

Verb Movement in Middle English Infinitives

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Abstract

This paper discusses the infinitival verb movement in Middle English and Early Modern English within the Minimalist Program advocated by Chomsky (1993, 1995). A close investigation of negative infinitives reveals that three types of word order were possible till the sixteenth century: (i) not-to-V order, (ii) to-not-V order and (iii) to-V-not order. The last type of word order is the case of infinitival verb movement. It is shown that this movement is related to the nominal feature of the infinitival morpheme (i.e. -en/-e), and that the weakening and subsequent loss of the infinitival morpheme caused the loss of the infinitival verb movement.

Keywords: infinitival verb movement, negative infinitive, infinitival morpheme, D-feature

1. Introduction

The aim of this paper is to discuss the infinitival verb movement in Middle English and Early Modern English (henceforth ME and EModE, respectively). It is well-known that finite verbs can undergo overt movement in early stages of English. According to Han (1999), infinitival verbs in Middle English can also move overtly. As we will see later, however, her observation is not entirely accurate, and her analysis is not without problems either. It is widely accepted that the position of the verb relative to the negator is one of the diagnoses for verb movement: if the infinitival verb precedes the negator, it is an indication of infinitival verb movement. This paper conducts a survey on negative infinitives in ME and EModE, by investigating *The Penn-Helsinki Parsed Corpus of Middle English* (Kroch & Taylor (1995)) and *The Oxford English Dictionary* (henceforth *PPCME* and *OED*, respectively). It is shown that three types of word order were possible till the sixteenth century: (i) *not-to-V* order, (ii) *to-not-V* order and (iii) *to-V-not* order, and that the last type of word order is the case of infinitival verb movement. Since only the first two types of word order are possible in Present-day English, it is speculated that the infinitival verb movement was

lost in the course of the development of English. The question is why and how the infinitival verb movement was lost. The answer lies in what follows. This paper also reveals the syntax of the verb movement in ME infinitives, assuming the classical version of the Minimalist Program advocated by Chomsky (1993, 1995) and ameliorating the analysis made by Han (1999). Specifically, this paper proposes that the infinitival verb movement in ME is related to the nominal property of the infinitival morpheme. This proposal also enables us to account for the loss of infinitival verb movement along with the loss of the infinitival morpheme in EModE.

This paper is organized as follows: §2 shows the facts of infinitives in ME and EModE, concluding that the infinitival verb movement was already nonexistent in the seventeenth century; §3 reviews the analysis made by Han (1999) and proposes an alternative; §4 discusses the loss of the infinitival verb movement in terms of the loss of the infinitival morpheme; §5 concludes this paper.

2. Basic Facts

By investigating *PPCME*, Han (1999) observes that two types of word order were possible in ME negative infinitives, namely *not-to-V* order and *to-V-not* order. Assuming that the negator can appear in two different fixed positions, namely above and below the infinitival marker, she considers the *to-V-not* order as a case where the verb movement has taken place, and concludes that the infinitival verb movement was obligatory in ME. The following examples are taken from *PPCME*:

- (1) *NOT TO V*
- a. hwerof chalengest þu me. þe appel is forbode me þt ich loki on to eote
[**naut to bihalden**]. þus walde eve inoche raðe hebben ionswered.
(ANCRIW, II. 44.402/ *PPCME*)
 - b. þet ne is na3t mete þet is to þe herte [to gromes / **ne to yeue**. ne to
piecaille. ne to cheuaille. ne to cherles. ac to noble herten and gentil. an
cortays. and clene]. (AYENBI, I, 112.239/ *ibid.*)
 - c. but a beem in þer owne y3e þenkes þey not on; for þer wyt is set [to
spuyle and to acusen and **not for to helpen** hem ne oþure men], and
herfore þer coueytise blendiþ hem þus. (WYCSEER, I, 239.66/ *ibid.*)
 - d. y conceve hit proved afterwardis that the answeris to oure articulis [**not
to be** spoke of]. (CMPRIV, SHILLET, 12.82/ *ibid.*)

