3

The historical syntax problem: reanalysis and directionality

ANDREW GARRETT

3.1 Introduction

In this chapter I suggest that our field's interest in reanalysis as a mechanism of change, while rightly focusing attention on syntactic structure, also contributes to a blinkered view of diachrony.¹ I exemplify my view with accounts of two widely discussed changes: the Middle English emergence of for NP to VP infinitivals, and the Early Modern English emergence of the be going to future. These accounts illustrate an approach whose goal is not just to characterize reanalyses but to understand what lies behind them.

I agree with Kiparsky (in this volume) that it is useful to classify syntactic changes under the two broad headings of analogy and grammaticalization. I understand analogy as a cover term for changes that involve the imposition of regular patterns (rules, constraints, etc.) from one area on another.² Examples include the spread of a subcategorization frame to a new verb class, a shift of headedness in one word class based on another, and a word order change in one clause type based on another. Such changes crucially depend on existing regularities. Grammaticalization changes, in contrast, may yield new patterns or grammatical categories, and in many cases show familiar directionality asymmetries. Body-part nominals often turn into spatial adpositions, for example, minimizers become negative markers, and left-dislocation structures may evolve into subject agreement; the reverse changes are rare.³

¹ For very helpful comments on a draft of this chapter I am grateful to John Whitman and two anonymous referees; for discussion over the years, many thanks to my students and to audiences at Berkeley, Cornell, Stanford, and the Yale DIGS meeting.
² Those who dislike the term "analogy" may prefer a name like "syntactic regularization".
³ These two categories of syntactic change, analogy and grammaticalization, are generally comparable to the two main categories of phonological and morphological change, namely, analogy and sound change respectively. For example, both grammaticalization and sound change show clear directionality asymmetries.
What is the role of reanalysis in this context? On some level all change must reflect structural reanalysis if linguistic systems have structures, but reanalysis per se has little explanatory force. Any number of reanalyses are imaginable, and many logically possible reanalyses fail to occur; reanalysis is moreover incapable on its own of explaining directional asymmetries. Therefore a mature research program should not only characterize structural reanalysis in specific cases but should also seek to understand what triggers it.

In what follows, I first (in Section 3.2) comment on the modern interest in reanalysis and I then treat alleged reanalysis changes as cases of analogy or grammaticalization. In Section 3.3, I show that radical reanalysis in syntactic change has been overemphasized and that most of the changes involved in one well-known alleged case (the English *for NP to VP* pattern) are broadly analogical. In Section 3.4, I propose a new account of the emergence of the English *be going to* future; this case shows how the combinatorial properties of a source pattern give rise to the properties of an emergent one in grammaticalization. I briefly conclude in Section 3.5.

### 3.2 Reanalysis

A major weakness of modern historical syntax has been a failure to investigate the causes of reanalysis and a reliance on mere formal ambiguity as an explanation for change. For example, Harris and Campbell (1995: 53) write that “[l]anguage contact, surface ambiguity, and analogues [structurally similar items, constructions, etc.] can all be among causal factors in changes”. Since not every syntactic change involves contact or analogy, this means that surface ambiguity—the mere possibility of multiple analyses—can sometimes cause an alternative structure to emerge.

This same weakness can be found in canonical texts of the diachronic generative syntax movement. Thus Lightfoot (1999: 179) has written that “[w]e explain a change only if we can point to prior changes in the distribution of the relevant cues”, adding later (p. 259) that “there is nothing principled to be said about why the cues should shift a little; those shifts often represent chance, contingent factors”. At least for some changes, in other words, explanation is not in our remit.

This is not just a gripe about rhetoric; inattention to the causes of reanalysis runs deep. A famous case of reanalysis is the change by which, according to Jespersen and

---

4 I use Lightfoot’s (1979a) term “radical reanalysis” in its now typical sense, referring to the development of new grammatical structures or categories through reanalysis.

