Secondary negation and information structure organisation in the history of English

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1. Introduction

In this paper, I re-examine change in secondary clause negation at various stages in the history of English. Much has been written about this topic, e.g. Frisch (1997), Hulk & van Kemenade (1997), van Kemenade (1999), Haeberli (2000), van Kemenade (2000), van Gelderen (2008), Haeberli & Ingham (2007), Wallage (2005, 2008). Most of the work cited above adopts the concept of a NegP (a notable exception is Frisch 1997), which accommodates a negative head, in early English the preverbal clitic negator *ne*, and a secondary negator, the precursor of present-day English *not*. The 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.

A pivotal matter in this discussion is the syntactic status and position of the secondary negation marker. In Old English, secondary clause negation is a minor pattern and as such is expressed by *na* (and spelling variants thereof, primarily *no*; I will refer to this as *na*), which is also employed as a (negative) marker in contexts of comparison and contrast (with a reading: ‘not this, but that’). The Old English cognate of *not* is *nawiht*, literally ‘no creature’, which in Old English is employed as an emphatic negator, meaning something like ‘not at all’. It is fair to say, then, that there is no direct formal continuity between the Old English secondary clause negator *na* and *not* as it appears from early Middle English onwards.

The aim of this paper is twofold: the first and foremost is to re-examine secondary clause negation in Old English, in particular the status of the marker *na* in Old English. In van Kemenade (2000), this is treated on a par with *not* as it appears in Middle English and later stages, and is analysed as a SpecNegP element, where NegP is located in a high position in the clausal architecture throughout the Old and Middle English periods, dominantly following pronominal subjects and preceding nominal sub-
jects. Here, the status of the marker *na* is reconsidered in the light of its similarity in behaviour to discourse particles such as *pa* and *ponne* ‘then’, as analysed in van Kemenade & Los (2006), van Kemenade (2009), van Kemenade & Milicev (2010). It will be argued that the secondary negator *na* in Old English has two basic uses: one in which it is a secondary clause negator low in the clause, and one in which it is used as a discourse particle that is relatively high in the clause, often in contexts of comparison and contrast. The first use is attested in main clauses without inversion of subject and finite verb, and is almost categorical in sub-clauses. The second use is restricted to root clauses with V to C movement. The transition to Middle English is also considered in this light, as it witnesses substantial loss of discourse particles: *not*, the grammaticalised version of the Old English emphatic negator *nawiht*, takes the place of Old English *na* as a secondary clause negator. At that stage, we begin to see evidence that *not* in V to C movement contexts is part of a NegP relatively high in the structure. We will consider this development as an instance of grammaticalization.

The second aim of the paper is to re-examine the status and position of the secondary negator in the clausal architecture, following up van Kemenade (2000) and responses to this, in particular Haeberli & Ingham (2007) who argue, mostly on the basis of evidence from sub-clauses in the earliest period of Middle English, that the position of NegP is considerably lower than is claimed by van Kemenade (2000). The Middle English evidence shows a continuation of the Old English pattern: the position of *not* is high in root clauses with V to C movement, now also including negative questions, and it is low in other contexts. Both of these patterns are continued well into the early Modern period, until negative contraction progressively obliterates the erstwhile positional contrasts. We will analyse the rise of negative contraction as a progressive (grammaticalising) reanalysis of *not* as a negative head.

The paper is organised as follows: Section 1 provides the backdrop for the treatment in this article. Section 2 addresses negation in Old English, including secondary clause negation. Section 3 discusses the grammaticalization of *not* in the subsequent history of English; section 4 concludes.

2. Background

In this section, I briefly sketch the discussion on clause negation in the history of English as in the literature cited above, by way of background to
the argument presented here. Clause negation in Old English is predominantly marked by the preverbal clitic negator *ne*. Van Kemenade (2000, and see also Haeberli 2000), mainly studying root clauses, argues that the pattern of multiple sentential negation with *ne* and *not* in Middle English is foreshadowed as a minority pattern in Old English in the form of a combination of *ne* and *na*. We briefly consider two Old English examples in (1) in the clausal architecture as in (2):

(1) a. *ponne ne miht pu na þæt mot ut ateon of ðæs mannnes eagan*  
    ‘then you could not draw the speck out of man’s eye’  
    (ÆHomP.XIII.153)

b. *Ne sæde na ure Drihten þæt he mid cynehelme oððe*  
   ‘Our Lord said not that He would come to us with a diadem or clothed in purple.’  
   (ÆLS.XXXI.762)

(2)
The head of NegP is the negative marker *ne*, an inflectional prefix almost never separated from the finite verb, which is checked against the negative head, overtly in clauses with syntactic V-movement, covertly in others. (2) has syntactic V-movement: *ne miht* is base-generated as the head of the VP, and is moved overtly, to T, Neg, F, and C (negative-initial clauses have V to C movement). Personal pronouns in this analysis are in SpecFP, where F should be taken for the time being as a functional slot. The element *na* is the secondary negator occupying the specifier of NegP; its position is therefore fixed. In this structure, (1b) is derived as follows: *Ne* is treated as a syntactic constituent, the first constituent in SpecCP (for arguments, see van Kemenade 2000); the finite verb *sede* has been moved to C, as typical of questions, negative-initial clauses and clauses introduced by *pal/ponne* in Old English; *na* is the secondary negator; *ure Drihten* is the DP-subject in SpecTP. Pronominal subjects (near-categorically) occur on the left of the secondary negator – this position is dubbed SpecFP here (we will return to this below).

This structure is essentially maintained in Middle English, as in (3):

(3) a. *ne parf bu naut dreden pt attri neddre of helle*  
not need you not fear the venomous snake from hell  
‘You need not fear the venomous snake from hell.’

(CMANCRIW-1, II.108.1354)

b. *nule nawt pi leofmon poli na leas ping ta*  
not-will not your beloved tolerate no false thing to  
deceive you long  
‘Your beloved will not allow any false thing to deceive you for long’

(Juliana.33.332)

In these early Middle English examples, the position of *noht/nawt* (henceforth referred to as *not*) is identical to that of *na* in Old English: the pronominal subject in (3a) precedes the secondary negator *naut*, whereas the nominal subject *pi leofmon* in (3b) follows *nawt*.

Van Kemenade (2000) furthermore quotes evidence for a lower negation marker, especially in Middle English, following an object pronoun. Examples are given in (4):

(4) a. *And freten hym, for that they knewe hym naught.*  
(Chaucer, *Knight’s Tale* 2068)

b. *I woot right wel, thou darst it nat withseyen*  
(Chaucer, *Knight’s Tale* 1140)
Such examples are analysed as involving a low negative adverb, perhaps in the specifier of a second NegP lower in the clause, immediately above VP (I will remain agnostic on its status here). Patterns such as those in (4) then involve scrambling of the pronominal object across the negator, in the case of (4a) also involving V to T movement.1

Haeberli & Ingham (2007), following up Haeberli (2000) and van Kemenade (2000) note, for the earliest period of Middle English (AD 1150–1250), that these analyses make predictions that turn out to be inappropriate for sub-clauses in that period: pronominal objects, though not nominal objects, may occur in a position preceding not as well. Haeberli & Ingham analyse this in terms of a NegP below T. In this structure, both subject positions precede the secondary negator, as in (5):

(5) a. *Gif ðat hali writ ne wiðseið ðe naht*
   if that holy text NEG prevents you not
   ‘if that holy text does not prevent you’ (CMVICES1, 101.1223)

   b. *ac it ne openede hem noht þe blisse of heuene*
   but it NEG opened them not the bliss of heaven
   ‘But it did not open the bliss of heaven to them’
   (CMTRINIT, 87.1165)

Haeberli & Ingham extend this analysis to main clauses, including those where the nominal subject follows not, and thus account for secondary negation in terms of a low NegP throughout, arguing that the pattern with low negation noted by van Kemenade (2000) for late Middle English is already the most typical one in early Middle English. We will come back to this issue in section 3.

