(15) C [*u*NEG] OP[*i*Neg] *na* [*u*NEG] T [*u*NEG]

This structure leads to a grammatical result. First, *na* and T enter an Agree relation and [*u*NEG] on *na* survives whereas [*u*NEG] on T is marked for deletion. Then, OP and *na* Agree and [*u*NEG] on *na* is deleted. Finally, an Agree relation between C and OP is established and [*u*NEG] on C can be deleted. All uninterpretable NEG features are thus deleted. Note, finally, that the configuration in (15) would also lead to a grammatical result if the secondary negator occurred in the low position, i.e. below T.

In conclusion, our discussion has shown that an extension of Haegeman and Lohndal's (2010) framework allows us to restrict the occurrence of a high secondary negator to V-to-C contexts if we make the hypothesis that it is only in such contexts that the CP domain hosts negative features in OE. This analysis has an important diachronic implication, however. We would expect high negation to be possible only as long as there is an uninterpretable NEG feature on C, i.e. as long as there is Neg V1. The validity of this expectation will be examined in the next section.

6. Diachronic developments

In the final part of her paper, van Kemenade explores the diachronic development of secondary negation. Her main conclusion is that, although its phonetic form changes (OE *na* being replaced by *not* in Middle English), the syntax of the secondary and soon-to-be primary negator remains fairly stable throughout the Middle English period. As in OE, nominal subjects can occur to the left or to the right of the secondary negator in inverted main clauses in Middle English. Van Kemenade therefore proposes that Middle English still has the high/low contrast with respect to secondary negation in that inverted (V-to-C) main clauses have *not* in a position above TP whereas other clauses have *not* in a low position. Furthermore, it is assumed that the placement of a nominal subject still depends on its IS status in that the secondary negator continues separating discourse-given material from focused material. There is one major innovation that van Kemenade observes in the syntax of *not* in Middle English though, which is the emergence of its use as a head in the fifteenth century. The main evidence for this comes from 'secondary negator–subject pronoun' orders in inverted main clauses, an order which was not possible in OE and EME.

Let us now consider the implications of these observations for the conclusion reached in the previous section, namely that high *not* should be lost when Neg V1 is lost. First, we have to establish when Neg V1 is lost in the history of English. On the basis of Old and Middle English religious prose texts, Ingham (2005b) concludes that "Neg V1 had gone out of use by the second half of the fourteenth century". This conclusion is to a large extent confirmed by Ingham's (2005a) study of verse material. Ingham observes a steady decline in Neg V1 from earlier thirteenth century manuscripts to late fourteenth century manuscripts: 81.8% Neg V1 in the earlier thirteenth century,[13] 61.5% in the later thirteenth century, 22.0% in the earlier fourteenth century, and 19.2% in the later fourteenth century. Although the frequency of Neg V1 at the end of the fourteenth century remains non-negligible in the verse texts, the possibility of an increased use of archaic features in this type of material means that Neg V1 has probably become at best a very marginal feature by then.

We can now compare this finding to van Kemenade's findings concerning the placement of *not*. Van Kemenade examines texts from the Penn-Helsinki Parsed Corpus of Middle English (PPCME2, Kroch and Taylor 2000), which is divided into four periods: m1 (1150-1250), m2 (1250-1350), m3 (1350-1420), and m4 (1420-1500). Period m1 (EME) can be dealt with straightforwardly. The word order '*not*-subject' can still be found in this period. As Haeberli & Ingham (2007:20) observe, many cases of this type involve verbs that can be argued to lack an external argument and they might therefore have a subject in a low position and, hence, *not* in a low position as well. However, there are some examples that cannot be dealt with in this way, which suggests that *not* can at least occasionally occur in a high position in EME inverted main clauses. According to the proposals made in the previous section, we would therefore expect Neg V1 to be possible as well. This expectation is borne out. Ingham's (2005a, b) studies show that Neg V1 is still frequently attested in EME.