5 A good example of the failure can be seen in my own analysis of the evolution of ergative case marking systems (Garrett 1990): the crucial reanalysis (instrumental NP > ergative subject NP in previously null-subject transitive clauses) is formally straightforward but was given no motivation. (Why not the reverse change?) Some linguists, seeing how hard the actuation problem is in historical syntax, have chosen to foreground syntactic changes due to language or dialect contact; for early references see the overview of Kroch (2001).
his followers, English psychological verbs such as like supposedly shifted from the Theme-subject frame in (3.1a) to the Experiencer-subject frame in (3.1b). 6

(3.1) a. Like (OE lician): Theme subject (nominative) + Experiencer object (dative)
   Example: ge noldon Gode lician ‘...ye would not please God...’
   (ÆCHom II, 44 332.160 [Allen 1995: 147])

   b. After reanalysis: Experiencer subject + Theme object
   Example: I like the idea of Miller’s anti-literature
   (1939 Dylan Thomas Let. II Sept. (1966: 236)[OED])

We now know from the work of Allen, (1986, 1995) that Jespersen’s story about psychological verbs is wrong (in fact the Experiencer-subject frame already existed in Old English), but it is worth seeing how it has been invoked. Lightfoot (1988: 306) has cited Jespersen as follows:

Jespersen (1928) claimed that [his] change ‘was brought about by the greater interest taken in persons than things.’ They did not always presuppose a very sophisticated or even plausible psychology, but it is clear that historians have looked to psychology for their explanations.

As Lightfoot observes here and elsewhere, an essential element of the Jespersen account is that verbs such as like must have been used in OVS sentences often enough to allow reanalysis. 7

(3.2) ac gode ne licode na heora geleafeast …
   ‘But God (DAT) did not like their faithlessness (NOM)…’
   (ÆHom 21.68 [Allen 1997b: 2])

By contrast, kill, see, love, and other verbs must relatively rarely have occurred in OVS sentences. This is a key ingredient of the account: After English shifted to basic VO order, surface OVS order with like led to reanalysis of the verb’s argument structure.

Why would like and other psychological verbs have differed in this respect from all other transitive verbs, including others that originally selected dative objects? This is what Jespersen sought to answer:

The change in construction was brought about by (1) the greater interest taken in persons than in things, which caused the name of the person to be placed before the verb, (2) the identity in form of the nominative and the oblique case in substantives. (Jespersen 1928: 208)

Lightfoot attributes to Jespersen the view that the change itself was caused by our interest in people, but Jespersen was actually suggesting, in effect, that human referents tend to be more salient or topical in discourse, that such NPs tend to be placed initially, and that this explains the frequency of OVS word order. The reanalysis

6 Most of the examples in this chapter, including (3.1b), are quoted from the online CMEPV, LION, MED, and OED corpora. Capitalization is normalized in Middle and Early Modern English examples, and boldface and underlining are added.

7 Very similar discussions appear in Lightfoot (1991, 1999), and Anderson and Lightfoot (2002).
account requires an explanation of the OVS pattern, and while Jespersen’s explanation is crudely stated it is not incoherent. His account is wrong, to repeat, but he was addressing a crucial question: Why reanalysis? Why did the usage patterns of some verbs shift to allow argument-structure inversion? Far from offering a just-so story à la Jacob Grimm, Jespersen was trying to answer what a modern theorist has not even recognized as a question.

3.3 English for NP to VP infinitivals

One consequence of a lack of interest in the causes of reanalysis has been a willingness to accept accounts based on pure reanalysis. Models like Whitman’s (2000) “relabelling hypothesis” that reject radical reanalysis are welcome, but reanalyses driven solely by syntactic ambiguity remain a staple of the literature. For example, almost as famous as the history of like is a reanalysis supposedly underlying English for NP to VP infinitivals. I contend that this parade example of reanalysis is also a mirage. In Section 3.3.1 I summarize the standard account, in Section 3.3.2 I offer a critique, and in Section 3.3.3 I summarize my conclusions.

3.3.1 The reanalysis account

The modern pattern of interest is illustrated in (3.3–3.4). The infinitivals in (3.3) are extraposed from subject or object position, while those in (3.4) include a verbal complement, a nominal complement, and a purpose adjunct.