3. Secondary negation in Old English

I now first examine the status of secondary clause negation by *na* in Old English. Clause negation in Old English is expressed predominantly by the preverbal clitic negator *ne* alone, as in (6) (from van Kemenade (2000):

1. This shows that in the M1 period, the object shift pattern that is contingent on V-movement, as we will discuss in section 4, was not yet in place.
(6) a. _ne sende se deofol _da_ fyr of _heofenum, peah _pe_ not sent the devil then fire from heaven, though that _hit _ufan _come_ it from-above came

‘the devil sent not fire from heaven, though it came from above’

(ÆCHom.i.6.13)

b. _Nolde _se _Hælend _for _his _bene _swapeah _hym_ not-wanted the Lord for his prayer however him _fram _gewitan_ from depart

‘The Lord, however, did not want to honour his prayer to go from him.’

(ÆHom.Pope.XIV.199)

Multiple clause negation is a minority pattern in Old English. The Old English cognate of _not_, the negative noun _nawiht_ ‘no creature’, is used as a negated noun as in (7), or an emphatic negative adverb as in (8).

(7) _Eala leof _lareow, _ealle _niht _we _swuncon, _on _idel _wacigende, Lo, dear teacher, all night we toiled, in vain watching, _and _we _naht _ne _gefengon._ and we naught not caught

‘Lo, dear teacher, we worked all night, keeping vigil in vain, and we caught nothing.’

(coaelhom, ÆHom_15:19.2145)

(8) _pæt _he _pone _manfullan _Bretta _cyning _mid _his _unmæatum _weorode, that he the sinful of-Brits king with his monstrous host, _pæm _he _gealp _pæt _him _nawiht _wiðstandan _meahte, which he boasted that him not-at-all resist could, _ofslog _and _acwealde _in _pære _stowe, defeated and killed in that place

‘that he defeated and slew the sinful king of the Britons there, along with a monstrous host which he boasted was invincible.’

(cobede, Bede_3:1.154.13.1477)

The origin of _not_ in _no-wiht_ should not be taken to suggest that _no_ is a just a constituent negator: although _naçıno_ is also employed in contexts of contrast and comparison (as discussed below), negation of nouns in Old English is largely expressed by negative quantifiers inflected as adjectives.
Clause negation with another negative marker beside *ne* thus seems to be restricted to cases with *na* as illustrated in (1). Recall that the position of *na* in Old English root clauses was taken by van Kemenade (2000) to indicate the position of NegP in the clausal architecture. More recent work shows that the positional differences between pronominal and nominal subjects and objects are evident in a wider range of constructions in Old English. In particular, van Kemenade & Milicev ([2005] 2011), van Kemenade & Los (2006), and van Kemenade (2009) show that there is a range of clause-typing and modal uses of adverbs in Old English that in terms of word order serve to separate discourse-given and discourse-new subjects and objects of various types. With respect to their word order evidence, two such adverbs have been studied in particular: *pa* and *ponne* ‘then’. We will here take the results of these case studies as a model, to see if further insight into the properties of Old English *na* can be gained by comparing them with those of the adverbs *pa* and *ponne*. We will therefore first summarise the argument with respect to these adverbs, before we move on to a closer examination of clause negation with *na* in Old English.

3.1. Excursus on *pa*/*ponne* as discourse particles in Old English

Van Kemenade & Milicev ([2005] 2011) identify differential subject positions in Old English, following up Haeberli (2000) and van Kemenade (2000): a high position where pronominal subjects normally appear (cf. SpecF in (2)), and a low one mostly for nominal subjects (cf. SpecT in (2)). These positions are distinguished in several contexts in Old English: one is that of root clause questions, illustrated in (9) and (10), where the finite verb has been moved to the highest functional head C, and a pronominal subject (and optionally a pronominal object) normally precedes the discourse markers *pa*/*ponne* ‘then’, while a nominal subject most typically follows them. As discussed in van Kemenade & Los (2006), the two subject positions are also found in sub-clauses, illustrated in (11) and (12).

(9) *Hu mæg he donne ðæt lof & ðone gilp fleon.*
    how may he then praise and vainglory avoid
    ‘How can he avoid praise and vainglory?’
    (CP. ‘9.57.18’)

(10) *Hu gerades mæg donne se biscep brucan ðære hirdelican are.*
    how properly may then the bishop enjoy of-the pastoral dignity
    ‘How, then, can the bishop properly enjoy the pastoral dignity?’
    (CP. ‘18.133.3’)

Voiced in the case of Old English
(11) *He ne mihte swâ heah ðe libban, ðeah ðe he hine þa ut alysde,* 
he not-could nevertheless ever live, though they him then released
‘Nevertheless, he could not live forever, though they then
released him.’ *(coælive, ÆLS[Ash_Wed]:119.2763)*

(12) *Gif him þonne God ryhtlice & strælice deman wile.*
if him then God justly and strictly judge will
‘If God will then justly and strictly judge him.’ *(CP. ‘5.45.20.257’)*

Table 1 illustrates the distribution of subject types over the two posi­
tions in root questions in the York Corpus of Old English (YCOE, Taylor
*et al* 2003). Pronominal subjects occur almost exclusively in the position
preceding *þa|þonne* (98.9%), while nominal subjects may appear in either
position, with a preference for the lower one (82%). Table 2 (based on van
Kemenade & Los 2006: 231^2) shows a similar distribution in sub-clauses.

**Table 1.** Order of subject and *þa|þonne* in root clause questions in OE

<table>
<thead>
<tr>
<th></th>
<th>DP subject</th>
<th>Pro subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-þa</td>
<td>þonne</td>
<td>11 (18%)</td>
</tr>
<tr>
<td>þa</td>
<td>þonne-subject</td>
<td>50 (82%)</td>
</tr>
<tr>
<td>Total</td>
<td>61 (100%)</td>
<td>91 (100%)</td>
</tr>
</tbody>
</table>

**Table 2.** Order of subject and *þa|þonne* in sub-clauses in OE

<table>
<thead>
<tr>
<th></th>
<th>DP subject</th>
<th>Pro subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-þa</td>
<td>þonne</td>
<td>129 (36%)</td>
</tr>
<tr>
<td>þa</td>
<td>þonne-subject</td>
<td>229 (64%)</td>
</tr>
<tr>
<td>Total</td>
<td>358 (100%)</td>
<td>1121 (100%)</td>
</tr>
</tbody>
</table>

Van Kemenade & Los (2006), following up van Kemenade & Milicev
([2005] 2011) argue that this reflects a discourse structuring strategy: con­
stituents left of *þa|þonne* are interpreted as discourse-given. The following
types of arguments may appear on the left of *þa|þonne*:

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2. The numbers are lower than those in van Kemenade & Los (2006): at the
time, we were not aware that the IP-level in root clause questions is coded as
a sub-clause in YCOE. The numbers here only include sub-clauses.
We first consider what we mean by 'discourse-given' (Given) vs. 'discourse-new' (New), amidst the proliferation of terms in the literature. They refer broadly to information that is known or presupposed (Given) and pragmatically unrecoverable (New). The notion New in particular is not a primitive, but allows further breakdown into whether the information is discourse-new or addressee-new, which is why Lambrecht (1994) prefers the term "pragmatically unrecoverable". Lambrecht points out that entities previously mentioned in the discourse can still be New in the sense that their association with a particular topic is new.