(2) *TO V NOT*

- a. And herfore monye men vson wel [**to come not** in bedde wiþ schetis, but be hulude aboute þe bed, and rison anon whonne]
(WYCSER, I, 479.641/ *PPCME*)
- b. Poul bygynneþ [to sture þus [to take heed to Godus tyme, and **to leese not** þis tyme, leeuynge to disserue blisse]].
(WYCSER, I, 475.574/ *ibid.*)
- c. þat he doos [**to sorow nocht** for hys syn] as he sulde do; [**to dispoos** hym **nocht** and if **to use it nocht** als ne **to kepe it nocht**];
(ROLLFL, 99.261/ *ibid.*)
- d. God, of his grete merci, 3eue to vs grace [to lyue wel, and to seie the thruth in couenable manere, and acceptable to God and his puple, and **to spille not** oure tyme],
(PURVEY, I, 56.73/ *ibid.*)

For *not-to-V* order, Han has found ten instances in ME3 (1350-1420) and four instances in ME4 (1420-1500), whereas for *to-V-not* order, he has found four instances in ME3 and ten instances in ME4. According to my survey, however, the numbers of instances found by Han are not entirely accurate. There are some instances missing in Han's calculation.¹ According to the result from *OED*, moreover, one more type of word order was possible in ME negative infinitives, namely *to-not-V* order. Although only the coordinated *to-not-V* order is attested in *PPCME* (hence ambiguous in fact), I have found some single occurrences of the *to-not-V* order in *OED*, and some are also given in Visser (1966) as instances of split infinitives:

(3) *TO NOT V* (FROM *PPCME*)

Honurabliche as to God, þat is to siggen þat þou 3iue þin entent [**to don alle** þe dedes to honour of God, and **nou3t** a3eyn his wille **don** wiþ eny of þi fiue wittes, as wiþ Si3 of e3en, Herynge of Eren, Swolewynge of Tonge, Smellynge of Neose, Touchynge of honden, Gon or stonden, Liggen or sitten].
(EDVERN, 240.42/ *PPCME*)

(4) *TO NOT V* (FROM *OED* AND VISSER (1966))

- a. It is good [**for to not ete** fleisch, and **for to not drynke** wyn], nether in what thing thi brother offendith
(1382 Wyclif Rom. xiv. 21/ *OED*)

¹ Han (1999) has excluded instances of the purpose clause, but even if the purpose clause is excluded, some instances are still missing from his calculation. I have included purpose clauses as well in my calculation.

- b. If thei be considerid, tho chapitres schulen be seen [**forto not repugne**
bitwixe hem silf]. (<c>1449 Pecoock Repr. iii. xix. 408/ ibid.)
- c. [**To Nott moghe**]: require, non posse.
(<c>1481 Catholicon Angl. 265. 2/ Visser (1966: 1040))
- d. Yf þou wolt lerne & can eny þinge profitably, loue [**to not be known**]
and to be accountyd as nought. (<c>1500 tr. Imit. Chr. 4. 7/ ibid.)

Thus three types of word order were actually possible in ME negative infinitives: (i) *not-to-V* order, (ii) *to-not-V* order and (iii) *to-V-not* order. We can conclude then that the infinitival verb movement in ME was not obligatory, but optional because the infinitival verb could appear either before or after the lower negator. The following tables indicate the number of instances attested in *PPCME* and *OED*:

(5) *THE PENN-HELSINKI PARSED CORPUS OF MIDDLE ENGLISH*

	<i>NOT (FOR) TO V</i>	<i>(FOR) TO NOT V</i>	<i>(FOR) TO V NOT</i>
ME1 (1150-1250)	1	0	0
ME2 (1250-1350)	2	0	0
ME3 (1350-1420)	12	1 (1)	5 (2)
ME4 (1420-1500)	10	0	12 (2)
TOTAL	25	1 (1)	17 (4)

(6) *THE OXFORD ENGLISH DICTIONARY*

	<i>NOT (FOR) TO V</i>	<i>(FOR) TO NOT V</i>	<i>(FOR) TO V NOT</i>
1150-1250	2	1	0
1250-1350	12	0	2
1350-1420	128	8	13
1420-1500	251	4	8
1500-1600	1142	3	9 [5]
1600-1700	1699	3	12 [5]
TOTAL	3234	19	44