(3.3)  

a. It is a great thing for struggling youth to have a three-syllabled name with a proparoxyton accent.  
   (1887 ’Q’ (Quiller Couch) Dead Man’s Rock 187 [OED])

b. It is never pleasant for a man of sensibility to find himself regarded as a buttinski  
   (1960 Wodehouse Jeeves in the Offing v. 50 [OED])

c. The ‘Tories’ drive to cut public spending . . . has made it harder for Britain to be communautaire when other EEC countries want to raise spending.  
   (1979 Economist 14 July 44/1 [OED])

(3.4)  

a. I will arrange for you to speak to her briefly over the radio-telephone.  
   (1966 P. O’Donnell Sabre-tooth xiv. 187 [OED])

b. It was a signal for the waiter to hustle over  
   (1950 Sat. Even. Post. 15 July 124/3 [OED])

c. For BEC to occur, the quantum wavelengths of the atoms must be greater than their average separation  
   (2001 Nature 24 May 427/1 [OED])

8 See Mair (1990) and De Smet (2008) for thorough studies of for-infinitival syntax and usage in Modern English synchrony and diachrony.
Kiparsky and Kiparsky (1970) argued that the extraposed infinitival pattern in (3.3) is restricted to predicates that "express the subjective value of a proposition rather than knowledge about it or its truth value."Grammatically, these are usually APs or NPs. I will use the term Experiencer for the semantic role of the participant whose subjective point of view is depicted in this pattern.

Since extraposed for-infinitivals by nature imply an Experiencer role, the infinitivals in (3.3) could potentially be analyzed as PPs followed by subjectless infinitivals:

\[ \text{it made sense [PP for everyone] [TP PRO to get a fax].} \]

Their Modern English clausal status is, however, established by patterns like those in (3.5).

(3.5)  
\[ \text{a. It is pleasant for the rich for the poor to do the hard work.} \]
\[ \text{(Bach and Horn 1976: 269)} \]
\[ \text{b. It is a waste of time for us for them to teach us Latin.} \]
\[ \text{(Chomsky 1977: 103)} \]
\[ \text{c. For them to teach us Latin is a waste of time.} \]
\[ \text{d. It is more pleasant for the rich to do the hard work than for the poor to do the hard work.} \]

Since the PPs for the rich and for us in (3.5a–b) express the Experiencer roles, the poor and them respectively can only be interpreted as infinitival subjects. In (3.5c) the infinitival is in subject position, and in (3.5d) it is a comparative complement; in each instance the NP after for can only be interpreted as a subject, not as an Experiencer in a PP headed by for.

It is a well-known view that for-infinitivals, or at least the extraposed type usually discussed, originated through the reanalysis schematized in (3.6).\footnote{This view is expressed by Fischer (1988, 1992: 331) in the specialist literature, followed by Harris and Campbell (1995: 62) and Haspelmath (1998: 324–5); for a related view see Fischer et al. (2000: 214–20). Alternative accounts are given by Lightfoot (1979: 186–204), followed by Whitman (2000: 223–6), and by De Smet (2009, 2010). Fischer (2007: 15–17) and van Gelderen (2010) offer further valuable discussion.}

(3.6)  
\[ \text{a. Earlier structure: Predicate + [PP for NP] [TP PRO to VP]} \]
\[ \text{b. Structure after reanalysis: Predicate + [CP for [TP NP to VP]]} \]

At the earlier stage, according to this view, the for NP sequence was a PP expressing the Experiencer role; reanalysis resulted in a structure in which for is a complementizer, not a preposition, and the NP is the infinitival subject. After reanalysis, the NP is not necessarily interpreted as an Experiencer; such an interpretation arises only as an implicature that can be overridden by context as in (3.5a–b).

The modern structure, where for is a complementizer and the NP is an infinitival subject, is usually dated to the sixteenth century. This is based on examples like (3.7a–c). The for-infinitival in (3.7a) is preposed, while those in (3.7b–c) are comparative complements, in a position where for cannot be a preposition.
The historical syntax problem

(3.7) a. For me to go it is well necessary Bycause of suche a plee I may not tarye
(c 1507 Anon. The fyftene loyes of maryage 477–8 [Fischer 1992: 331])

b. No better remedy or devise can be found, than for you to aspire & seeke
the Kings fauor and seruice
(1567 William Painter The Palace of Pleasure, Tome 2 [LION])

c. What thing is more inhumane, than for man to contemne that as profane
which the eternall hath halowed?
(1568 Tilney Disc. Mariage A vij b [OED])

According to Fischer (1992: 331), the earliest clear examples are from c 1507 and 1534,
while De Smet (2009: 1744) cites examples from 1538 and 1556. All this suggests that
reanalysis, if it is responsible for the appearance of these examples, took place in the
decades around 1500.