There is a good deal of overlap in the literature between Givenness and topichood. The term 'topic' is here reserved for 'aboutness topics'. These are defined by Gundel (1988: 210) as follows: “An entity E. is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee’s knowledge about, request information about, or otherwise get the addressee to act with respect to E” (cf. also Reinhart 1982). Topics tend to be Given, but they do not have to be. Clauses may introduce a new entity while at the same time using it to denote a topic as in (13), which introduces the topic in the Common Ground content (Krifka 2007: 42):

(13) [A good friend of mine]_{Topic} [married Britney Spears last year]_{Comment}.

New information is most typically presented as comment, saying something about the topic. We use the term "focus" for constituents that are highlighted in some way, which is accomplished in present-day English by prosodic and/or syntactic marking (clefts). The effect of such marking includes meanings of contrast and exhaustive identification. Krifka (2007: 44) characterises the various types of focus as indicating the presence of alternatives, as in (14):

(14) A: What do your siblings do?
B: [My [Sister]_{Focus} {Topic} studies MEDicine]_{Focus},
and [my [Brother]_{Focus} {Topic} is [working on a FREIGHT ship]]_{Focus}
In the first clause of B’s response in (14), focus on *sister* indicates an alternative to the topic “my sister”, namely “my brother”, and this prosodic marking is used by the speaker as a signal to the hearer that the answer is not finished with the first topic (the sister) but will also include information on another topic (the brother) (Krifka 2007: 44). This definition usefully includes focus-marked constituents that are also topics, like the topicalized object *Baseball* in (15):

(15) G: *Do you watch football?*
    E: *Yeah. Baseball I like a lot better.*  (Birner & Ward 1998: 38)

Birner and Ward (1998) note that the contrast in (15) evokes partially-ordered sets: the earlier mention of football evokes the full category of sports. Krifka’s label “focused topics” fruitfully combines these aspects.

A central concern of information structure is partitioning Given from New information. The general consensus seems to be that information structure is utterance-internal and its locus is the clause, whereas discourse structure concerns patterns of cohesion beyond the clause level. The two are closely linked because activation status and accessibility of referents require information from the previous discourse.

Returning to our adverbs *pa/pome*, we claim that they serve to partition Given and New information. As for the arguments that may precede or follow them, the first four types of argument are Given.\(^3\) The position of definite DPs is variable with respect to the diagnostic adverb.\(^4\) Here, van Kemenade & Milicev note that the definiteness marker in the Old English DP belongs to the paradigm of the weak demonstratives (the *se* paradigm), which is marked for case, number and gender; weak demonstratives can also be used as independent pronouns and as relative pronouns. This versatile use of the paradigm shows that it represents an independent strategy of pronominal reference: when used as a definiteness marker, it allows (but does not force) a definite DP to be Given in the

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3. This is less than clear for indefinite pronouns. Van Kemenade & Milicev (2010) show that the cases of indefinite pronouns preceding the diagnostic adverb reflect a free choice from a fixed set of referents given in the discourse. *Man* is analysed as an impersonal pronoun, whose reference can always be inferred from the context.

4. Independently used demonstrative pronouns include cases where the pronoun is the antecedent of a relative clause. An example of this is (26) below. It is the relative clause that grounds the demonstrative antecedent in the discourse.
sense that it has specific reference to a discourse antecedent. Given definite DPs occur on the left of *pa*/*ponne*, whereas New or focussed definite DPs occur on their right. Examples (16) and (17) illustrate this:

(16) *Gif donné se sacred bid ungerad ðæs lareowdomes, if then the priest is unskilled in-the instruction, hwæt forstent donné his gehlyd? what avails then his cry? ‘If the priest is unskilled in instruction, what will his cry avail?’ (cocura, CP, 15,91,25)

(17) *Pa se bised pa geseah, þe him big sæt, when the bishop that then saw, who him by sat, þa licode him seo arfæste dæd þæs cyninges; then pleased him the virtuous deeds of-the king (cobede, Bede_3:4.166.8.1593)

The definite subject DPs in (16) and (17) have different readings: (16) is about priests in a generic sense, ‘the priest in his office as priest’; this clause is not about a specific priest. (17), on the other hand, is about one specific bishop mentioned before in the discourse (the one who is sitting next to *him*). Corpus analysis reported in van Kemenade, Milicev and Baayen (2008) yields strong statistical support for this correlation: definite DPs preceding the adverb *pa*/*ponne* are Given by having specific reference to a discourse antecedent; definite DPs following *pa*/*ponne* have a generic reading and are thus New. Old English thus has an inflectional paradigm that provides an additional strategy of pronominal reference, and it has a set of adverbs that serve as discourse partitioners.

Van Kemenade & Milicev ([2005] 2011) propose that adverbs like *pa* and *ponne* structure parts of the utterance/proposition itself with respect to the preceding discourse, as in (18).

(18) [previous discourse] [utterance presupposition *pa*/*ponne* focus]

We will now consider the analysis of such discourse-partitioning adverbs within the clausal architecture. Here, we point to their similarity to modal particles in German. The formal modelling of modal particles is surrounded by a variety of complex issues. We briefly discuss these here, leaving more detailed consideration for further study of a wider range of particles.
The Old English facts concerning *pa* and *ponne* support the following observations: semantically they can be used in their literal sense as temporal adverbs, but in their use as discussed here, they also have modal semantics. Bayer & Obenauer (in press) and work cited there, shows for German modal particles that they express the speaker’s attitude about him/herself or about the hearer with respect to the propositional content of the utterance. Thus, German questions with *denn* are not necessarily requests for information; they signal reference to some common ground with the hearer. Their semantics is closely related to illocutionary force. This may be fruitfully compared with the Old Englis questions in (9) and (10) above, which are rhetorical questions and thus assume a common ground between speaker and hearer.

In their use as modal particles, *pa|ponne* serve a discourse-partitioning use as motivated in the references cited above. In this use, they lose a great deal of their lexical adverbial meaning and acquire modal meanings: they are semantically bleached, which suggests that they are grammaticalised.

One current way of conceptualising the special syntax of modal particles in a formal syntactic framework is to associate adverbs with functional slots in the clausal architecture (cf. the clausal hierarchy argued for in Cinque 1999). Such an approach to discourse particles is adopted in Aboh (2004, 2006) for Gungbe, and in Bayer (in press) for modal particles in German. Bayer (in press) analyses the German modal particle *denn* in present-day German questions: in a sequence of functional heads as in (19), *denn* is the head of a PrtP. It is not an incorporating head – it cannot incorporate the finite verb under V to C movement.5 The particle must be c-commanded by a Question-feature. *Denn* as a functional head is preceded by an aboutness topic, which must move to the topic field preceding the particle, and is followed by the extended VP or another adverb or particle, under observance of Cinque’s hierarchy.

(19) \[FinP Fin© [TopP topic* [PrtP [Prt© *denn] [VP (ext) ... topic* ... ]]]]\]

In this approach, word orders are derived in a one to one association with functional slots in a hierarchy of functional features: the linear order

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5. Bayer & Obenauer (in press) extend this analysis to what they call ‘special questions’, questions which are not interpreted as simple requests for information. In these question types, modal particles in German may form a constituent with a *wh*-phrase, which is subsequently moved to SpecCP. This is a pattern that also occurs in Northern Middle English, as discussed in de Haas (forthcoming).
of topic and particle is derived by their respective positions in the functional hierarchy. I will follow up this analysis for the purposes of my treatment here, with one proviso: I will assume that the particle is in a specifier position. This allows an account of the broader range of uses of *pal/ponne* in terms of semantic bleaching as the result of movement to a functional specifier, whilst their basic meaning is preserved, and it leaves open the possibility that over time, modal particles may grammaticalise to functional head status, as seems to be the case in German.\(^6\)

With respect to Old English *na* in its high position in root V to C contexts, I will implement this as follows: *na* may move to the specifier of a mood-related position associated with contrast, which takes contrastively focussed entities in its scope. This will be further motivated in the following section. *Na* has an unvalued feature that is valued by a negative operator in C. Note that this implies that high *na* only occurs in negative-initial clauses with V to C movement. For Old English, this is correct: *na* is rare in questions and other types of V to C contexts. The total of five examples found are compatible with a high position, but not conclusive, and they have a secondary negation reading, not a contrastive reading: the contrastive meaning contribution apparently precludes this.\(^7\) The situation for Middle English is different, and will be discussed in section 4.

\[ (20) \quad [CP \text{ Op } Vf] \quad [\text{ topic area } [PrtP na \ [Prt0] \ [. \ . \ . \ Vf]]] \]

We now turn to discussion of *na* in Old English.