The number in the round brackets in (5) shows the instances of coordinated negative infinitives where *to* is elided in the second conjunct (hence the word order of the second conjunct is *and-V-not*), and the number in the square brackets in (6) shows the instances of *be* in negative infinitives. For coordinated negative infinitives of *to-not-V* order, see (3). Followings are some examples of coordinated negative infinitives of *to-V-not* order attested in *PPCME*:

- (7) a. þe toþir maner o mekenes is, sais sain benet, [**For to** hate yure ahen
propir wyl, **And fulfil noght** yure langing, bot do godis wylle, and his
desire fulfille]; (BENRUL, 12.355/ *PPCME*)
- b. and he hath nede [**to** lyue a clene lif, and be ful deuout in preiers, **and
haue not** his wit] that the Holi Spiryte, autour of wisdom, and kunnyng,
and truþe, dresse him in his werk, and suffre him
(PURVEY, I, 56.127/ *ibid.*)
- c. And what wrechednes it es, [**to** have þe name and þe habet of halynes,
and be noght so, bot cover pride, ire, or envy under þe clapes of criste
barnhede]! (ROLLFL, 88.53/ *ibid.*)
- d. Ha! What it es mykell, uncertain [**to** be worþi lovyng, **and be noght**
loved]! (ROLLFL, 88.53/ *ibid.*)

It is important to be noted here that the *to-V-not* order during the seventeenth century attested in *OED* cannot be considered as the cases where the infinitival verb movement has taken place. I have found five instances with *be* out of twelve negative infinitives of *to-V-not* order. The rest of the attested instances, namely the *to-V-not* order with lexical verbs, are cases of either *not* (and its variants) functioning as a constituent negator or *nought* (and its variants) functioning as a direct object with the meaning 'nothing', hence the *to-V-not* order with lexical verbs in the seventeenth century cannot be the instance of infinitival verb movement.² Turning back to the case of *be*, the *to-V-not* order is still possible with the auxiliary *have* and *be* in Present-day English (Pollock (1989) and Iatridou (1990)). Iatridou (1990), contra Pollock (1989), argues that the *to-V-not* order with the auxiliary *have* and *be* in Present-day English cannot be derived by verb movement because the scopal property of *not* in the *to-V-not* order differs from that in the *to-not-V* order. Consider the following sentences:

- (8) a. To not have played football for many years is a disadvantage in a major game.

² Out of twelve instances of *to-V-not* order, I have found four instances of *not* functioning as a constituent negator and three instances of *nought* functioning as an object. Relevant examples are given in (i) and (ii) for the former case and the latter case, respectively:

(i) Which we shall labour [to induce *not* from postulates and entreated Maxims].
(1646 Sir T. Browne Pseud. Ep. 296/ *OED*)

(ii) Experience, that great Teacher, tels us [to be *nought*], at all times to undertake for health.
(1658 A. Fox tr. Wuml>rtz' Surg. ii. i. 47/ *ibid.*)

- b. To have not played football for many years is a disadvantage in a major game.

(Iatridou (1990: 574))

According to Iatridou (1990), (8a) is ambiguous while (8b) is not: in (8a), the quantifier *many* can have both wide and narrow scope with respect to *not* since *not* c-commands *many*; in (8b), *many* can only have wide scope since *not* does not c-command *many*. This means that *not* in (8a) occupies the position where it can c-command into the adjunct, whereas *not* in (8b) occupies the position where it cannot c-command into the adjunct. If (8b) is derived from (8a) by the movement of *have*, the scopal ambiguity/unambiguity of *not* in infinitives cannot be explained. Hence the five instances of *be* in the *to-V-not* order during the seventeenth century attested in *OED* cannot be regarded as the consequence of infinitival verb movement, but as base-generation of *not* after *be*. It can be concluded then that the infinitival verb movement was already nonexistent in the seventeenth century and that it was lost during the sixteenth century.³