Around this time, many ambiguous examples like those in (3.8) are attested. In
such examples, it is possible with hindsight to interpret the for NP to VP sequence as
a CP, as in (3.6b). But since the NP is interpretable as an Experiencer, these examples
could instead be taken as instances of the structure in (3.6a), with a PP followed by a
subjectless infinitival.

(3.8) a. Sir, it is not yet tyme for me to be maried, for I am yonge
(a1500 (?c1450) Merlin (Cmb Ff.3.11) [CMEPV])

b. It is right necessary for you to haue Hew of Fen to be yowr frende in yowr
materes
(1461 Margaret Paston [Davis 1971: 275])

c. And if hit were possible for me to dye an hondred times, I had levir to dye
so oufte than yelde me to the.
((a1470) Malory Wks. (Win-C) 144/18 [MED])

d. It is better for me to walke … bare hede and all dysformate
(1491 Caxton Vitas Patr. (W. de W. 1495) II. 219 a/2 [OED])

The standard account posits that reanalysis was responsible for sixteenth-century
examples like those in (3.7); it may be assumed that examples from the Pastons,
Malory, and Caxton as in (3.8a–c) predate reanalysis and should be analyzed as PPs
followed by infinitivals.

Examples like those in (3.8)—the ostensible basis for reanalysis—are not restricted
to the decades immediately before 1500. As is well known, and seen in (3.9), they
are attested in the late fourteenth century (e.g. in Chaucer, Gower, and Wycliffe) and
throughout the fifteenth century.

(3.9) a. Dei ensuren to men bat it is best for hem to be men of priuat religion
(?c1430 (c1383) Wycl. Leaven Pharisese (Corp-C 296) [Matthew 1880: 17])

b. Wel can Ovyde hire letter in vers endyte, Which were as now to long for
me to wryte.
(c1430 (c1386) Chaucer LGW (Benson-Robinson)1678 [MED])
c. It is better for us to deie savynge the children lyf, þan to gete a cruel lyf by þe innocent children de.

\((a1387)\) Trev. Higd. (St.C H.1) 5.127 [MED]

d. So that thensample ['the example'] of this histoire Is good for every king to holde.

\((a1393)\) Gower CA 7.3790 [MED]

e. It was impossible for hem to bere eny more hereafter suche charges.

\((1449)\) RPurl. 5.147b [MED]

On the standard view, then, the ingredients for the for-infinitival reanalysis entered the language in the late fourteenth century, the antecedent pattern became more common during the nineteenth century, and reanalysis itself took place around 1500.

It is important to add that for NP to VP infinitivals are a relatively uncommon pattern even in the early texts where they appear as in (3.9). A more frequent alternative involves plain NP to VP infinitivals. Examples are given with pronouns in (3.10) and nouns in (3.11).

(3.10)  a. If a man wol winne, it is necessarye him to sinne.

\((1387–8\) T. Usk Test. Love iii. iv. (Skeat) l. 27 [OED])

b. It were impossible me to write what schuld I lenger of þis caas endite

\((c1455\) Chaucer CT. Sq (Hrl 1758) 1549–50 [CMEPV])

c. Dus myche knowing of vs silf is necessarie vs to haue þis present purpos.

\((c1443\) Pecock Rule (Mrg M 519) 4 [MED])

d. Of ech of hem it is trewe to be seid þat it is bettir hym to be had þan to be not had.

\((c1443\) Pecock Rule (Mrg M 519) 66 [MED])

(3.11)  a. It is not good man to be alone.

\((1382\) Wyclif Gen. ii 18 [OED])

b. Hit is schame softenes and insolence to haue dominacion in a knyghtes other elles in a kynge body.

\((a1387\) Trev. Higd. [CMEPV]

c. Hit is impossible our ship to go to wrakke whyles þis sterre ouershyne vs.

