1. Introduction

In the study of generative grammar, much effort has been devoted to clarifying the syntactic and semantic properties of small clauses and bare infinitive complements in PE, as illustrated in (1) and (2), respectively:\(^1\)

\[\text{Here are the historical periods of English standardly assumed: Old English (OE) (700–1100), Middle English (ME) (1100–1500) (Early Middle English (EME) (1100–1300), Late Middle English (LME) (1300–1500)), Modern English (ModE) (1500–1900) (Early Modern English (EModE) (1500–1700), Late Modern English (LModE) (1700–1900)), and Present-day English (PE) (1900–). In what follows, I will give both glosses and translations for OE examples, only glosses for ME examples, and neither glosses nor translations for ModE examples.}\]

\[\text{Keywords: agreement, bare infinitive complement, functional category, predication, small clause}\]
Although some descriptive and generative studies observe that small clauses and bare infinitive complements have been available in all the historical periods of English (Denison (1993), Fischer et al. (2000), Kageyama (1992), and Visser (1963–1973) among others), few serious attempts have been made to provide a detailed investigation of their syntactic properties in early English. Moreover, it is tacitly assumed in the generative literature on English historical syntax that these two types of nonfinite clauses have undergone no significant syntactic changes, so that their structures have remained constant throughout the history of English.

This paper argues for the rise of functional categories in small clauses and bare infinitive complements by investigating their syntactic properties in the history of English. It is claimed that both of these nonfinite clause types have undergone morphological erosion that eventually led to the rise of functional categories, with the theory of predication playing a crucial role in relating the two changes. Therefore, the relevant cases of functional category emergence represent a morphology-driven syntactic change, and should be distinguished from grammaticalization, where lexical categories are reanalyzed as functional categories under factors like semantic bleaching. Moreover, this paper touches upon the issue of gradualness in syntactic change in terms of grammatical competition in the sense of Kroch (1989), based on the observation that the structures with/without a new functional category coexisted in both small clauses and bare infinitive complements during the transitional period of their historical development.

This paper assumes the recent framework of the minimalist program since Chomsky (2000), and the organization is as follows. Section 2 deals with the development of small clauses in the history of English. Drawing mainly on Tanaka (2003) and Tanaka and Yokogoshi (2010), it is claimed that small clauses underwent a change from the structure headed by a lexical category to the structure headed by a functional category Pred(ication) in the sense of Bowers (1993), by investigating the distribution of as, floating quantifiers, and expletive subjects. Then, in the light of the theory of predication, the rise of Pred is argued to be triggered by the loss of morphological agreement between small clause subjects and predicates. Section 3 discusses the development of bare infinitive complements in the history of English, arguing for the rise of a functional category T based on the inves-
tigation of the distribution of aspectual auxiliaries, sentential negation, and expletive subjects. It is shown that the loss of the infinitival morpheme led to the rise of T in bare infinitive complements, where the theory of predication comes into play as in the case of small clauses. Section 4 offers concluding remarks.

2. The Development of Small Clauses

2.1. The Structure of Small Clauses in PE

Let us begin by examining the structure of small clauses in PE, in order to provide a basis for the discussion of their historical development. Since the 1990s, there have been a number of generative studies postulating some functional category in PE small clauses (Aarts (1992), Basilico (2003), Bowers (1993), Cardinaletti and Guasti (1995), Starke (1995), and Svenonius (1996) among others). Among them, I follow Bowers (1993) in assuming that PE small clauses are headed by a functional category Pred, in which Pred semantically functions as a predicate operator that converts a property to a proposition function, which in turn takes an entity to form a proposition. Specifically, the following structure along the lines of Svenonius (1996) is adopted where the small clause subject is base-generated in the specifier position of its predicate and raises to Spec, PredP to satisfy the EPP feature of Pred:

(3) I consider \([_{\text{PredP}} \text{these boys}] \, [_{\text{Pred}} \, \text{NP} \, _{t} \, [_{\text{N}} \, \text{good students}]])

There are at least three pieces of evidence for the structure in (3). First, according to Bowers (1993), as in examples like (4) is a phonetic realization of Pred and hence constitutes direct evidence that the category of PE small clauses is PredP:

(4) a. I consider these boys as good students.
   b. John regards Mary as intelligent.

Second, under Sportiche’s (1988) analysis that a floating quantifier is stranded in the base position of the DP it is associated with, the grammaticality of (5), especially (5b), indicates that a small clause subject is base-generated to the right of Pred and the quantifier associated with it is stranded in its base position when it raises to Spec, PredP to satisfy the EPP feature of Pred:

\[ \text{(5) a. I consider [_{\text{PredP}} \text{these boys}] as [_{\text{NP}} \, _{t} \, [_{\text{N}} \, \text{good students}]]} \]

\[ \text{(5) b. John regards Mary as intelligent.} \]

In what follows, italics will be used in examples to mark material directly relevant for the discussion.
(5) a. We consider the men all fools/crazy. (Bowers (1993: 618))
b. (?)The rat considers the kids as all hopeless cases.
    (Starke (1995: 242))

Third, apart from a number of exceptional cases to be discussed in section 2.2.3, when a PE small clause has a clause as its only argument, expletive it obligatorily appears in the subject position, as illustrated in (6). This fact can be accounted for by assuming that expletive it is inserted in Spec, PredP because there are no elements to raise to satisfy the EPP feature of Pred:

(6) I consider *(it) possible that John will win the race.