We have seen so far that infinitival verb movement had been possible till the sixteenth century. There is actually another piece of evidence that suggests the infinitival verb movement in ME. It is widely accepted that the position of adverbs can be a diagnosis for verb movement. If the VP-adverb appears between the transitive verb and its direct object, then this word order indicates that the verb has moved out of VP, leaving its direct object stranded. I have found several instances of this case in ME infinitives:

(9) *TO V ADV DP*_{OBJECT}

- a. for þah þis schenðlac & te grure of ham were unimete pine; neauer nere nan oðer pine bute [to iseon eauer [þe unseli gastes. & hare grisliche schape]. biseon on hare grimfule. & grurefule nebbes. & heren hare rarunge]. (SAWLES, 173.107/ PPCME)

³ However, a mystery still remains: out of 108 instances of negative infinitives attested in *The Paston Letters* (1422-1509), I have found only two instances of the *to-V-not* order, and they are both instances of *be*. This might be due to the absence of the *to-not-V* order: it is not attested at all in *The Paston Letters*. Compared with the frequency of the *not-to-V* order (i.e. 106 instances), the appearance of *not* following *to* might have been highly unlikely in *The Paston Letters*. I have no interesting account for this fact at the moment.

- b. what spiryt makith sithen idiotis hardi the foure greete doctouris dursten neuere do this? [**to translate now [the bible]** into English], This replicacioun is so lewid, that it nedith noon answer, no but stillnesse,
(PURVEY, I, 56.92/ PPCME)
- c. And the secunde cause is this, that sothly me semith better than [**to writen** unto a child **twyes [a god sentence]**], {it seems} he forgete it onys.
(ASTRO, 662.C2.15/ PPCME)
- d. Þe oþur was þat God wold 3eue hur þat grace, to hur þat was þe modur of God [**to do euer [plesaund seruyse]** to God].
(ROYAL, 256.260/ PPCME)

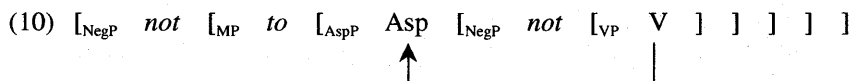
To sum up, we have seen that three types of word order were possible in negative infinitives in ME and the sixteenth century: (i) *not-to-V* order (cf. (1)), (ii) *to-not-V* order (cf. (3) and (4)) and (iii) *to-V-not* order (cf. (2) and (7)). Concerning the last two types, the difference in word order is derived from the optional movement of infinitival verbs beyond the lower negator. We have also seen that the *to-V-not* order in the seventeenth century cannot be the case of infinitival verb movement (see footnote 2). It was lost during the sixteenth century.

3. An Analysis

In accounting for the facts of negative infinitives in ME and EModE described in the previous section, I will review the analysis made by Han (1999) and propose an alternative in this section.

3.1. Han (1999)

To begin with, let us look at the phrase structure that Han (1999) proposes. In order to account for the facts of negative infinitives in ME, Han makes three assumptions: (i) the infinitival clause lacks Tense Phrase (TP), and the infinitival marker, which is usually assumed to be a head of TP in the literature (Chomsky (1981) among others), is a head of Mood Phrase (MP); (ii) there is Aspect Phrase (AspP) between MP and VP to whose head infinitival verbs obligatorily move; (iii) there are two distinct Negative Phrase (NegP) in a clause, one directly above MP and the other directly below MP, and either of them can be headed by *not*. With these assumptions, the phrase structure of infinitival clauses can be schematized as follows:



(cf. Han (1999: 12))

Now if the lower negation is instantiated, because the infinitival verb movement is obligatory, the *to-V-not* order is yielded (cf. (2) and (7)). On the other hand, if the higher negation is instantiated, the *not-to-V* order is yielded, irrespective of the infinitival verb movement (cf. (1)).