\((c1400\) PLove (Hrl 2254) 195/15 [MED])

d. It is good and resonable men to haue chirchis in mesure

\((c1475\) (a1400) Wycl. Pseudo-F. (Dub 245) 321 [MED])

e. At God, it is possible a riche man to entre into the kingdom of heuen

\((c1449\) Pecock Repr. (Cmb Kk.4.26) 296 [MED])

As Fischer et al. (2000: 216–17) point out, such NP to VP infinitivals are already well attested in Old English, as in (3.12). As in (3.10) above (with Middle English pronouns), in Old English the dative case is often unambiguous in such extraposed examples.

(3.12)  a. Des traht is langsum eow to gehyrenne

‘This treatise is tedious (for) you [DAT] to hear.’

\((ÆCHom II, 41.308.138\) [Fischer et al. 2000: 216])
b. Eaðlice byð dam olfende to gange ðurh nædle eage þonne se welega on heofona rice ga

'(It) is easier (for) the camel [DAT] to go through the eye of a needle than (that) the rich go [SUBJUNCTIVE] into the kingdom of heaven.'

(Mt (WSCp) 19.24 [Mitchell 1985: vol. 2, p. 901])

The pattern in (3.10–3.12) is of interest for several reasons, not least because Fischer et al. claim that the crucial reanalysis, while it had the general character that is standardly assumed and is shown in (3.6), actually took place at an earlier stage. At the earlier stage, they claim, Experiencer datives (without for) were reanalyzed as dative subjects of infinitivals; see further below.

3.3.2 A new account

The reanalysis account in Section 3.3.1 has at least two serious problems. The first relates to chronology. Scholars assume that unambiguous evidence for for-infinitival constituency is first found in the sixteenth century. In fact, however, examples like (3.7) appear in texts a century earlier than is ordinarily supposed. Two examples from around 1400 are quoted in (3.13).10

(3.13) a. Hit is worship to be for hym in þo mene tyme [to] be nackened of honoure.

'It is a source of honor to you for him in the meantime to be stripped of honor.'

(a1400 DCChrist (Roy 17.B.17) 61 [MED])

b. It is better for to induce somwhat of noying… þan for to late a man dye for aking

'It is better to induce some pain than for a man to die too late of aching.'

(?a1425 *Chauliac(I) (NY 12)171b/b [MED])

In (3.13a), the Experiencer role is expressed in the PP to be, so hym must be treated as the subject of be nackened; cf. (3.5c) above. In (3.13b), for a man… dye for aking is a comparative complement of the type in (3.5e) and (3.7b–c) above.

The examples in (3.13) are of great interest not only because they antedate previously known examples by a century, but also because they are not much later than the first for-infinitivals in (3.9). The latter appear toward the end of the fourteenth century; clear evidence of clausal status is now observed almost immediately thereafter. It is reasonable to suggest that from the beginning for NP to VP sequences were clausal.

10 These are the only examples I found in the online Middle English Dictionary corpus and the Corpus of Middle English Prose and Verse, but there are surely others that I missed or are outside those corpora. Even a count of two is meaningful, given the relative infrequency of the for NP to VP pattern. The editor Horstman (1896: 61) supplies to in (3.13a), but the use of bare infinitives in (3.13a–b) is not unusual for the period. And while both texts in (3.13) are translations, I do not know any reason why this would yield an otherwise unnatural for NP (to) VP pattern. Finally, note that the examples in (3.13) partly undermine De Smet’s (2009) argument that the for NP to VP pattern did not originate with extraposed infinitival subjects. De Smet points out that for-infinitivals in other syntactic contexts are significantly earlier than the sixteenth century, but this point is no longer germane.
This view of the clausal status of for NP to VP sequences is supported by the interpretation of the for-infinitivals in (3.14–3.16). The examples in (3.14) include a predicate of the type associated with Experiencer roles in (3.14a) and other predicates in (3.14b–c). In (3.14a), it is hard to interpret synnes as bearing the Experiencer role assigned by the imposybel; it is the sinner or would-be expiator for whom the goal is impossible. In (3.14b), the teaching is reliable not for health but for keeping health; in (3.14c), what was made ready was not the ships but the passing over the sea.

(3.14)  a. It is imposybel for synnes to ben y-don a-wey þoroð gotes blod oþer boles blod.

'It is impossible for sins to be done away through goats’ blood or bulls’ blood.'