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6. Detailed consideration of this issue is a separate matter beyond the scope of this article. The underlying idea is that the onset of semantic bleaching is the result of movement to a functional specifier, a step in a grammaticalization process (cf. van Kemenade 2000). While the basic and literal use of *pal/ponne* is that of a temporal adverb, movement to the specifier of a mood-related position involves bleaching to modal semantics; movement to SpecCP yields a bleached meaning of signalling discourse continuation, as in the very frequent pattern with *pal/ponne* introducing a V to C clause (van Kemenade & Los 2006).

7. Note however, that this includes one example of a rhetorical negative question, as in root questions with *pal/ponne* as in (9)–(10).

(i) *Ac ne geseop ge na *pone eadigan Petrum & Paulum *pa ealdomen para apostola?*

but not see you not the blessed Peter and Paul the princes of the apostles

'but don’t you see the noble Peter and Paul, the principal among the apostles?'

(cogregdC, GDPref_and_4_[C]:12.277.4.4049)
3.2. Secondary negation by na

In the evidence discussed above, the positional similarity between *na* and discourse adverbs is at first glance striking. I will first explore this further. The data here are based on exhaustive searches for *na* in the York Corpus of Old English (YCOE, Taylor et. al 2003). The text referencing is from this corpus. *Na* is marked in YCOE as an adverb phrase ADVP dominating Neg + ADV, which appropriately distinguishes it from negative quantifiers. *Na* hardly ever combines with *palponne* in one clause and, in the handful of examples, no clear relative order can be established. We focus first on negative root clauses with V to C movement, since it is there that *na* primarily serves a diagnostic function for the position of the subject (*na* is rare in root questions, as noted above). Although *na* nearly always combines with the preverbal clitic negator *ne*, there are cases where it does not seem to have clausal scope. Two contexts stand out here: *na* may precede another adverb as in (21a), or a quantifier, as in (21b).

(21) a. *pa* ferde Martinus *na* swyde feor *panon*
then departed Martin not very far from-thence
‘Then Martin departed not very far from thence’
(coaelive, AELS_[Martin]:444.6248)

b. *ponne ne* bið *para* fastendaga *na* *ma* *ponne* syx & *pritig.*
then not are of-the fast-days no more than six and thirty
‘then there remain no more than thirty-six of the fast-days’
(coblick, HomS_10_[BlHom_3]:35.159.472)

This context forces a reading in which *na* modifies the adverb or quantifier only. These cases were therefore excluded from the search.

In the second context, *na* seems to act as a conjunction contrasting two constituents or clauses. Two examples of this are given in (22).

(22) a. *Ne* fæsðo se *no* Gode *ac* him selfum,
not fasts he not-for God but himself,
*se* ðe ðæt nyle *ðearfum* sellan ðæt *he* *ðonne* on *mæle* læfð,
who that not-will the poor give what he then of meal leaves,
*ac* *wile* *hit* healdan eft to oðrum *mæle*,
but will it keep then for another meal,
*ðæt* *he* *eft* *mage* his wambe mid *gefyllan.*
that he afterwards may his belly with fill
‘He fasts not for God but for himself, who will not give the poor what he leaves of his meal, but wishes to keep it for another meal, to fill his belly with it afterwards.’

(cocura, CP:43.317.3.2120)

b. Ne sohte crist na ða modigan,
not sought Christ not the proud,

\[pa \ de\ mycele beoð on hyra geðance;\]
those who great are in their imagination,

\[ac \ pa \ pe\ beoð lytle and eaðmode on heora heortan:\]
but those who are little and humble in their hearts:

\[pa\ cumad ðo godes rice:\]
these come to God’s kingdom;

‘Christ sought not the proud, those who are great in their own imagination, but those who are little and humble in their hearts, these shall come to God’s kingdom.’

(cocathom1, ÆCHom_I, 9:250.53.1617)

In (22a), two dative NP’s are contrasted: ‘not God, but himself’. In (22b), two accusative NP’s embedding relative clauses are contrasted. It seems reasonable to think of _na_ here as a negative conjunction marking the first member of a contrastive coordination. Given this, it is of considerable interest for our present purposes that in quite a few of these contrastive contexts, _na_ does not immediately precede the first of the two contrasted constituents. An interesting illustration of this are (23a) and (23b): in these two examples, which apart from the position of _na_ are identical and occur in the same sermon, the contrast is between the two PP’s _na be hlafæ anum_, _ac be ðam wordum ðem_. In (23a), _na_ immediately precedes the PP, but if we take that reading, it is remarkable that _na_ in (23b) is in a position on the left of the subject. The same holds of (23c) where _na_ introduces a contrast between two PP’s: _at nanes iudeiscæs mannæ_ with _ac at rihtgelyfedæ manna byrgenum_. Note however, that _na_ is between the subject _God_ and the direct object _pas wundra_.

In (23b), _na_ is introduced as the first of two NP’s which are contrasted: ‘not the proud, those who are great in their imagination, but those who are little and humble in their hearts, these shall come to God’s kingdom.’
(23) a. Ne leofað se man na be hlafe anum,  
not lives the man not by bread alone,  
ac lyfað be eallum dam wordum be gað of godes muðe  
but lives by all the words that go from God’s mouth  
‘Man lives not by bread alone, but by all the words that go from the mouth of God.’  
(cocathom1, ÆCHom_I,_11:266.13.1988)

b. ne lifað na se mann be hlafe anum,  
not lives not the man by bread alone,  
ac lifað be dam wordum de gað of godes muðe  
but lives by the words that go from God’s mouth  
(cocathom1, ÆCHom_I,_11:267.50.2028)

c. Ne wyrcð God na þas wundra et nanes iudeisces mannes  
not works God not these miracles at no Jewish man’s  
byrgene ne et nanes oðres gedwolan. ac et rihtgelyfedra  
sepulchre, nor at no other heretic’s, but at orthodox  
manna byrgenum [..]  
man’s sepulchres,  
‘God works these miracles not at any Jewish man’s  
sepulchre, nor at any other heretic’s, but at the sepulchres of  
orthodox men.’  
(cocathom1, ÆCHom_I,_20:344.253.4081)

I hypothesise that in cases like (23b–c), na is not in the position marking  
the first member of the contrastive coordination, but occupies a position  
more to the left: the high position for na. To further explore the nature of  
the position for secondary na in root V to C contexts, I have therefore  
excluded cases like (22) and (23a), where na as far as we can tell marks  
the constituent, and I have included cases like (23b–c), as these may pro­ 
vide evidence for the high position of secondary na.8 With these restric­ 
tions in mind, I consider the figures for inverted negative main clauses  
with na and for sub-clauses, as given in tables 3 and 4:

8. This detailed check of cases of contrastive coordination where na may occur  
on the left of nominal subjects, was done only in the search file for nominal  
subjects. This is because pronominal subjects are near categorically in the  
position on the left of na, and we thus do not expect to find any added diag­ 
nostic value.
Table 3. Old English negative-initial root clauses with *na*