2.2. The Syntactic Properties of Small Clauses in Early English

The previous section has argued for the PredP analysis of PE small clauses and presented three arguments for the presence of Pred: (i) the occurrence of as as a phonetic realization of Pred, (ii) a floating quantifier associated with a small clause subject that is stranded when the latter raises to satisfy the EPP feature of Pred, and (iii) the insertion of expletive it when there are no elements to raise to satisfy the EPP feature of Pred. In order to determine whether there is any evidence for Pred in small clauses in early English, this section examines the distribution of as, floating quantifiers, and expletive it, claiming that the relevant evidence for Pred began to be attested in the fourteenth century.

2.2.1. The Distribution of As

According to Visser (1963), as first appeared in small clauses in the fourteenth century, and its frequency gradually increased after EModE. This is supported by the investigation utilizing the search function of The Oxford English Dictionary (OED), 2nd ed. on CD-ROM, which pays special attention to the categories of small clause predicates following as. The table in (7) summarizes the result of this investigation, which shows the dates of the earliest examples of nominal and adjectival predicates following as in small clause complements to hold, rate, reckon, regard, and take, respectively, which have survived into PE taking small clauses with as. The relevant examples of small clause complements to hold and reckon are given in (8) and (9), respectively:
(7) The Dates of the Earliest Examples of Nominal and Adjectival Predicates Following *As* in Small Clauses

<table>
<thead>
<tr>
<th></th>
<th>hold</th>
<th>rate</th>
<th>reckon</th>
<th>regard</th>
<th>take</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP</td>
<td>1297</td>
<td>a1568</td>
<td>1387–8</td>
<td>1607</td>
<td>a1340</td>
</tr>
<tr>
<td>AP</td>
<td>1456</td>
<td>1796</td>
<td>1709</td>
<td>1706</td>
<td>c1380</td>
</tr>
</tbody>
</table>

(cf. Tanaka (2003: 303))

(8) a. NP:

Vor pur hate æsen is broþer held *as a ssreward*
for pure hate again is brother held as a scoundrel

(1297 R. Glouc. (Rolls) 5441)

b. AP:

To be estraunged from his Crafte … and to be reputed &
to be estranged from his craft and to be reputed and
holden *as straunge* from eny benyvolence of this Cite
held as different from any benevolence of this city

(1456 Coventry Leet Bk. 294)

(9) a. NP:

Fairnesse of fieldes, ne of habitacions, … maie not bee
Fairness of fields, nor of habitations, … may not be
reckoned *as riches*, that are thine owne …
reckoned as riches, that are your own …

(1387–8 T. Usk Test. Love II. v. (Skeat) I. 63)

b. AP:

Reasons … not reckon’d *as sufficient* for turning Mr. Little-
ton by his Degree

(1709 Hearne Collect. 7 Dec. (O.H.S.) II. 294)

The results above show that *as* began to appear in nominal small clauses
around 1300 and then spread to adjectival small clauses; moreover, the class
of verbs taking small clause complements with *as* was expanding during
ModE. If *as* is a phonetic realization of Pred, as argued in the previous
section, it may be inferred from this observation that Pred began to appear
in small clauses around 1300.

2.2.2. The Distribution of Floating Quantifiers

Since descriptive studies like Visser (1963–1973) do not provide any in-
formation on the distribution of floating quantifiers, let alone those in small
clauses, the following historical corpora that altogether cover the periods
from OE to EModE have been employed to collect examples with floating
quantifiers associated with small clause subjects: *The York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE), *The Penn-Helsinki Parsed Corpus of Middle English*, Second edition (PPCME2), and *The Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME). The result of this investigation is summarized in (10), followed by some representative examples:

(10) The Distribution of Floating Quantifiers in Small Clauses

<table>
<thead>
<tr>
<th></th>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>9</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

(cf. Tanaka and Yokogoshi (2010: 246))

(11) a. God xal kepyn *vs* bopen ryth wel,
God shall keep us both right well

(CMKEMPE,77.1735: M4)

b. Here shal you marke that al those squares which haue their sides al equal, may be called also foe easy vnderstandinge, likesides, as Q. and S. (RECORD-E1-H,1.B4R.79: E1)

c. The Omens you mention doe little affect mee, supposing *them all* true, which I much question, but perhaps they doe others; (PHENRY-E3-P1,337.9: E3)

Although the number of the relevant examples is small, it is observed from (10) that floating quantifiers associated with small clause subjects were never attested in OE and EME, but began to appear in M3. This means that Pred became available in the mid-fourteenth century and its EPP feature came to trigger the movement of small clause subjects.

2.2.3. The Distribution of Expletive *It*

Visser (1963) provides a long list of examples of small clauses with/without expletive *it* in early English. However, he does not make explicit how the distribution of expletive *it* in small clauses has changed in the history of English, nor does he mention when and how its insertion became obligatory except for a number of cases to be discussed below. Therefore, the same three corpora as in the investigation of floating quantifiers have been

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3 The texts of YCOE, PPCME2, and PPCEME are distributed in the following periods: O1 (–850), O2 (850–950), O3 (950–1050), O4 (1050–1150), M1 (1150–1250), M2 (1250–1350), M3 (1350–1420), M4 (1420–1500), E1 (1500–1569), E2 (1570–1639), and E3 (1640–1710).