It may seem that Han's proposal can correctly predict the behavior of ME negative infinitives, but it is not without problems. There are at least three problems concerning the assumptions made by Han: one is empirical and the other two are conceptual. Concerning the first assumption, Han argues that the maximal projection of infinitival clauses is MP because infinitives can carry an irrealis meaning. This is not always the case, however. It has been often argued that only the subset of infinitives can carry an irrealis meaning: only control infinitives, but not ECM/raising infinitives, can carry an irrealis meaning (cf. Stowell (1982), Martin (1992, 1996) and Bošković (1996, 1997)). Thus if *to* is a head of MP, it is wrongly predicted that the existence of *to* always contributes to the irrealis meaning of infinitival clauses. Concerning the second assumption, we have seen in the previous section that the infinitival verb movement cannot be obligatory (cf. (3) and (4)). Under the minimalist assumptions, moreover, it is not clear at all why the infinitival verb must move to Asp. Movement has to be feature-driven according to Chomsky (1993, 1995). Finally, if the lower negator also heads NegP, it must block the infinitival verb movement (cf. Minimal Link Condition in Chomsky (1995)). But the fact is that it is possible, yielding the *to-V-not* order.

Thus the proposal made by Han (1999) has three problems, and it cannot be maintained. In the following subsection, I will propose an alternative.

3.2. An Alternative

In order to account for the facts of negative infinitives in ME and EModE, we have just discussed the proposal made by Han (1999) and discovered three problems which surface on it: (i) the infinitival marker *to* cannot be a head of MP; (ii) the infinitival verb movement must be optional, must be feature-driven, and cannot target Asp; (iii) the lower negator cannot be a head of NegP. I will make some alternative proposals to each of the problems.

First, because the infinitival marker cannot always contribute to the irrealis meaning of infinitives, I will follow the traditional convention and assume that the

infinitival marker is a head of TP (Chomsky (1981) among others).

Second, as generally assumed in the literature, infinitives in ME and EModE had nominal properties, and they carried the infinitival morpheme (i.e. *-en/-e*) which was the typical inflectional ending of nouns (Lightfoot (1979), Guasti (1990), Roberts (1993) and Tanaka (1994)). According to Tanaka (1997), moreover, the infinitival marker had prepositional properties in earlier stages of English and it could precede infinitives, hence another nominal property of infinitives. Thus it seems natural to propose that infinitival verbs in ME and EModE carries a nominal formal feature (i.e. D-feature) along with the verbal formal feature (i.e. V-feature). In addition, I will follow Guasti (1990), Kayne (1991) and Tanaka (1994) in assuming that there is a functional projection which is responsible for the infinitival morpheme. I will call it Infinitive Phrase (InfnP), following Kayne (1991). I propose further that Infn also carries a D-feature. Because the D-feature carried by Infn is a categorial feature of the functional head, it can be strong or weak, depending on the parametric value (cf. Chomsky (1995)). In either case, this D-feature can be checked off against the D-feature of infinitival verbs. In other words, the D-feature of Infn can be checked off either by the movement of the infinitival verb prior to Sell-Out or by the movement of the D-feature at LF.

Third and finally, I will follow Han (1999) in assuming that there are two distinct NegPs above and below the infinitival marker. However, I depart from his assumption with respect to the status of the lower negator. According to Ishikawa (1995) and Frisch (1997), the negator *not* changed from an adverb to a head during ME and EModE: *not* was also used as an adverb during ME and EModE.⁴ Now If adverbs are licensed or hosted in the specifier position of the corresponding functional head which has the same semantic content, as Cinque (1999) and Mizuno (1999a, 1999b) argue, then adverbial *not* should also be hosted by the corresponding functional head. Thus I will follow Ishikawa (1995) in assuming that adverbial *not* appears in the specifier position of NegP. I will also follow Ishikawa (1995) in assuming that the head *not* appears in the head position of NegP. My proposal on the negator, however, differs from Ishikawa's in that adverbial *not* appears in the specifier position of lower NegP and the head *not* appears in the head position of higher NegP.⁵ This proposal seems

⁴ The period of this change argued in Ishikawa (1995), in fact, differs from that in Frisch (1997): Ishikawa argues that this change started during the sixteenth century, whereas Frisch observes that it started at least during the late fourteenth century. In either case, it is clear that adverbial *not* was in use during ME and EModE.