(c1400 Bible SNT(1) (Selw 108 L1) Heb.10.4 [MED])

b. Also it ys a certayn techinge for hele to be keped ['a reliable teaching for health to be kept'], þat a man vse metys þat accordyn to his complexioun and nature yn his hele…

(a1500 (?1425) Lambeth SSecr. (Lamb 501) [Steele 1898: 68])

c. Kynge Arthure and… Sir Gawayne… made a grete oste aredy to the numbir of three score thousande; and al thynge was made redy for their shyppyng ['ships'] to passe over the see

((a1470) Malory Wks. [Shepherd 2004: 672])

Finally, the examples in (3.15) involve for NP to VP complements of the verb or noun desire. In neither case can the NP (his fayrhed, an eende) be interpreted as a complement of desire.

(3.15)  a. ʒif you wilte knowe wherinne he schewyd hys pride, I answere þe & say in þis, þt he desyrede for his fayrehd ['beauty'] to haue be peer wt god.

(c1450 (a1400) Lavynham Treat.7 Dead. Sins (Hr1 211) 1/28 [MED])

b. … the Bysshop of Norwych makyth but delayes in my resonable desyre for an eende to be had in the xxv. marc of Hykeling…

(1451 John Fastolf [Gairdner 1872: 227])

Note that the earliest examples in (3.14–3.15), like those in (3.13), are from around 1400.11

Even if for-infinitivals were always clausal (CPs), it remains the case that for a century or two they were rarely used in subject positions or other positions unambiguously showing clausal syntactic status. Despite very clear examples like (3.13), the usual pattern in subject and other such positions is one without for, that is, a plain NP to VP pattern. Quoted in (3.16), for example, is a fourteenth-century pair of coordinated preposed infinitivals.

---

11 De Smet (2009: 1745) cites (3.14b) and (3.15b) as '1400–49', following IMEPC (the Innsbruck Middle English Prose Corpus), but both manuscripts postdate 1450. They are the only two (ostensibly) pre-1450 examples that he cites of for-infinitivals as adjuncts or nominal complements that are not extraposed subjects.
The historical syntax problem

(3.16)  
  _Me, here to leue, & þe, hennys þus go, hit is to me gret care & endeles wo._  
  'For me to stay here, and for you to go away from here like this, is immensely hard and painful for me.'  
  (Rel. Lyrics 123.3 [Fischer et al. 2000: 217])

Several later fifteenth-century examples are quoted in (3.17–3.18): subject infinitivals with pronouns in (3.17), including a case in (3.17c) with right-dislocation; and comparative and adjunct clauses in (3.18). These examples together (and others with nouns instead of pronouns) establish that the NP to VP pattern, like the for NP to VP pattern, is a constituent; see Warner (1982).

(3.17)  
  a.  _Thou to love that lovyth nat the is but grete foly._  
      ((a1470 Malory Wks. [Vinaver 1990: 322])
  b.  _Thou to ly by oure modir is to muche shame for us to suffir._  
      ((a1470 Malory Wks. [Vinaver 1990: 612])
  c.  _That were shame unto the', seyde Sir Launcelot, 'thou an armed knyghte to sle a nakyd man by treson.'_  
      ((a1470 Malory Wks. [Shepherd 2004: 173–4])

(3.18)  
  a.  _It was as good to do so as I for to take it hym and he to take it me ayen._  
      (1465 John Paston I [Davis 1971: 137])
  b.  _I to take þe lesse when I may have þe more, my frendes wold þenke me not wyse._  
      (1472 Stonor 123 [CMEPV])

The infinitival subject in examples like these is regularly case-marked nominative; presumably the non-nominative subject pronouns in (3.16) are due to the emphatic contrast.

For writers like Chaucer and Wycliffe in the late fourteenth century, in all contexts the plain NP to VP pattern of (3.10–3.11) is more common than the for NP to VP pattern, but the latter gains ground over the next hundred years. For Malory and other late fifteenth-century writers, infinitivals with Experiencer-type predicates usually have for. The examples in (3.19) are quoted from among many other similar passages in Malory; the examples in (3.20) lack for.