<table>
<thead>
<tr>
<th></th>
<th>DP subject</th>
<th>Pro subject</th>
<th><em>Man</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject-<em>na</em></strong></td>
<td>39 (40.2%)</td>
<td>342 (100%)</td>
<td>7 (100%)</td>
</tr>
<tr>
<td><strong>Na-subject</strong></td>
<td>58 (59.8%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total N</strong></td>
<td>97</td>
<td>342</td>
<td>7</td>
</tr>
</tbody>
</table>

The results are quite clear for personal pronoun subjects and for the impersonal pronoun man: these always precede *na* in both clause types, and I will not consider these in further detail. Nominal subjects present a very different picture: a majority of 59.8% follows *na*. It may be noted that this also includes clauses with unaccusative verbs, a context in which especially DP subjects, and more especially when they are focussed, may be in a lower position (van Kemenade 1997). But the facts in Table 3 show that the nominative in an unaccusative context (whether nominal or pronominal) is clearly sensitive to IS considerations, and transitive verbs are attested here as well. An unaccusative context is given in (24), and (25) gives an example with a transitive verb:

(24) Root clauses. Subject-*na*

\[
Nis \, pis \, na \, gesæd\, be\, manna\, sawlum, \\
not-is\, this\, not\, said\, of\, men's\, souls, \\
ac\, be\, manna\, lichaman\, be\, formolsniað\, to\, duste, \\
but\, of\, men's\, bodies\, that\, moulder\, to\, dust
\]

'This is not said of men's souls, but of men's bodies that moulder to dust.'

(cocaelive, ÆLS[Ash_Wed]:27.2717)

(25) Root clauses. *Na*-subject

\[
Ne\, cwæð\, na\, se\, Symeôn\, þæt\, Cristes\, swurd\, scoelde\, þurhgan \\
not\, said\, not\, the\, Simeon\, that\, Christ's\, sword\, should\, pierce \\
Marian\, lichoman:\, ac\, hyre\, saule. \\
Mary's\, body,\, but\, her\, soul
\]

'The old Simeon said not that Christ's sword should pierce through Mary's body, but her soul.

(cocathom1, ÆCHom_I, _9:254.176.1725)

Given the correlation between the information structure status of the subject and its position with respect to the particle, as established quanti-
tatively in van Kemenade, Milicev & Baayen (2008), I will now consider whether the positional variation of subjects with respect to *na* can be accounted for on the basis of the IS status of the constituents preceding *na*.

We start by observing that the fact that personal pronouns and *man* always precede *na* suggests that discourse-referential properties play a key role in distinguishing between the positions on the left and right of *na*. With this in mind, we take a closer look at DP subjects, checking the context in the texts. I will discuss the results in two subsections.

### 3.2.1. Negative root clauses with V to C movement, DP subject-na order

In this context, the findings are entirely parallel to those for *halponne*. The 39 cases numbered in Table 3 include 13 definite DPs, 18 independently used demonstratives, 3 proper names[^9], 5 possessive DPs, all referring to a discourse antecedent, including forward reference. An example of the latter is (26), where the subject is an independently used demonstrative pronoun that is the antecedent of a relative clause

(26) *Ne bið se no gefyllede ðæs Halgan Gæsdæs se ðe* 
    not is he not filled of-the Holy Ghost who that 
    *on ðære smylynesse his monðwærnessæ forlæt ðone* 
    in the tranquility of-his gentleness gives-up the 
    *wielm ryhtwislices andan* 
    fervour of-righteous zeal 

    ‘He is not inspired with the Holy Ghost, who in the tranquillity of his gentleness gives up the fervour of righteous zeal.’

    (cocura, CP:40.291.9.1911)

[^9]: Proper names tend to straddle the two positions, as is shown quantitatively in van Kemenade, Milicev & Baayen (2008).

### 3.2.2. Negative root clauses with V to C, DP subject following na

In the position following *na*, numbering 58 in table 3, we would expect to find DPs with a generic reading, bare NP’s, indefinites and so on. This is true in 37 cases, including some unaccusatives with late subjects. Two examples are given in (27):

[^9]: Proper names tend to straddle the two positions, as is shown quantitatively in van Kemenade, Milicev & Baayen (2008).
In (27a), King Hezekiah is newly introduced and is mentioned as an example of how a ruler is distracted when he has too many things to attend to. In (27b), the DP-subject has a generic reading: '(what is typical of) the Lord’s servant'. A further 7 cases have a subject previously mentioned as another term in the discourse, but where a pronominal object preceding na apparently overrides the IS status of the nominal subject, as in (28).

(28) Ne gedyde nefre se mildheorta Dryhten, ne an his mode not did never the merciful Lord, nor in his mind ne gebrohte swelce hreowsunga, gif he hit after ðæm not brought such repentance, if he it after that auht swiðe wrecan wolde. He gecyðe swiðe mildheortlice aught severely punish wanted. He proclaimed very mercifully ðæt he him deman nolde, ða he gedyde ðæt hi him selfe that he them judge not-would, when he made that they them self’ ar beforan demdan. Be ðæm is awriten ... & eft hit was before judged. About that is written ... and again it was gecweden ðurh Sanctus Paulus: ðær we us selfum demden, said through Saint Paul: where we us self judged, ðonne ne demde us no God. then not judged us not God
‘The merciful Lord would never have caused or brought into his mind such repentance, if he wished afterwards to punish it with any severity. He proclaimed, very mercifully, that he would not judge them, when he made them judge themselves before. Of which is written. And again, it was said through Saint Paul: “When we judged ourselves, God judged us not.”’ (cocura, CP:53.415.2.2865)

This leaves 12 cases of DP subjects which have been previously mentioned in the discourse. These include some generic NP’s (‘man’, expressed as se mann; ‘the mass-priest’ (in his office as priest), 4 cases where the subject refers to a unique entity (God, the holy Father, the holy Ghost, the soul), but also 4 cases where a definite DP-subject might have specific reference to an antecedent. Two of them are proper names (se cyning Totila ‘king Totila’, se Symeon ‘Simon’) for which the context does not force a specific reading, a third is the antecedent of an immediately following restrictive relative clause (29a), and a fourth is (29b), in which the subject seo racu is repeated at intervals through the text, without clear reference to it as an antecedent.

(29) a. Nis na seo orðung ðe we utblawað & inn ateo ure sawul, not-is not the breath that we out-blow and in draw our soul Ac is seo lyft ðe we on lybbad on ðisum deadlicum life but is the air that we on live in this mortal life ‘It is not the breath which we blow out and draw into our soul, but it is the air that we live on in this mortal life.’
   (cotempo, ÆTemp:10.7.317)

b. ac us ne segð na seo racu to hwam he hine sette, but us not tells not this exposition to what he it wrote, buton ðet he sealde soðe gebysnunge eallum dædbetendum, except that he gave true example to-all penitents ‘[...] but the story does not tell us why he wrote it, except to give true example to all penitents.’
   (colsigewZ, ÆLet_4_[SigewoardZ]:1147.562)

My conclusion is that in negative root clauses with inversion, the position of the nominal subject with respect to na is consistent with the findings for pal bromme as quoted above. I therefore claim that DP subjects preceding na are in the higher position in the topic area, whereas nominal subjects following na are in the lower subject position. The position of
na in root clauses with V to C-movement is thus high: above TP in the analysis of van Kemenade (2000). We now turn to sub-clauses.