⁵ Zanuttini (1997) makes a similar proposal to Romance languages, arguing that the higher negator has the status of a head while the lower negators have the status of a phrase in the specifier position.

- (12) And herfore monye men vson wel [**to come not** in bedde wiþ schetis, but be hulude aboute þe bed, and rison anon whonne]

(WYCSER, I, 479.641/ *PPCME*)

Since unaccusative verbs cannot check the case feature of their object DP, they don't require the functional head *v*. If so, the landing site of infinitival verb movement in (12) cannot be *v* because the infinitival verb is an unaccusative verb. Second, the DP, which has undergone so-called object shift, precedes the lower negator but follows the infinitival verb, as in (2c), repeated here as (13):

- (13) þat he doos [to sorow noght for hys syn] as he sulde do; [**to dispoos hym noght** and if **to use it noght** als ne **to kepe it noght**];

(ROLLFL, 99.261/ *PPCME*)

It is generally assumed that the landing site of object shift is the outer specifier position of *v*P (Chomsky (1995) among others). Therefore, the landing site of infinitival verb movement in (13) cannot be *v* either. If the infinitival verb were to move to *v*, the object DP would be expected to precede the infinitival verb. Thus the landing site of infinitival movement has to be the intermediate functional head position between T and *v*, namely *Infn*.

In this section, in order to account for the word order facts of negative infinitives in ME and EModE, I have assumed that there are two distinct NegPs above and below the infinitival marker (i.e. T) and proposed that the infinitival verb optionally moves up to *Infn* for feature checking. I have also proposed that the higher negator is a head of the higher NegP while the lower negator is an adverb in the specifier position of the lower NegP. In the following section, we will turn to another fact described in §2, namely the loss of infinitival verb movement during the sixteenth century.

4. Loss of Infinitival Verb Movement

As we have concluded in §2, the infinitival verb ceased to move during the sixteenth century and this movement was already nonexistent in the seventeenth century. Strikingly, the period of this change coincides with the period of another change, namely the loss of the infinitival morpheme. According to Lightfoot (1979) and

at LF because it does not violate Procrastinate.

Guasti (1990), the infinitival morpheme was lost during the sixteenth century.¹⁰ It seems natural then to assume that there is some kind of correlation between the loss of the infinitival morpheme and the infinitival verb movement. More specifically, I will propose that the loss of the infinitival morpheme caused that of the infinitival verb movement.

In the previous section, I proposed that the nominal property of the infinitival morpheme in ME and the sixteenth century, namely the nominal feature, is checked by *Infn*. Now if the infinitival morpheme is taken away from the infinitival verb, its nominal feature (i.e. D-feature) is also taken away from the infinitival verb. Then the infinitival verb ceases to be attracted by *Infn* because it lacks its D-feature. If it is not attracted, it cannot move. In terms of language acquisition, we can say that the child learning the relevant language cannot deduce that infinitival verbs have a nominal property after the weakening and subsequent loss of the infinitival morpheme. When the infinitival morpheme was prominent, the child could deduce that infinitival verbs had a nominal property. But as it was weakened and subsequently lost, he/she ceased to make the previous deduction, and began to deduce that infinitival verbs had only a verbal property (i.e. V-feature). Thus the weakening and subsequent loss of the infinitival morpheme caused the infinitival verb to cease to move.¹¹

There is still a question to be answered: whether there is a functional projection *Infn* after the loss of the infinitival morpheme. The answer is negative: as the infinitival morpheme was lost, it was also lost or, in proper terms, ceased to be instantiated. If we follow Baker's (1985) Mirror Principle, the existence of a certain morpheme indicates the existence of its corresponding functional head that checks the feature of the relevant morpheme (see also Thráinsson (1996)). To put it conversely, if the relevant morpheme does not exist, its corresponding functional head does not exist either. So after the loss of the infinitival morpheme, *Infn* ceased to be instantiated. In other words, the child also ceased to deduce the existence of *Infn*, as

¹⁰ The exact period of this loss in Guasti (1990) is slightly different from that in Lightfoot (1979). Guasti (1990) says the infinitival morpheme was lost around the end of the sixteenth century, whereas Lightfoot (1979) says it disappeared by the mid-sixteenth century. Since there is no indication of adequacy for one over the other, I simply assume here that the change occurred during the sixteenth century.