4 Note that this is not due to the general impossibility of quantifier floating in OE and EME since the latter has been attested in finite clauses since OE, as observed by Buchstaller and Traugott (2006).
employed to examine the distribution of expletive *it* in small clauses in the history of English. The result of this investigation is summarized in (12), with some representative examples with and without expletive *it* in (13) and (14), respectively:

(12) The Distribution of Expletive *It* in Small Clauses

<table>
<thead>
<tr>
<th></th>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
</tr>
</thead>
<tbody>
<tr>
<td>With <em>it</em></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>50</td>
<td>64</td>
<td>104</td>
</tr>
<tr>
<td>Without <em>it</em></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>17(7)</td>
<td>22(11)</td>
<td>33(8)</td>
</tr>
</tbody>
</table>

(The numbers in parentheses in E1-E3 represent those of examples in which expletive *it* may not be omitted in PE.)

(cf. Tanaka and Yokogoshi (2010: 247))

(13) a. he held *it* expedient to honowr of þe blisful Trinite

he held it expedient to honor of the blissful trinity

þat hys holy werkys xulde be notifyid & declaryd to

that his holy works should be notified and declared to

þe pepil,

the people

(CMKEMPE,221.3567: M4)

b. but he that thynkethe *it* a harde thynge to agre to the conclu-

sion, it behoueth hym to shew eyther that some false thynge

hath gone before,

(BOETHCO-E1-H,99.610: E1)

(14) a. and maken hard to destroyem hem.

and make hard to destroy them

(CMWYCSER,291.1173: M3)

b. and therefore he thinketh good the Tower of London should

be taken by a sleighte,


According to this investigation, expletive *it* was never attested in OE small clauses. There is one example with expletive *it* in *Ancrene Riwle*, which belongs to M1, but this example would be exceptional, because it is a translation of the preceding Latin sentence that involves an adverbial clause, but not a small clause with a clausal argument. In M2, there are six examples of small clauses with expletive *it*, all of which come from works of Richard Rolle composed in the mid-fourteenth century. Therefore, putting aside one exceptional case in M1, it is concluded from (12) that expletive *it* began to be observed in small clauses in the mid-fourteenth century.  

Allen (1995) observes that expletive *it* has been available in finite clauses since OE, so the fact that it was never attested in small clauses in OE and EME is not due to its absence in the grammar of these periods.
Judging from (12), it might appear that the distribution of expletive *it* remains almost constant during EModE, though there is a radical increase of examples with expletive *it* in the transition from M4 to E1. However, those examples in EModE without expletive *it* must be carefully examined, because there are a number of collocations like (15) where *it* may be omitted in PE small clauses:

(15) find fit, make clear, make ready, make sure, see fit, think best, think fit, think good, think long, think proper, think right, …

(cf. Visser (1963: §§523–526))

In (12), the numbers in parentheses in E1-E3 represent those of examples in which expletive *it* may not be omitted in PE, thus excluding collocations like (15). In E1 and E2, such examples account for a relatively high proportion among those of small clauses without expletive *it* (41% and 50%, respectively). In E3, there is a substantial reduction of the proportion of examples in which expletive *it* may not be omitted in PE (24%), which shows that its distribution became rather close to that in PE by the beginning of the eighteenth century.

Since the corpora employed in the investigation of (12) do not cover the period after 1710, the following investigation of expletive *it* in small clause complements to *think* based on OED is useful to establish when *it* became obligatory in small clauses (except for collocations like (15)):

(16) The Distribution of Expletive *It* in Small Clause Complements to *Think*

<table>
<thead>
<tr>
<th></th>
<th>14c</th>
<th>15c</th>
<th>16c</th>
<th>17c</th>
<th>18c</th>
</tr>
</thead>
<tbody>
<tr>
<td>With <em>It</em></td>
<td>1</td>
<td>3</td>
<td>140</td>
<td>201</td>
<td>141</td>
</tr>
<tr>
<td>Without <em>It</em></td>
<td>6</td>
<td>6</td>
<td>81(41)</td>
<td>119(21)</td>
<td>81(3)</td>
</tr>
</tbody>
</table>

(The numbers in parentheses in 16c-18c represent those of examples in which expletive *it* may not be omitted in PE.) (cf. Tanaka (2003: 298))

According to (16), examples in which expletive *it* may not be omitted in PE occupy nearly half of the relevant examples in the sixteenth century, but the proportion of such examples decreases radically in the seventeenth century (24%). This decrease continues in the eighteenth century (4%), with the result that the omission of expletive *it* came to be virtually restricted to collocations like (15).

In summary, expletive *it* began to appear in small clauses in the fourteenth century and became obligatory during the eighteenth century, except for collocations like (15). This means that Pred became available in the fourteenth century, and its EPP feature came to trigger the insertion of
expletive *it*. However, since examples without expletive *it* were attested during EModE, the presence of Pred did not become obligatory in small clauses until the eighteenth century.

### 2.3. The Structural Change of Small Clauses and Grammatical Competition

Taking into consideration the above historical data on the distribution of *as*, floating quantifiers, and expletive *it*, it is concluded that there is no evidence for the presence of Pred in small clauses in OE and EME. This suggests that small clauses in these periods were headed by a lexical category without functional categories like Pred. The relevant evidence for Pred began to be attested in the fourteenth century, but it was not completely established until the eighteenth century, because the insertion of expletive *it* was optional from the fourteenth to the eighteenth century. This indicates that the structural change of small clauses was gradual; the structure headed by a lexical category continued to exist alongside of that headed by Pred from the fourteenth to the eighteenth century, with the latter gradually replacing the former, as schematized below:

\[
\text{(17) a. OE\textasciitilde18c: } [\text{XP } \text{DP } [X^\prime X \ldots]] \\
\text{→ b. } 14c\text{\textasciitilde: } [\text{PredP } \text{DP}_1 [\text{Pred}^\prime \text{Pred } [\text{XP } t_i [X^\prime X \ldots]]]]
\]

This would represent a case of grammatical competition in the sense of Kroch (1989), a notion which has proved to be useful in explaining gradualness and/or optionality in syntactic change within formal approaches like generative grammar (see Fuß and Trips (2001), Pintzuk (1999), Wallage (2008), and so on). According to Kroch and others, some types of syn-

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6 I follow Thráinsson (1996) in assuming that a functional category can only be postulated in the grammar of a language if there is some syntactic or morphological evidence for it in that language. Under this view on the acquisition of functional categories, Pred cannot be postulated in the grammar of OE and EME due to the lack of the syntactic properties discussed in section 2.2. Nor is there any conceptual necessity for postulating Pred in the small clauses of these periods, given the theory of predication to be presented in the next section.