The end of PPCME2 period m2 corresponds to the period when, according to Ingham, Neg V1 is on its decline. However, if we consider a text from the end of the PPCME2 period m2, the *Earliest English Prose Psalter* (*circa* 1350), we notice that Neg V1 still occurs relatively frequently in this text. Thus, the occurrence of '*not*-subject' orders in period m2 is in line with the hypothesis formulated in section 4 that high negation is related to Neg V1.

From PPCME2 period m3 onwards, we would not expect Neg V1 to remain productive any more according to Ingham's observations. This is indeed to a large extent borne out by the PPCME2 data. There are generally only isolated examples of negative clauses with the finite verb/auxiliary in initial position in the PPCME2 periods m3 and m4. Nevertheless, the order '*not*-subject' does not disappear entirely. Some cases might again be amenable to an analysis in terms of a low subject position and low negation, but '*not*-subject' order can sometimes still be found with transitive verbs and two nominal arguments, i.e. cases where the subject is unlikely to occur within the VP. The question that arises therefore is whether the data from periods m3 and m4 are incompatible with the proposed link between high negation and Neg V1.

I would like to argue that the answer is negative. As van Kemenade observes, *not* develops the option of being used as a head towards the end of the Middle English period. This can be clearly seen in period m4 where *not* can occasionally precede a pronominal subject in inverted clauses (cf. van Kemenade's Table 8). A head analysis would therefore be equally possible for the few '*not*-DP subject' cases reported in van Kemenade's Table 6 for period m4. For *not* as a head, two analyses would be possible. Either *not* is merged as the head of a NegP, or alternatively *not* is merged as an XP and then cliticizes on the closest higher head. With both scenarios, *not* could be merged below TP and then attached to the verb as it moves up the inflectional domain. A high negation position would therefore not be necessary any more to account for '*not*-subject' orders in this period.

What remains to be examined now is PPCME2 period m3. For this period, no examples can be found in which *not* precedes a subject pronoun.[14] Do we therefore have to conclude that *not* as a head is not available yet and that therefore all orders of the type '*not*-subject' have to be analyzed as involving a high negator? There is some evidence suggesting that such a conclusion is not necessary. Another type of subject apart from pronouns that seems to occur systematically to the left of secondary negation in OE and EME are demonstratives. This is in line with van Kemenade's IS proposal according to which discourse-given elements tend to precede secondary negation. What is interesting with respect to PPCME2 period m3, however, is that we can find several instances of demonstratives to the right of *not*. The relevant examples are given in (16).

(16) a. *Is nat this a cursed vice?* (CMCTPARS,306.C1.734)
'Isn't this a sinful vice?'
b. *nys nat that a myry thyng and a joyful?* (CMBOETH,429.C2.45)
'Isn't that a merry and joyful thing?'
c. *and ellys hadde not þis kyng trowyd*; (CMWYCSER,306.1410)
'and otherwise this king would not have had faith'

(17) shows another clearly discourse-given element to the right of *not*:

(17) when þe net was ful of many grete fyschys, was not þe net broken
(CMWYCSER,242.347)
'When the net was full with many big fish, the net was not broken.'

Given what seem to be unexpected word orders compared to the OE and EME data, examples like (16) and (17) could be analyzed as first clear signs of the emergence of *not* as a head. Other examples with *not* in a position preceding the subject could then of course also be argued to involve *not* as a head cliticized to the verb rather than merger of *not* in a high position. In fact, the approach pursued here may even provide an account of why *not* developed its head status when it does and how this use spreads. Until around 1350, '*not*-subject' orders in inverted main clauses could be derived through a high negator because V-to-C triggered by negation in C (cf. example 15). In the course of the fourteenth century, Neg V1 becomes more and more marginal, and language learners start postulating a grammar without Neg V1. However, '*not*-subject' orders may still occur in their input, and they accommodate such orders by attributing optional head status to *not*. Initially, *not* may simply be used as a head with nominal subjects to maintain the IS tendencies that applied earlier, i.e. in particular to position focused elements to the right of negation. But over time, its use is generalized to other contexts such as demonstratives in PPCME2 period m3 and finally pronouns in period m4.