¹¹ The existence of the infinitival morpheme does not necessarily mean the existence of the infinitival verb movement. For example, Scandinavian languages also have their own infinitival morphology such as *-a* in Icelandic and *-e* in Danish (cf. Vikner (1997)). But only Icelandic forces the infinitival verb movement, and Mainland Scandinavian languages such as Danish, Norwegian and Swedish do not allow it (cf. Thráinsson (1993) and Jonas (1996)). If the D-feature of *Infn* is strong or if it is weak but can tolerate an unforced violation of Procrastinate, the infinitival verb can overtly move to *Infn* for feature checking. The former applies to Icelandic, and as we have seen, the latter applies to ME.

the infinitival morpheme was weakened and subsequently lost.

Before we close the discussion, one puzzle should be noted. According to the result from *PPCME*, the number of the attested *to-V-not* order increases from ME3 to ME4 (see (5)). Thus five instances of the *to-V-not* order have been found in ME3 while twelve instances have been found in ME4. If the infinitival verb movement disappeared during the sixteenth century, the *to-V-not* order should have been decreasing in number from ME3 to ME4. Tomoyuki Tanaka (p.c.) pointed out to me that this discrepancy might be due to the works of Richard Rolle. Out of twelve instances of the *to-V-not* order found in ME4, nine instances are from the works of Richard Rolle. The manuscripts of the works by Richard Rolle were written during ME2 while they were published during ME4. If we classify the instances from the works of Richard Rolle in ME2, the number of the *to-V-not* order decreases gradually from ME2 to ME4. But this is nothing more than a speculation, and still remains as a puzzle.

To sum up, I have explained the loss of infinitival verb movement. I have argued that it was caused by the loss of the infinitival morpheme. The weakening and subsequent loss of the infinitival morpheme prevented the language learner from deducing the existence of *Infn* and the D-feature of infinitival verbs. Instead, he/she deduced that infinitival verbs had only the V-feature. This explanation can be made possible only on the assumptions that infinitival verbs in ME and the sixteenth century carried the D-feature as well as the V-feature, and that the former can be attracted by the D-feature of *Infn*.

5. Conclusion

In this paper, I have conducted an empirical survey on infinitival verb movement in ME and EModE by investigating *PPCME* and *OED*, and concluded that three types of word order were possible in negative infinitives in ME and in the beginning of EModE: (i) *not-to-V* order, (ii) *to-not-V* order and (iii) *to-V-not* order. The last type of word order was shown to be the indication of infinitival verb movement. I have also proposed that the nominal property of the infinitival morpheme (i.e. D-feature) and the existence of the functional head which is related to the infinitival morpheme (i.e. *Infn*) had been responsible for infinitival verb movement, and then argued that the weakening and subsequent loss of the infinitival morpheme caused the loss of infinitival verb movement during the sixteenth century. Thus at least since the seventeenth century, only the *not-to-V* order and *to-not-V* order have been possible for negative infinitives (except for *have/be* and constituent negation). And of course they are also possible in Present-day English.

Concerning these two types of negative infinitives in Present-day English, there is one issue to be addressed. It has been often argued that one of the two types of word order is derived from the other by optional movement of the infinitival marker (cf. Beukema and den Dikken (1989), Pollock (1989) and Ouhalla (1991)). But it would be wrongly predicted in this case that the V-*not-to* order was possible while the infinitival verb movement was still existent. This will be indirect support for positing two distinct NegPs. The issue is whether the lower negator is a head or phrase in Present-day English. Compared with the *not-to-V* order, the *to-not-V* order is extremely rare in number. If we take the *not* in the *to-not-V* order, namely the lower negator, to be the relic of the adverbial *not*, this rarity can be explained. This issue will be the topic of my next survey.

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