7 In place of (17), it might be possible to analyze the gradual structural change of small clauses in terms of the optionality of the EPP feature of Pred, which would be responsible for the optional insertion of expletive *it* from the fourteenth to the eighteenth century. As far as I know, however, there is no empirical evidence for postulating Pred without an EPP feature in the structure of small clauses in early English; on the contrary, such a proposal will lead to the incorrect prediction that examples of small clauses with their subjects following *as* should be found in early English (e.g. *I regard as John a fool*). Therefore, in the absence of compelling evidence to the contrary, I will continue to assume that the structural change as schematized in (17) is correct and that the EPP feature of Pred has never been optional.
tactic variation reflect synchronic competition between two grammatical options, with one of the options gradually winning over the other in the course of time, yielding gradualness and/or optionality in syntactic change as observed in historical data.

If the above arguments are on the right track, two predictions will emerge concerning the distribution of the syntactic properties of small clauses in early English discussed in section 2.2. First, given that the occurrence of *as*, floating quantifiers, and expletive *it* is diagnostic for the presence of Pred in small clauses, namely the grammatical option in (17b), it is predicted that these properties may cluster together in the same texts. This prediction is borne out in the correlation between floating quantifiers and expletive *it*: among nineteen texts from PPCME2 and PPCEME in which floating quantifiers associated with small clause subjects are found, as many as fifteen texts contain examples of small clauses with expletive *it*. (Of course, the occurrence of expletive *it* does not necessarily imply that of floating quantifiers in the same texts, because the former is more frequent and attested in a greater number of texts than the latter; compare (10) with (12).) This provides good evidence that these texts have the grammatical option in (17b) that yields both floating quantifiers and expletive *it* in small clauses. Second, Kroch and others argue that grammatical competition occurs within individual speakers in the course of a gradual change, so it is predicted that the optionality of expletive *it* in small clauses is observed not only at the level of the whole corpus (or a set of texts belonging to the same period), but also in individual texts. In fact, there are thirty-six texts from PPCME2 and PPCEME that contain examples of small clauses both with and without expletive *it*, indicating that there is competition between the two grammatical options in (17) within the authors of these texts.

2.4. The Rise of Pred in Small Clauses and the Licensing of Predication

This section discusses the cause of the rise of Pred in small clauses in the light of the licensing of predication, in order to clarify the motivation for the change as schematized in (17), from the simple structure headed by a lexical category to the more complex structure involving Pred.

Since this paper assumes the PredP analysis of PE small clauses proposed by Bowers (1993) and later modified by Svenonius (1996), let us adopt the theory of predication along the lines of their work and den Dikken’s (2006) recent elaboration to the effect that predication is licensed by functional categories. In particular, I follow Svenonius (1996) in assuming that Pred is only present in small clauses and that predication is licensed by Pred in
small clauses and by T in finite and infinitival clauses. However, as we saw in the preceding sections, there is no evidence for the presence of Pred in small clauses in OE and EME, so some other mode(s) must be looked for to license their predication relations. Paying attention to the fact that small clause adjectival predicates agree with their subjects in number, gender, and case in OE, as illustrated in (18), suppose that morphological agreement serves to license their predication relations;\(^8\) it would be intuitively natural that predication relations can be read off from the morphological agreement relation between subjects and predicates even in the absence of functional categories;\(^9\)

\[
(18) \text{heo afund}e \text{ þone hring gehalne}
\]

she found the ring-M.Sg.Acc whole-M.Sg.Acc

‘she found the ring whole’

(Ælfric Hom. II. 28 / Visser (1963: 553))

According to Lass (1992) and Nakao (1972), adjectival inflection gradually declined during ME; for strong adjectival declension relevant for small clauses, the gender and case endings of adjectives were lost during EME and the number distinction was finally lost during LME.\(^{10}\) This led to a situation where small clause subjects no longer showed morphological agreement with their predicates. It can be suggested that this caused the rise of Pred in small clauses as a new means of licensing predication.

Let us now introduce Chomsky’s (2008) analysis of participle agreement in order to implement the above scenario within the minimalist framework. As illustrated in (19), passive participles and their objects show morphological agreement in languages like Icelandic:

\[
(19) \begin{align*}
\text{a. Það virtust hafa verið keyptir þrír} \\
\text{there seemed have been bought-M.Pl.Nom three} \\
\text{stólar á uppboðinu} \\
\text{chairs-M.Pl.Nom at the auction}
\end{align*}
\]

‘There seemed to have been three chairs bought at the auction.’

---

\(^8\) This idea is adapted from some previous studies proposing the licensing of predication by Agr (Guéron and Hoekstra (1995) and Dalmi (2005)).

\(^9\) The following abbreviations for morphological information are used in the glosses of (18) and (19): M = masculine, Sg = singular, Pl = plural, Acc = accusative, Nom = nominative.