Given the above observations, the correlation between high negation and negative V-to-C proposed in the previous section can be maintained as periods m3 and m4 can be analyzed exclusively in terms of a low negation. One additional issue remains to be addressed, however. Van Kemenade argues that, if negation were able to occur in a low position in inverted main clauses in Middle English, it should allow object shift, i.e. the occurrence of an object pronoun to its left. According to van Kemenade,

this expectation is not borne out. However, the evidence provided in support of this conclusion is problematic as it is based on the figures in her Table 6. The problem with Table 6 is that, according to my own searches in the PPCME, it seems to include clauses with finite auxiliaries although it is well known that such clauses do not allow object shift. The surface word order is therefore generally 'Aux-subject-*not*-V-object pronoun' and such examples are inconclusive with respect to high or low placement of negation at least from the point of view of the placement of the object pronouns. Inverted main clauses with a finite main verb rather than a finite auxilary are relatively rare, but in the data I considered we nevertheless get 'object pronoun–*not*' orders in all Middle English periods in the PPCME2. For period m3, there are two examples with the order 'object pronoun-*not*' (cf. (18a) for an illustration) and one with the opposite order, whereas 'object pronoun-*not*' occurs once in period m4 and the opposite order twice (cf. (18b) for an example with object shift).[15]

(18) a. *My doghtyr, why schryues þou **þe not** of þat synne?*(CMMIRK,95.2579)
My daughter, why confess you yourself not of that sin
'My daughter why don't you confess that sin?
b. '*Why schewyd **me not** Zowr lettyr be-forn?* (CMKEMPE,137.3207)
Why did you not show me your letter before?

Given the low total numbers, no quantitative conclusions can be drawn from the m3 and m4 data. But what is crucial for our purposes is that object shift is not ruled out entirely in inverted main clauses, so there is no reason to assume that negation cannot be low in such a context. The fact that object shift does not occur systematically is not unexpected, either, as variation with respect to the occurrence of object shift also seems to be found in non-inverted clauses (cf. Table 7). This suggests that object pronouns only undergo optional movement to the left. In conclusion, low negation cannot be excluded as a feature of the Middle English inverted main clause data from periods m3 and m4, and high negation is not required to account for them. The diachronic implications of the analyses presented in section 4 are therefore compatible with the data from the PPCME2.

7. Conclusions

Developing some of van Kemenade's empirical observations and theoretical proposals, I have proposed the following scenario for the development of secondary negation in early English. The OE secondary negator *na* can occur in a high or a low position, with the high one being restricted to V-to-C movement contexts and the low one (contrary to what van Kemenade assumes) being available in all contexts. At this point, there is no evidence for the placement of *na* in a position dedicated to negation and it can therefore be analyzed syntactically as an adverb. The restriction of *na* to V-to-C contexts can be accounted for by relating V-to-C in negative contexts to an uninterpretable negative feature in C and by analyzing the licensing of negative elements in terms of a system of binary Agree as proposed by Haegeman & Lohndal (2010). In EME, the main properties of the secondary negator *not* remain the same as those of *na* in OE. But the evidence discussed in Haeberli & Ingham (2007) suggests that at least low *not* may not have the status of an adverb any more but occupies a NegP. This situation remains stable until the fourteenth century when Neg V1 is lost. As consequence of this development, high *not* cannot be licensed any longer and low *not* remains the only negative marker. Orders of the type '*not*-subject' are maintained, however, through the emergence of a head use of *not* which is manifest first in clauses with demonstrative subjects and later in clauses with pronoun subjects.

Notes

[1] The OE data discussed in this paper are all taken from this corpus. Cited examples follow the referencing conventions of that corpus.