3.2.3. Sub-clauses

The figures for sub-clauses are given in Table 4:

<table>
<thead>
<tr>
<th></th>
<th>DP subject</th>
<th>Pro subject</th>
<th>Man</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-na</td>
<td>53 (88.3%)</td>
<td>181 (100%)</td>
<td>7 (100%)</td>
</tr>
<tr>
<td>Na-subject</td>
<td>7 (11.7%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total N</td>
<td>60</td>
<td>181</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 4 shows that the figures for nominal subjects in sub-clauses contrast sharply with those in negative root clauses with V to C movement: the DP subject precedes na in 97% of the cases and there are indeed only 7 cases where the subject follows na. Let us consider DP-subjects preceding na first: here too, this dataset presents a very different picture from that in negative root clauses with inversion. Although the nominal subject in many cases has specific reference to an antecedent, this is not true in a substantial 19 cases: this includes definite DPs with a generic reading as in (30), but it also includes quantified NP’s as in (31) and bare plurals as in (32).

(30) Be δαμ suīde wel was gecueden to Ezechiele δαμ witgan about this very well was said to Ezekiel the prophet δαττε δα sacerdas ne scoldon no hiera headfo scieran mid that the priests not should not their heads shave with scierseaxum, ne eft hi ne scoldon hira loccas razors, nor on-the-other-hand they not should their locks lētan weaxan, ac hie scoldon hie efsigean mid scearum. let grow but they should them clip with scissors ‘Concerning which it was well said to the prophet Ezekiel that the priests were not to shave their heads with razors, nor, on the other hand, let their locks grow, but clip them with scissors.’

(cocura, CP:18.139.11.945)
(31) *Hu ne wast þu þæt manig þing ne bið no ongiten*  
how not know you that many things not are not perceived  
swa swa hit bið, ac swa swa þæs andgites mað  
so so it is, but so so the meaning’s proportion  
bið þe þærefter spyred?  
is which there-behind goes?  
‘How is it that you don’t know that many things are not perceived  
as they are, but according to the meaning behind them?’

(coboeth, Bo:41.145.5.2889)

(32) *Nis eac nan wundor þeah us mislympe, forðam we witan*  
not-is also no wonder though us went-bad, because we know  
ful georne þæt nu fela geara men na ne rohton foroft  
well that now many years men not not cared very-often  
hwæt hi worhton wordes oðde dade  
what they wrought of-words or of-deeds  
‘It is no wonder that things went bad for us, since we know full  
well that for many years, people often haven’t cared what they  
say or do.’

(cowulf, WHom_20.2:127.1724)

These findings contrast sharply with those for negative root clauses with  
inversion where the nominal subject precedes *na*, and which have specific  
reference to an antecedent. Since the division of labour between the vari­  
ous subject positions in root clauses with V to C movement is clear-cut,  
this must mean that in sub-clauses, *na* is lower than in root clauses with  
V to C movement. Note in this respect that in (32), two temporal adverbs  
(*nu* and *fela geara*) precede the subject, which in turn precedes *na*, sug­  
gesting that the position of *na* is low. This conclusion is reinforced by a further  
independent characteristic of this dataset: it contains a number of Subject-  
Vf-*na* word orders that is unusually high for sub-clauses in Old English: 40  
out of 53 examples (see e.g. examples (30) and (31)). On the assumption  
that the subject is in the higher position, or the lower subject position  
SpecT, and the finite verb has been moved to T, the conclusion is that *na*  
is below T in sub-clauses.

This leaves seven examples of *na* in sub-clauses where the nominal sub­  
ject follows the secondary negator. The properties of the nominal subject  
in these cases are consistent with those for nominal subjects following *na*  
in root clauses: they have no discourse antecedent; they are bare NP’s or,  
when they are definite, tend towards a generic reading. On our analysis
Secondary negation and information structure organisation

here, this would mean that *na* in these contexts is high. We will come back to this below. Two examples are given in (33):

(33) a. & *ponne dū pas wyrte mid hyre wyrttruman niman wylle*, and when you the root with her root-stock take want, *donne warna þu þæt hy na sunne bescine*, *ðy læs hyre hiw* then take-care you that it not sun beshines, lest her colour & *hyre miht sy awend þurh ðære sunnan beorhtnyss*. and her power be changed through of-the sun brightness

‘When you want to uproot the root, then be careful that the sun doesn’t shine on it, so that its colour and power are not affected by the brightness of the sun.’

(coherbar, Lch_I_[Herb]:182.1.2618)

b. *Fordæm ṭe na se dorn Ȝære gitsunga ne wyrd* because that not the thorn of-the greed not becomes *forsearod on Ȝæm helme, gif se wyrttruma ne bið færconfen* withered in the crown if the root not is cut-off *odðe forbærned at Ȝæm stemne.* or burnt at the stem

‘[...] because the thorn of greed does not wither in the stem, unless the root has been cut off or burnt at the stem.’

(cocura, CP:45.341.9.2292)

In (33a), an object pronoun precedes *na*, whereas the bare NP *sunne* follows it. In (33b), the subject *se dorn Ȝære gitsunga* is mentioned for the first time in the discourse as a simile for how avarice should be dealt with.

These findings raise the question whether the divergent positioning for *na* in root clauses with V to C movement and in sub-clauses respectively is related to V to C movement. We therefore now briefly consider root clauses with *na* in which the finite verb has not been moved to C. The main findings are given in table 5:

**Table 5. Old English root clauses, no V to C movement, with *na***

<table>
<thead>
<tr>
<th></th>
<th>DP subject</th>
<th>Pro subject</th>
<th>Man</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-<em>na</em></td>
<td>115</td>
<td>191</td>
<td>2</td>
</tr>
<tr>
<td><em>Na</em>-subject</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total N</td>
<td>121</td>
<td>193</td>
<td>3</td>
</tr>
</tbody>
</table>
These findings are very much in line with those for sub-clauses. Furthermore, as in sub-clauses, the incidence of subject-Vf-na word order is very high (102 out of 115). Again, on the assumption that the finite verb has been moved at least to T, this implies that na is below T. I therefore conclude that the high position for na is a characteristic of clauses with V to C movement. (34) gives an example:

(34) Se halga wer pa cwæd, wif ne sceal na faran to wera

The holy man then said, woman not shall not go to men’s

fyrdwicum, ac wunian et ham;
camps, but remain at home

‘The holy man then said: a woman should not go to men’s camps

but remain at home. (coaelive, ÆLS_[Martin]:1095.6683)

3.2.4. Discussion

The case study in this section presents evidence that the position of na differs between clauses with V to C movement (negative root clauses with inversion) and other clause types: in root clauses with V to C movement, na is between the higher and the lower subject position. In main clauses without V to C movement and in sub-clauses, on the other hand, the secondary negator is dominantly below the lower subject position, except perhaps in a few cases where the subject follows na. We have also seen evidence that the high position for secondary negation in root V to C contexts may be a derived one: in these contexts, na is high, whether it is a clausal negator or a contrastive constituent negator. The facts here are best accounted for by distinguishing two uses of na, corresponding to two different positions. In the case of clause negation, this is that of an adverb on the left of the VP, as in (35a). In the case of contrastive negation of constituents or clauses, na is an adverb contrastively marking a constituent or clause, as in (35b):

(35a) XP (35b) ConjP

Na VP ConjP

(35b) ConjP ConjP

na YP ac/na/ne YP
In the higher position for *na*, it has the status of a modal particle associated with contrast, that takes in its scope focussed material which may consist of two propositions that are being contrasted, with a reading: ‘not this, but that’. Any non-focussed material, such as Given material, must move to the topic area, in line with (20) above:

(35) \[\text{[CP Op [C}_0 \text{ Vf] [ topic area [prtP na [Prt}_0 \text{ [. . . Vf ]]]]}\]

*Na* has an unvalued feature for negation, which is valued by the negative operator in CP. This accounts for the fact that the high position for *na* is found almost exclusively in V to C contexts.