\(^{10}\) OE had two kinds of adjectival declension: the strong declension appears when adjectives modify indefinite nominals or are in predicative position, while the weak declension appears when they modify definite nominals.
Chomsky proposes an analysis of participle agreement in terms of Multiple Agree: the probe agrees with the goal, the object in this case, as well as the participle, as a result of which the ø-features of the object value those of the probe and the participle, and the Case features of the object and participle are valued as determined by the probe (nominative if it is T and accusative if it is V, on the assumption that T and V act as probes under feature inheritance from the phase heads C and v, respectively). Extending this analysis to small clauses whose subjects and predicates show morphological agreement, and whose configuration is roughly as represented in (20), V enters into a Multiple Agree relation with the small clause subject (DP) and predicate (X), where the ø-features of DP value those of V and X, and V values the Case features of DP and X as accusative:

(20) \[
\langle vP \langle \langle VP \langle V(\emptyset) \langle XP \langle DP(Acc/\emptyset) \langle X'(Acc/\emptyset) \ldots \rangle \rangle \rangle \rangle \rangle
\]

Based on the above arguments, it is proposed that an instance of predication is licensed if its subject and predicate enter into a Multiple Agree relation with the same probe. This would capture in minimalist terms the above intuition that morphological agreement between subjects and predicates makes manifest their predication relation even without functional categories. This would imply that the theory of predication should be revised so that not only functional categories but also Multiple Agree can serve to license a predication relation.

As mentioned above, adjectival inflection gradually declined during ME, which led to the loss of morphological agreement between small clause subjects and predicates. If this means that the small clause predicate lost Case and ø-features, then predication could no longer be licensed in the configuration of (20), because only the small clause subject enters into an Agree relation with V. This would have triggered the introduction of Pred into small clauses to license a predication relation between their subjects and predicates, as an alternative to Multiple Agree, yielding the structural change as schematized in (17). Therefore, the rise of Pred in small clauses is a morphology-driven syntactic change: it was triggered by the loss of morphological agreement between small clause subjects and predicates, with
the theory of predication playing a crucial role in relating the two changes.\textsuperscript{11}

3. The Development of Bare Infinitive Complements

This section examines the development of bare infinitive complements in the history of English, arguing for the rise of a functional category T in the late fourteenth century.

3.1. The Structure of Bare Infinitive Complements in PE

Let us first introduce Ritter and Rosen’s (1993) syntactic analysis of bare infinitive complements to causative verbs in PE, to provide a basis for analyzing their historical development in the following sections.

Ritter and Rosen (1993) argue that bare infinitive complements to \textit{make} involve a functional category T, while those to \textit{have} do not, based on a number of criteria, three of which are presented here. First, \textit{make} may take bare infinitive complements with progressive \textit{be}, while \textit{have} may not, as illustrated in (21):

\begin{tabular}{ll}
(21) & a. John makes Bill \textit{be} shelving books whenever the boss walks in. \\
 & b. John has Bill \textit{be} shelving books whenever the boss walks in.
\end{tabular}

(Ritter and Rosen (1993: 536))

Second, \textit{not} expressing sentential negation can appear in bare infinitive complements to \textit{make}, but not in those to \textit{have}, as shown in (22). According to Ritter and Rosen, \textit{not} in (22b) instantiates adverbial negation (or constituent negation) adjoined to some projection of V. The marginality of (22b) is due to the fact that \textit{not} must be stressed in its use as adverbial negation; in fact, this sentence becomes fully acceptable if \textit{not} is stressed:

\begin{tabular}{ll}
(22) & a. Bill made Ralph \textit{not} marry Sheila. \\
 & b. Bill had Ralph \textit{not} marry Sheila.
\end{tabular}

(Ritter and Rosen (1993: 538))

Third, \textit{make} allows expletive subjects in its bare infinitive complement, unlike \textit{have}, as shown in (23):

\begin{tabular}{ll}
(23) & a. John makes Bill \textit{be} shelving books whenever the boss walks in. \\
 & b. John has Bill \textit{be} shelving books whenever the boss walks in.
\end{tabular}

(Ritter and Rosen (1993: 536))

\textsuperscript{11} In the case of nominal small clauses, their predicates also had Case and \textit{ø}-features in OE, and the latter have survived into PE (e.g. \textit{I consider \{John a good student / these boys good students\}}). But \textit{ø}-features are interpretable on nouns and hence cannot render a nominal small clause predicate active for Agree. Therefore, once it lost a Case feature (during EME; see Allen (1995) for the loss of case morphology on nouns), it could no longer enter into an Agree relation with the matrix V, thereby triggering the introduction of \textit{Pred} into nominal small clauses.
Ritter and Rosen (1993) argue that bare infinitive complements to *make* are categories of TP, whose head T licenses the occurrence of aspectual auxiliaries and sentential negation, and whose specifier position serves to host expletive subjects. On the other hand, bare infinitive complements to *have* do not involve T, so they do not allow aspectual auxiliaries, sentential negation, and expletive subjects. Therefore, the structures of bare infinitive complements to *make* and *have* in PE will be as follows, respectively:

(24) a. \[ \text{make} \ [\text{TP} \ \text{DP}_1 \ [\text{T} \ [\text{v} \ \text{P} \ [\text{t}_1 \ [\text{v} \ \text{VP}]]]]] \]

b. \[ \text{have} \ [\text{v} \ \text{P} \ \text{DP} \ [\text{v} \ \text{VP}]] \]