[2] Impersonal verbs and passives of ditranstive verbs are therefore excluded as the nominative argument may occur in an object position in these cases (cf. Allen 1995). Furthermore, I also exclude clauses with a finite modal verb as modals can be argued to lack an external argument (cf. van Kemenade 1997:336). Clauses in which the thematic roles are assigned by an adjective are not considered, either. In order to avoid interference by the heaviness of clausal arguments, I will focus on clauses with a nominal nominative argument and at least one additional nominal or pronominal argument. Finally, I will include all clauses with a negated finite verb in a position before a nominal subject. The negated verb may therefore not be in absolute initial position.

[3] But see below for some remarks on why it may be problematic to discard examples for the purposes of analyzing sentential negation simply because they show a constituent negation interpretation.

[4] I will adopt van Kemenade's label FP in my discussion here. But cf. Haeberli (2000) for some evidence linking this position to subject-verb agreement (AgrP).

[5] If we assume that *na* cannot be extraposed, these data suggest that at least about half of all subordinate clauses with a secondary negator have a head-initial structure. As van Kemenade observes in her discussion of Table 4, this rate is even higher with clauses with nominal subjects. This is in clear contrast to data obtained with other diagnostic elements in Pintzuk and Haeberli (2008). There head-initial structure reaches frequencies between 1% and 25%, depending on the diagnostic element used. This contrast suggests that secondary negation in OE is favoured in head-initial structures (cf. also Einenkel 1913:211 for a similar point), an observation which may at least partly explain why the rise of the secondary negator is situated in the Middle English period, i.e. in a period when head-initial structure becomes the predominant one.

[6] Both clauses are followed by a clause introduced by *ac*, but what follows does not seem to correspond simply to a constituent that could be negated by *na* in (4b) and (4c). The continuations of (4b) and (4c) are given below:

(i) ac he nolde his cwyde awendan ðurh ðone þe he bead his leorningcnihtum ær his ðrowunge þus cweðende: (cocathom2,+ACHom_II,_8:68.45.1377)
But he not-wanted his speech change through that who he summoned his disciple before his suffering thus speaking:
'But he did not want to change his speech through him who he summoned as his disciple before his suffering, thus speaking:'

(ii) ac hi hwæðre ongeaton heora andweardnesse in ondetnessum…
but they nevertheless recognized their presence in confessions…
'but they nevertheless recognized their presence in confessions…'

[7] Van Kemenade mentions 7 cases in her Table 4. Her selection criteria for inclusion may have led her to exclude one of the examples I have found, but it is not entirely clear to me which one could have been eliminated. I therefore consider them all here.

[8] Within a framework that only uses head-initial projections, it would be conceivable that a low negator and the VP-internal argument undergo remnant movement to the left of the auxiliary once other material has moved out of the VP.

[9] Interestingly, the preverbal negative clitic *ne* is absent in this example, a phenomenon that is rare in OE. It is not clear, however, whether this observation has any bearing on the issues discussed here.

[10] This hypothesis can be motivated by PF considerations. If the [*u*NEG] feature on T were eliminated entirely as soon as it has entered an Agree relation, it would not be available for Spell Out at the phase level. Its presence is therefore required if we assume that [*u*NEG] on T corresponds to the preverbal negative clitic *ne* in OE.

[11] In fact, if we assume, as suggested in (15) (but cf. footnote 12), that the uninterpretable NEG feature on C co-occurs with one in T, insertion of the null operator in a high position would not just be allowed, but it would be necessary to obtain a grammatical derivation in a structure with [*u*NEG] on C. If the null operator were below T, we would get the sequence C [*u*NEG] T [*u*NEG] OP[*i*Neg], meaning that two uninterpretable features occur above the interpretable one, a configuration that we ruled out in (14).

[12] An alternative to assuming that both C and T carry a [*u*NEG] feature in V-to-C contexts would be to assume that only C carries one and that it is therefore the feature on C that is spelled out as *ne* in such cases. This option would be attractive if the presence of Neg V1 in early English could be related to the presence of the preverbal negative clitic, i.e. if Neg V1 could only be derived as long as there was such a preverbal negative clitic. However, Ingham (2005) concludes that the two phenomena are not linked in such a way as the decline of negative V seems to have preceded the decline of *ne*.