The cases where the subject follows *na*, as in (33b) in a sub-clause, show that the higher position, with particle use, is not excluded in other contexts. What these often have in common is contrast with the context: (33b) above is a good example of how *na* has scope over two propositions that are being contrasted: the thorn of greed cannot wither in the crown if the condition that the root is cut off is not met. (cf. Milicev in preparation for more detail). This shows that the precise licensing of the high position for *na* is perhaps more complex than I have so far made out here. I leave for further research a more detailed consideration of how *na* and other modal particles feature in contexts of contrast.

4. The grammaticalization of *not* in Middle English

In the previous section, we have seen that there are clear distributional differences with respect to the position of *na* between root clauses with V to C movement on the one hand, and other main clause and sub-clauses on the other hand. We will show here that, while the nature of the secondary negator changes substantially in the transition to Middle English, a difference between V to C movement clauses and other clauses in the distribution of the secondary negator is largely maintained. This difference, I claim, is much in line with the distinction made above for Old English. Recall that in negative main clauses with inversion in Old English, the articulation of two differentiated subject positions as separated by *na* when used as a modal particle is fairly clearcut. Non/V to C contexts, on the other hand (main clauses without V to C movement and sub-clauses), are near-categorically subject-initial. Negative clauses with *na* without V to C movement thus seem to be well on the way to simply becoming subject-initial in Old English, with a low negation marker. For contexts with other modal particles in sub-clauses, this is a situation that occurs
only later, in the transition to Middle English (as shown by van Kemenade & Los 2006, van Kemenade 2009) for contexts with *ha|ponne*.

The modal particle use of *na* is lost, in line with the fate of other Old English discourse particles in the transition to Middle English (see the discussion in van Kemenade & Los 2006 for *ha|ponne*), and *na* is found in Middle English as a negative quantifier marking constituent negation (much like *no* in present/day English as in *no man is an island*). Not as the grammaticalised version of Old English *nawiht* as discussed above, is established as the secondary negation marker and expands its domain as clause negator in the course of the Middle English period. During the early Middle English period, it increases in use (for details, see Jack 1978a–c, and Iyeiri 2001). The use in contrastive contexts characteristic of Old English *na* in V to C contexts seems to be largely lost. I will assume, therefore, that the high negation position in V to C contexts is best characterised as NegP in Middle English. What is maintained in Middle English is the distinction between V to C contexts and non-V to C contexts.

I now turn to the evidence for the higher and the lower negation position in Middle English. For the position of negation in sub-clauses, we will first consider the proposal by Haeberli & Ingham (2007): they note correctly that van Kemenade’s (2000) analysis in terms of high negation is problematic for sub-clauses in early Middle English, and they regard the high negation position as an archaic structure. Looking at the distribution of secondary negation in the first period of Middle English (AD 1150–1250), they find much evidence for a low negator that they characterise as NegP. This analysis is based primarily on the fact that patterns such as those in (36) (from Haeberli & Ingham 2007: 16) with object pronouns are found from early Middle English onward:

(36) *pt ich ne seo hire nawt heonne-ford mare*

that I not see her not henceforth anymore

‘[...] that I will not see her anymore.’

Haeberli & Ingham’s argument for a low secondary negator in sub-clauses in the M1 period is convincing: whether the subject is nominal or pronominal, Vf-Obj-not order with pronominal objects is attested on a large scale throughout the Middle English period and considerably beyond (it does not seriously decline before the middle of the seventeenth century as we will see below). And indeed, the same is true for subject-initial main clauses. However, Haeberli & Ingham’s argument faces problems with
inverted main clauses with *not*: first, in inverted main clauses with *not*, nominal subjects are still routinely found in the lower subject position. This is generally evident from the relatively high incidence of inversion with nominal subjects in V2 constructions until the late Middle English period (see van Kemenade and Westergaard to appear); in inverted main clauses with *not*, New DP subjects are found on the right of *not* until the end of the Middle English period and beyond, as the figures in Table 6 show (table 6 combines all root V to C contexts with *not*, including root questions which also begin to be found with secondary negation in Middle English).

**Table 6.** Inverted main clauses in PPCME2 with *not* in Middle English, by period

<table>
<thead>
<tr>
<th></th>
<th>DP-subject-<em>not</em></th>
<th><em>not</em>-DP-subject</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>23</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>M2</td>
<td>15</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>M3</td>
<td>17</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>M4</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

The lower position for DP subjects seems incompatible with the assumption of a negation marker below T.10 Some examples are given in (37):

(37) a. *Nalde* *nawt godd leoten his Martyrs licomes liggen*  
not-wanted not God suffer his martyrs’ corpses lie  
to *Forleosen*  
to perish  
‘God would not tolerate that his martyrs’ corpses lie to perish’

(M1, CMKATHE, 49.482)

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10. Haeberli & Ingham argue that in many cases, the nominal subject following *not* combines with an unaccusative verb and may be in SpecVP, following up van Kemenade (1997). This leaves a number of examples where a nominal subject following *not* combines with a verb that has an external argument. In these, they argue, the nominal subject must be in SpecTP, in line with the analysis here. They regard these cases, with a high position for *not*, and the nominal subject in SpecTP, as *residual* in the M1 period. We will see below, however, that in root contexts with V to C movement, nominal subjects appear in this position until well into the early Modern period.
b. Before ever man sinned, might not Will be deceived in its choosing, in its loving, or in any of its works?

(M3, CMCloud, 117.596)

Secondly and again in main clauses, the assumption of a low negation marker would seem to predict that in inverted main clauses as much as in subject-initial ones, pronominal objects occur on the left of not. This prediction is not borne out: pronominal objects in inverted main clauses precede not in any numbers only during the M1 period, less so in the M2 period. At that stage, pronominal objects could still occur in the high position for Given elements as in Old English, but this was lost except in unaccusative contexts. The figures are given in table 6, with some examples in (38). Although such examples are not necessarily incompatible with a low position for not, they contrast in several ways with non-V to C contexts. Admittedly, the overall number of V to C movement contexts with a subject and an object pronoun is not very high. Several factors account for this: the first of these is that the very frequent negative-initial clause pattern introduced by ne + finite verb is declining after the M2 period, which severely reduces the number of V to C contexts over the course of the Middle English period. Furthermore, secondary negation only very sporadically occurred in questions in Old English and only begins to do so from the early Middle English period onward (Jack 1978a-b-c). But if we consider the pattern itself, there is no reason why the object pronoun should not readily appear on the left of not if the position for not is low. What we see, however, is that object pronouns may occur there during the M1 and M2 periods, but the last example of this pattern is in the M3 period. We could ascribe this to the fact that object shift to a higher position comes to be restricted to contexts with movement of the lexical finite verb, to a higher functional position, e.g. V to C. But movement of lexical finite verbs was still alive and kicking in the M3 period and only begins to decline in the course of the early Modern period. In contrast, we will see below in Table 7 that in non-V to C contexts, object pronouns robustly precede not until well into the early Modern period and beyond. With this in mind, we turn to object pronouns on the left of not, where I claim that not is in the high position:

11. Will is spelt with a capital here because it is allegorically personified.
Table 7. Middle English inverted root clauses with object pronoun preceding *not* in PPCME, per period

<table>
<thead>
<tr>
<th>Period</th>
<th>V-S-Opro-not</th>
<th>V-S-not-Opro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1 AD 1150–250</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>M2 AD 1250–1350</td>
<td>7</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>M3 AD 1350–1420</td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>M4 AD 1420–1500</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

(38) *why pan fyndes pou hym noght?*  
Why then find you him not? (M24, CMROLLEP, 76.214)

We now contrast this with non-V to C contexts, where object pronouns precede *not* in robust numbers until the end of the early Modern English period. The figures in table 6 therefore show that the high position for the object pronoun is in the topic area preceding the high secondary negator in root V to C contexts, and not that of an object pronoun preceding a low secondary negator.