3.2. The Syntactic Properties of Bare Infinitive Complements in Early English

This section investigates the distribution of progressive *be*, negation, and expletive subjects in bare infinitive complements to causative verbs by employing YCOE, PPCME2, and PPCEME, in order to determine when the relevant evidence for T came to be attested in the history of English. First, the distribution of progressive *be* is summarized in (25), which indicates that there are no examples of bare infinitive complements to causative verbs with progressive *be* in OE and ME; examples like (26) began to be observed in EModE and all of them involve *let* as a matrix verb. However, Denison (1993) presents (27) as the earliest example of bare infinitive complements with progressive *be*, so such examples seem to have first appeared in the late fourteenth century:

(25) The Distribution of Progressive *Be* in Bare Infinitive Complements to Causative Verbs (*let*: 9)

<table>
<thead>
<tr>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

(26) a. let your plough therefore *be* going and not cease, that the ground maye brynge foorth fruite

(LATIMER-E1-H,24P.85: E1)

b. let’s *be* talking somewhat to keepe him aliue

(MIDDLET-E2-P2,60.489: E2)
c. Let’s be going with all my heart

(WALTON-E3-H,212.99: E3)

(27) lat now no hevy thought Ben hangyng in the hertes of let now no heavy thought be hanging in the hearts of yow tweye you two

(a1425(c1385) Chaucer, TC 3.1139 / Denison (1993: 384))

Second, bare infinitive complements to causative verbs with negation began to appear in M2, as shown in (28). Because the two examples from M2 are from the same text whose manuscript date is c1400 (see (29a)),\textsuperscript{12} it is plausible to assume that negation came to be attested in M3, namely in the late fourteenth century. Some examples are given in (29); (29c) is the only example with make, and let, which is attested thirty-eight times, constitutes the overwhelming majority again:

(28) The Distribution of Negation in Bare Infinitive Complements to Causative Verbs (let: 38, bid: 9, make: 1)

<table>
<thead>
<tr>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>20</td>
<td>9</td>
<td>5</td>
<td>48</td>
</tr>
</tbody>
</table>

(29) a. and also whan vre lady for drede of Herowd fleþ in-to and also when our lady for dread of Herowd flies into Egypte wit here child in here lappe, let here not goon Egypt with her child in her lap let her not go alone, (CMAELR3,41.432: M23)

b. And therfore, let vs not take any biwalkes, (LATIMER-E1-H,36L.321: E1)

c. the true Opinion which thou hast of the Government of the World, which thou believest not subject to Humane, but to Divine Wisdom, makes me not doubt of thy Recovery: (BOETHPR-E3-P1,39.184: E3)

In fact, it is difficult to judge whether not in examples like (29) instantiates sentential negation, but the following example with bid involves not after the infinitive, so it cannot be construed as adverbial negation modifying the constituent that it immediately precedes. This word order can be accounted

\textsuperscript{12} The notation M23 in the text information of (29a) and (32a), which are from the same text, indicates that its composition date and manuscript date are M2 and M3, respectively.
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for by assuming that the infinitive raises across not to a functional category, namely T:

(30) and bad hire wepe not, and bid her weep not (CMWYCSER,I,283.1017: M3)

Third, the distribution of expletive subjects in bare infinitive complements to causative verbs is summarized in (31), where the numbers in parentheses represent those of examples with expletive it. Some examples are given in (32). The one example in M2 (see (32a)) is from the text whose manuscript date is c1400; this example might involve locative there, but not expletive there, because a bare infinitive complement with the unambiguous case of locative there is used in the context immediately after (32a) in this text. Therefore, it can be concluded that expletive subjects began to be attested with some frequency in bare infinitive complements to causative verbs in the sixteenth century. As for the matrix verb, let again constitutes the overwhelming majority attested with both there and it, while make is found only with it and there are no examples like (23c) involving there, at least in the corpora investigated:

(31) The Distribution of Expletive Subjects in Bare Infinitive Complements to Causative Verbs (let: 36, make: 6)

<table>
<thead>
<tr>
<th>O1</th>
<th>O2</th>
<th>O3</th>
<th>O4</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>E1</th>
<th>E2</th>
<th>E3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>20(11)</td>
<td>14(11)</td>
<td>42(22)</td>
</tr>
</tbody>
</table>

(The numbers in parentheses represent those of examples with expletive it.)

(32) a. Let per be fair peynture and grauynge of diuere virtues;
     let there be fair painting and carving of diverse virtues; (CMAELR3,33.210: M23)

b. for and if a man may be cured with Dyet and Pocion, let there not be ministred any Chirurgerie.
     (VICARY-E1-P1,13.28: E1)

c. Well, I will now make it appear to the World, that there never lived a viler Viper upon the face of the Earth than thou.
     (RALEIGH-E2-P1,1,223.258: E2)

3.3. The Structural Change of Bare Infinitive Complements and Grammatical Competition

Given the distribution of progressive be, negation, and expletive subjects examined in the previous section, it may be concluded that bare infinitive
complements to causative verbs lacked a functional category T in OE and EME, and that the relevant evidence for T began to be attested in the late fourteenth century. As in the case of small clauses discussed in section 2, we are now in a position to clarify the relation between the structure with T and that without T: was there competition between the two structures in the transitional period after the rise of T?

As in the case of small clauses, the distribution of expletive subjects provides a clue to this question. Judging from the relevant data in YCOE, PPCME2, and PPCEME, examples like (33), where expletive subjects do not appear in configurations similar to (32), were attested until the sixteenth century. Moreover, the examples in (34) involve definite subjects in postverbal position in bare infinitive complements with unaccusative verbs; expletive there is not expected to occur in such examples due to the definiteness effect.