[13] The percentages are calculated against the total possible instances of inversion. Thus, the absence of Neg V1 means that no other constituent precedes the subject so that, if inversion had take place, the verb would occur in initial position.

[14] The only potential example is the following one found in Chaucer:

(i) And sire, by youre leve, that am nat I (CMCTMELI,221.C1.148)
'And sir, if you please, that is not me.'

However, the subject could be argued to be focused here, so the example does not seem to be relevant for our purposes.

[15] In addition, there is one conditional clause with subject-verb inversion where the object pronoun precedes *not* in period m4.

References

Alexiadou Artemis & Elena Anagnostopoulou
2001 The Subject-in-Situ Generalization, and the Role of Case in Driving Computations. *Linguistic Inquiry* 32: 193-232.

Allen, Cynthia
1995 *Case Marking and Reanalysis. Grammatical Relations from Old to Early Modern English*. Oxford: Clarendon Press.

Chomsky, Noam
2001 Derivation by Phase. In *Ken Hale: A Life in Language*, M. Kenstowicz (ed.), 1-52. Cambridge: MIT Press.

Einenkel, Eugen
1912 Die englische Verbalnegation. *Anglia* 35, 187-248.

Haeberli, Eric
2000 Adjuncts and the Syntax of Subjects in Old and Middle English. In *Diachronic Syntax. Models and Mechanisms,* S. Pintzuk, G. Tsoulas, and A. Warner (eds.), 109-131. Oxford: Oxford University Press.

Haeberli, Eric
2005 Clause Type Asymmetries in Old English and the Syntax of Verb Movement. In *Grammaticalization and Parametric Change*, M. Batllori, M.-L. Hernanz, C. Picallo & F. Roca (eds.), 267-283. Oxford: Oxford University Press.

Haeberli, Eric & Richard Ingham
2007 The position of negation and adverbs in Early Middle English. *Lingua* 117: 1-25.

Haegeman, Liliane & Terje Lohndal
2010 Negative Concord and (Multiple) Agree: A Case Study of West Flemish. *Linguistic Inquiry* 41:181-211

Ingham, Richard
2005a The Loss of Neg V–>C in Middle English. *Linguistische Berichte* 202: 171- 206.

Ingham, Richard
2005b NegV1 and Secondary Negation in Old and Middle English Religious Prose'. In York Papers in Linguistics 2 (3), J. Close, A. Galani, B. Sinar & P. Wallage (eds.), 29-49. University of York: Department of Language and Linguistic Science.

Kemenade, Ans van
1997 V2 and embedded topicalization in Old and Middle English. In *Parameters of Morphosyntactic Change*, Ans van Kemenade and

Nigel Vincent (eds.), 326-352. Cambridge: Cambridge University Press.

Kroch, Anthony and Ann Taylor (eds.)

2000 *The Penn-Helsinki Parsed Corpus of Middle English* (PPCME 2). University of Pennsylvania, Philadelphia.

Pintzuk, Susan

1999 *Phrase Structures in Competition: Variation and Change in Old English Word Order*. New York: Garland.

Pintzuk, Susan & Eric Haeberli

2008 Structural Variation in Old English Root Clauses. *Language Variation and Change* 20:367-407.

Taylor, Ann & Susan Pintzuk

2009 Information Structure and the Syntax of Objects in Old English: A Corpus Study. Paper presented at the Philological Society Workshop "Corpus-based Advances in Historical Linguistics, University of York.

Taylor, Ann, Anthony Warner, Susan Pintzuk & Frank Beths (eds.)

2003 *The York-Toronto-Helsinki Parsed Corpus of Old English*. University of York, York.

Zeijlstra, Hedde

2004 *Sentential Negation and Negative Concord*. PhD dissertation, University of Amsterdam.