Object pronouns preceding *not* in non-V to C contexts persist robustly in pre-*not* position to the end of the early Modern period and beyond. This has been analysed on a par with the object shift pattern well-known from the Scandinavian languages (Holmberg 1986; for a treatment of early Modern English, see Roberts 1996). In these analyses, object shift is taken to be contingent on V-movement: the object occurs on the left of NOT only if the finite verb has been moved to T.12 The pattern dies out gradually as the result of progressive loss of V to T movement and its incompatibility with auxiliaries, including periphrastic DO, which is strongly on the rise during this period (see e.g. Kroch 1989); Table 7 includes cases

12. Note, however, that the alternative pattern with Subj-Vf-not-Opro, where Vf represents a lexical finite verb in Table 7, would have to be derived by V to T movement as well. This suggests that V to T movement allows object shift, but object shift is not contingent on V to T movement.
with lexical finite verbs only, and it shows that object pronouns dominantly precede *not* as long as the pattern is around, which is beyond 1700.

**Table 8.** The order of finite verb, *not* and object pronoun in main clauses without V to C movement in late Middle English and early Modern English, per period

<table>
<thead>
<tr>
<th></th>
<th>Subj-Vf-Opro-not</th>
<th>Subj-Vf-not-Opro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M4</strong>&lt;br&gt;AD 1420–1500</td>
<td>26 (66.7%)</td>
<td>13</td>
<td>39</td>
</tr>
<tr>
<td><strong>E1</strong>&lt;br&gt;AD 1500–1569</td>
<td>59 (62.1%)</td>
<td>36</td>
<td>95</td>
</tr>
<tr>
<td><strong>E2</strong>&lt;br&gt;AD 1570–1639</td>
<td>88 (72.7%)</td>
<td>33</td>
<td>121</td>
</tr>
<tr>
<td><strong>E3</strong>&lt;br&gt;AD 1640–1710</td>
<td>11 (73.3%)</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

I conclude from these sets of facts that in Middle English, as in Old English, the position for secondary negation in root clauses with V to C movement is higher than that in other contexts. The analysis advanced for this discrepancy in Old English seems entirely compatible with the facts as discussed here for Middle English: the secondary clausal negator in questions is in the specifier of a high functional head that separates Given from New material; in the course of the Middle English period, the position on the left of high *not* becomes restricted to pronominal subjects.

The negative feature of this high Neg is valued by an operator in C, as in (39), where we assume that an interrogative operator is compatible with this:

(39) \([CP\ Op\ [C0\ Vf]\ [\ topic\ area\ [NegP\ not\ [NegO\ Vf]\ [\ldots\ Vf]]]\]

### 4.1. *Not* becomes a negative head

What we have seen here is a contrast between root V to C contexts and other contexts that is pervasive throughout the history of English. This has become clear when we consider in detail the properties of *na* in Old English, contrasting V to C contexts with others. This highlights the fact that the contrast between these two types of environments has been remarkably stable over time. Table 8 gives the figures for the position of pronominal subjects with respect to *not*, and they show that this relic of
discourse-flexible grammar is still robustly attested at the end of the early Modern period.\textsuperscript{13}

Table 9. The order of pronominal subject and not in root V to C contexts in late Middle English and early Modern English

<table>
<thead>
<tr>
<th></th>
<th>Vf-Spro-not</th>
<th>Vf-not-Spro</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>M4 AD 1420–1500</td>
<td>41 (91.1%)</td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>E1 AD 1500–1569</td>
<td>188 (79.3%)</td>
<td>49</td>
<td>237</td>
</tr>
<tr>
<td>E2 AD 1570–1639</td>
<td>185 (86.4%)</td>
<td>29</td>
<td>214</td>
</tr>
<tr>
<td>E3 AD 1640–1710</td>
<td>66 (53.7%)</td>
<td>57</td>
<td>123</td>
</tr>
</tbody>
</table>

(40) a. "\textit{Damsel, knowyst pu not me?}"
\hspace{1em} ‘Damsel, don’t you know me?’ (M4, CMKEMPE, 118.2727)

b. \textit{knowe not ye how ye mysdeled on the plays?}
\hspace{1em} ‘Don’t you know how you cheated on the plays?’
\hspace{1em} (M4, CMREYNAR, 9.82)

The positional flexibility of subjects which we here ascribe to their information status started being lost towards the end of the Middle English period, as noted by van Kemenade (2000), following up Rissanen (1994, 1999). The four examples for M4 in the second column of table 8 represent the first instances of the final step in the grammaticalization of \textit{not}, that of becoming a negative head. The analysis for the development apparent in table 8 is the following: once \textit{ne} as a negative head had been lost in the course of the Middle English period, \textit{not} came to be incorporated with the finite verb on its way to C. The NegP format provides an insightful account of this: Once \textit{ne} has been lost as a negative head,

\textsuperscript{13} The finite verbs in Table 8 comprise lexical finite verbs as well as auxiliaries. As the loss of movement of finite lexical verbs to a higher functional position is lost over the course of the early Modern period (Kroch 1989), the pattern becomes restricted to auxiliaries, as noted in particular for \textit{do} in Warner (2005).
not begins to show signs of assuming negative head status. In a structure like (40), when not becomes a head, it incorporates with the finite verb:

(41) \[CP [C_0 \text{Vf-not}] [\text{topic area} [\text{NegP} [\text{Neg}_0 \text{Vf--noi}] [\ldots \text{Vf}]]]\]

This process, essentially the rise of negative contraction, progresses further over the late modern period (Rissanen 1999) and progressively obscures the last remnants of the syntactically articulated left periphery found in V to C contexts with secondary negation spanning the earlier history of English.

One implication of my analysis here is that the rise of negative contraction in negative questions, for which the figures in Table 8 provide evidence, is a separate development from negative contraction in non-V to C movement contexts. In negative questions as in (40), high not becomes a head element and comes to be syntactically incorporated with the finite verb as it is undergoes V to C movement via intermediate heads including Neg°. This is a change that starts in late Middle English, and progresses over the early Modern period, becoming restricted to auxiliaries in tandem with the loss of movement of lexical finite verbs. In non-V to C contexts, such as negative declaratives with a low negator as in Table 7, negative contraction arises as a result of the loss of the object shift pattern, by which finite verb and not become linearly adjacent. Note here too, that the object shift pattern is increasingly outnumbered by auxiliaries in T (including periphrastic do), which always yield Aux-not order. The date of this change must be later: the loss of V to T movement and the rise of periphrastic do are to be dated well into the early Modern period (Kroch 1989; Warner 2005), and the evidence from Table 7 shows that both patterns involving V to T movement do not shown dwindling numbers before the E3 period (late seventeenth century). This provides support for my analysis in terms of two differentiated positions for secondary negation.14

5. Conclusions

The account in this paper illuminates various aspects of secondary negation in the history of English. First, it gives more depth to the status and position of na as a secondary negator and a marker of contrast in Old English, by identifying a high position for na which seems to be restricted

14. Some independent support for this can be found in Han (2000) and Han & Kroch (2000), who study the rise of periphrastic do in imperatives.
to root V to C contexts, and a handful of contexts where a clause with *na* is somehow contrasted with the discourse. A second result is that the account here reconciles two ends of the debate on the position of secondary negation: where van Kemenade (2000) makes a case that the position for secondary negation is high, and Haeberli & Ingham (2007) show that in early Middle English, the position for *not* is low in most contexts. I have shown that there is a systematic and pervasive distinction between the position of secondary negation in root V to C contexts and other contexts. In Old English, this higher position is associated with contrastive negation, but allowed for clause negation as well. In Middle English, this position becomes a high clause negation position that we here continue to dub NegP. Further research will have to show how the high position of contrastive negation in Old English compares with the behaviour of other discourse particles and their role in clause structure.

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