(33) a. þe sunne drach up þene deu and makeð þer of kume
the sun draws up the dew and makes thereof come
reines
rains (CMLAMB1 159. 518: M1)
b. Let not be knowen I told you of it, how well soeuer ye spede
(STEVENSO-E1-P1,31.496: E1)

(34) a. hi wylleþ rekeny tuyes oþer þries þet yer uor to he will reckon twice or thrice that year for to
do arise þet gauel
make arise that gavel (CMAYENBI 35. 596: M2)
b. And therwith the Duke lete fall the rynge in to the see.
(CHAPLAIN-E1-P2,8.101: E1)

Given examples like (33) and (34), it would follow that the structure without T survived in bare infinitive complements to causative verbs until the sixteenth century, thus accounting for the fact that expletive insertion and subject raising, which serve to satisfy the EPP feature of functional categories, do not occur in these examples. Therefore, the structural change

13 In PE, bare infinitive complements with postverbal subjects are restricted to a small number of idiomatic expressions like let be, let drop, let fall, let fly, let go, let pass, let run, let slip, and so on (Visser (1973)). It should be noted that fall retains its literal meaning in (34b); the string let fall is now used only in the figurative sense and incompatible with the literal meaning of fall:

(i) a. *He let fall the ladder to the ground. (cf. He let the ladder fall to the ground.)
b. He let fall a further heavy hint. (cf. *He let a further heavy hint fall.)
(Duffley (1992: 155))
of bare infinitive complements to causative verbs was gradual and can be schematized as follows, where the structure with T existed alongside of that without T from the late fourteenth century to the sixteenth century, with the former eventually replacing the latter:

\[ (35) \]

\[
\begin{align*}
\text{a. OE}\sim\text{16c: } & [v P DP [v' v VP]] \\
\rightarrow \quad \text{b. late 14c}: & [\text{T} P DP [\text{T} [T' T [v P t_1 [v' v VP]]]]]
\end{align*}
\]

As in the case of small clauses, given that the syntactic properties of bare infinitive complements to causative verbs discussed in the previous section are diagnostic for the presence of T, it is predicted that they will cluster together in the same texts. This prediction is largely borne out in the correlation between negation and expletive subjects: there are thirteen texts from PPCME2 and PPCEME that contain both examples with negation and examples with expletive subjects (among thirty-three texts in which negation is attested and twenty-four texts in which expletive subjects are attested). This would suggest that these texts have the grammatical option in (35b), yielding the clustering of negation and expletive subjects in bare infinitive complements to causative verbs. Moreover, if the structural change in (35), especially during the transitional period from the late fourteenth century to the sixteenth century, can be characterized in terms of grammatical competition like the structural change of small clauses discussed in section 2.3, examples like (33) and (34) are predicted to be observed in some of the individual texts in which examples with expletive subjects are attested. In fact, there are five texts from PPCME2 and PPCEME that contain both kinds of examples, suggesting that the two grammatical options in (35) are in competition within the authors of these texts.

3.4. The Rise of T in Bare Infinitive Complements and the Licensing of Predication

This section argues that the same sort of scenario as in the case of small clauses holds of bare infinitive complements as well: the rise of T was caused by morphological erosion, and the theory of predication plays a cru-

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14 The gradual structural change of bare infinitive complements to causative verbs is analyzed in (35) in terms of the competition between a structure with T and one without. As in the case of Pred in small clauses mentioned in footnote 7, there seems to be no empirical evidence for postulating T without an EPP feature in bare infinitive complements to causative verbs in early English. In fact, among the total of fifty-seven examples in (25) and (28), no examples are found where infinitival subjects follow aspectual auxiliaries or negation, which implies that the EPP feature of T is obligatory and always triggers raising to Spec, TP.
cial role in relating the two changes. Although bare infinitive complements, unlike small clauses, do not manifest morphological agreement between their subjects and predicates throughout the history of English, the infinitive had morphemes for nominative/accusative case (-an) and dative case (-enne) in OE. In EME, the case distinction was lost and these morphemes were collapsed as -en; the latter was then further weakened to -e in LME, resulting in its final loss during the sixteenth century (Lightfoot (1979)).

Based on this observation, Tanaka (2007) proposes that the infinitival morpheme bears Case and ø-features in bare infinitive complements without overt subjects in OE and ME, and the Case feature is valued as accusative via an Agree relation with the matrix V. Extending this proposal to bare infinitive complements with overt subjects, their structure will be as follows:

$$\left[\left[vP \left[v \left[vP_{\text{V1(ø)}} \left[vP_{v_{2-an(\text{Acc/ø})}} \left[vP_{v_{2-\text{V2}} \text{...}}\right]\right]\right]\right]\right]$$

In (36), the matrix V enters into a Multiple Agree relation with the overt subject and the infinitival morpheme, valuing the Case feature of the latter two as accusative. This serves to license the predication relation in bare infinitive complements, as long as the infinitival morpheme is present. As we saw above, that morpheme gradually declined during ME and was finally lost in the sixteenth century, with the result that from that point on, the matrix V entered into an Agree relation only with the overt subject in bare infinitive complements. Thus, it can be concluded that the decline and subsequent loss of the infinitival morpheme triggered the rise of T in bare infinitive complements as an alternative way of licensing predication.15

Finally, let us mention one of the consequences of the rise of T in bare infinitive complements. On the basis of careful examination of the semantic properties of bare infinitive complements in OE and ME, Fischer (1995, 1996a, b) observes that the event they denote is interpreted as simultaneous with the event denoted by the matrix verb. This observation is consistent

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15 Recall from section 2.4 that (apart from cases where licensing via Multiple Agree applies) this paper follows Svenonius (1996) in assuming that predication is licensed by T in finite and infinitival clauses and by Pred in small clauses, so that v cannot license the predication relation in (36). According to Svenonius, a predicate is a property-denoting XP, one of whose arguments raises to the specifier position of a functional category serving as a predicate operator. If this is correct, vP will semantically be a predicate whose external argument raises to Spec, TP and hence cannot be a domain for the licensing of predication. Also relevant is the fact that v is not a pure functional category, but has a lexical property of selecting an external argument in Spec, vP; the licensing of predication by functional categories should be distinguished from (external) θ-role assignment within vP, as is obvious from passive/unaccusative sentences, where internal arguments function as subjects of predication as the result of raising to Spec, TP.
with the proposal in this paper that bare infinitive complements lacked T in OE and ME (at least until the late fourteenth century), because the matrix verb and the infinitive fall under the same tense domain provided by the matrix T. On the other hand, the rise of T in bare infinitive complements would lead to the prediction that such complements may denote an event with a different time reference from the event denoted by the matrix verb, because the two events are associated with two different T nodes. This prediction is borne out by examples like (37), where it is obvious that the matrix causing event is temporally prior to the event of the bare infinitive complement:  

(37)  

a. We can’t now let Gazza play for England in the future.  

(Felser (1999: 54))  

b. Her early trauma made Mary seek therapy later in life.  

(Safir (1993: 59))

4. Concluding Remarks

This paper has argued for the rise of functional categories in the history of English, Pred in small clauses and T in bare infinitive complements, on the basis of the historical data that for the most part have not heretofore been discussed in either the descriptive or generative literature. It

16 Unfortunately, examples like (37), which show temporal independence of the matrix clause and the bare infinitive complement, are not found in the texts of PPCME2 and PPCEME that date from after the late fourteenth century. Given that such examples are almost impossible to find even in PE corpora, their absence can be an accidental gap that does not undermine the present analysis, which claims that T began to appear in bare infinitive complements in the late fourteenth century.

17 Among causative verbs, have, unlike let and make, does not allow this kind of non-simultaneous interpretation. This is compatible with the fact that bare infinitive complements to have exhibit no diagnostic properties of T even in PE. This raises the question of how their predication relation is licensed in the absence of T. As shown in (i), Ritter and Rosen (1997) propose that have, being a functor predicate, is decomposed into two functional categories (F1 identifies the originator of the event and F2 measures out the event), and the embedded subject moves to Spec, F2P:

(i)  

[\(F_1P \) John [\(F_1' \) F1 [\(F_2P \) the students, [\(F_2' \) F2 [\(vP \) t \(v \) [\(vP \) read three articles]]]]]]  


If it is the case that there has been no change in the status of have as a functor predicate (at least since ME, when it began to be attested with bare infinitive complements), it might be suggested that the predication relation in bare infinitive complements to have has been licensed by F2 throughout the history of English, regardless of whether the infinitival morpheme is present.
is claimed that the two cases of functional category emergence were both triggered by morphological erosion, which is in turn shown to be related to the licensing of predication in small clauses and bare infinitive complements. Furthermore, it is observed that the structural changes of these two types of nonfinite clauses were gradual, a fact which is best characterized in terms of grammatical competition in the sense of Kroch (1989).

Before closing the discussion, some comments are in order regarding one of this paper’s contributions to the study of functional category emergence. Cases of functional category emergence discussed in previous studies can be roughly divided into two types: (i) reanalysis of an existing (lexical) element as a functional category, and (ii) emergence of a new functional category that does not result from an existing (lexical) element. The first type, generally called “grammaticalization,” is usually associated with factors like semantic bleaching; typical instances are reanalysis of lexical verbs as auxiliaries, of demonstratives as determiners, and of prepositions as conjunctions (Hopper and Traugott (2003)). A number of proposals have been put forth in the generative literature to account for such historical developments, in terms of change from a lexical category to a functional category, from a functional category to a higher functional category, from a specifier to a head, and so on (van Gelderen (2004), Lightfoot (1979), and Roberts and Roussou (2003) among others; see also Nishiyama’s paper in this series).

The second type comprises cases in which a new functional category is held to have emerged as a result of an independent morphological or parametric change, and the present proposal that the rise of Pred and T was triggered by morphological erosion in nonfinite clauses is of this type. Van Gelderen (1993) and Osawa (2005) give a number of potential cases of this type of functional category emergence (see also the articles on the topic of functional category emergence in EL 26.2 (see the references of the Introduction)); especially relevant is Osawa’s (2005) analysis of the rise of a functional category I in infinitival clauses in the history of English. According to her, the loss of the infinitival morpheme triggered the rise of I as a means of binding an event argument in infinitival clauses, yielding ECM constructions, raising constructions, and for DP to VP constructions. However, it is entirely possible to account for the innovation of these constructions in terms of the grammaticalization of to from P to T (Jarad (1997) and Tanaka (2007)). Moreover, other cases of historical change van Gelderen and Osawa try to capture in terms of the rise of new functional categories are typical instances of grammaticalization, like the development
of do, modal auxiliaries, and determiners. In contrast, the rise of functional categories in small clauses and bare infinitive complements discussed in the present paper cannot simply be regarded as cases of grammaticalization. Therefore, one of the important contributions of this paper is that it has revealed two cases of the relatively rare phenomenon of functional category emergence triggered by morphological change, where a syntactic factor (i.e. the theory of predication) plays a crucial role in relating the two changes.

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**Corpora**


**Dictionary**


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