(3.19)  
  a.  _Hit woll be no worshyp for you to have ado with me, for ye ar freysh and I am sore woundid._  
      ((a1470 Malory Wks. [Shepherd 2004: 339])
  b.  _'Truly,' seyde sir Launcelot, 'yondir one knyght shall I helpe, for hit were shame for me to se three knyghtes on one, and yf [he] be there slyne I am partener of his deth.'_  
      ((a1470 Malory Wks. [Vinaver 1990: 271])
  c.  _'Fy fy!' seyde the damesell, 'hit is shame for you to see hym suche worshyp.'_  
      ((a1470 Malory Wks. [Shepherd 2004: 188])

(3.20)  
  a.  _Hit ys the custom of my contrey a knyght allweyes to kepe his wepyn with him._  
      ((a1470 Malory Wks. [Vinaver 1990: 83])
In summary, it appears that the for NP to VP pattern was always clausal, from the moment of its coinage, but that nevertheless, until the sixteenth and later centuries, it was mainly used in contexts where it seems ambiguous syntactically. The best interpretation of this usage limitation is probably that of De Smet (1991: 63) finding that innovations are first used in contexts “where surface differentiation between the old and new systems is zero (or nearly so)”; cf. Kiparsky (1992). In this case the idea is that the independent existence of for in NP- and VP-complement PPs also favored the use of for-infinitivals in similar environments, but for example not in subject position. Over time, this limitation has broken down, no doubt in part through pressure from the asymmetry between for-infinitival CPs (e.g. VP-internally) and plain NP to VP infinitival CPs (e.g. in subject position). In short, the modern situation at least partly developed through a species of syntactic analogy.

A second problem for the reanalysis account relates to the supposed source structure in (3.6a), in which the for NP sequence is a PP expressing the Experiencer role, and the infinitival phrase lacks an overt subject. It is easy to see in texts, especially fourteenth- and early fifteenth-century texts, that Middle English more often uses to than for in clear cases where an Experiencer role is expressed. The examples in (3.21) have simple PPs with to and no infinitival phrase; those in (3.22) also have finite complement clauses.

(3.21)  
\begin{enumerate}
\item a. Þei ... schal fynde what is necessarie to hem Þat ... serueþ God.  
\((\text{alt402) Trev. Dial.MC (Hrl 1900) 16/8 [MED]})\)  
\item b. [N]o þing schal be impossible to ȝou.  
\((\text{c1443) Pecock Rule (Mrg M 519) 450 [MED]})\)  
\item c. Mete is good to man, be it neuere so delicate.  
\((\text{c1450 Jacob’s W. (Sal 174) 144/7 [MED]})\)
\end{enumerate}

(3.22)  
\begin{enumerate}
\item a. Poul ... hiȝede, if it were possible to him, that he schulde make the day of Pentecoste at Jerusalem.  
\((\text{c1384) W Bible(1) (Dc 369(2)) Deeds 20.16 [MED]})\)  
\item b. It is necessarie to him Þat he reste.  
\((\text{c1475 (1392) *MS Wel.564 (Wel 564) 55a/b [MED]})\)  
\item c. Hit is good to þe Þat hou turne nouȝt þi reste vnto idelnesse.  
\((\text{a1475 (a1396) *Hilton SP (Hrl 6579) 1.40.24b [MED]})\)
\end{enumerate}

PPs headed by to are also used with infinitivals, as in (3.23).
The historical syntax problem

(3.23)  a. For hit is necessary to a man to flee to manhode that hathe noon ojer socoure. 
        ((a1387) Trev. Higd. [CMEPV])

        b. I hope hit is good to hem for to schede outward werkes of actyf lyf.
        (c1390 Hilton ML (Vrn)270 [MED])

        c. A tale which is good to knowe To thee, mi Sone, I schal beknow.
        ((a1393) Gower CA (Frfa 3) 6.1390 [MED])

        d. It is good to prestis to haue worldly goodis
        (fcl420 (c1400) Wycl. Prelates (Corp-C 296) [Matthew 1880: 97])

In (3.23c), the word order (good to knowe To thee) shows that thee is a prepositional object and not an infinitival subject.

I do not mean to say that Experiencer roles are never expressed with for, but PPs with to are common—impressionistically, more common than PPs with for in this earlier period. For some authors and some predicates, they seem categorical. In Malory’s usage, for example, shame uses only to and never for in contexts where an Experiencer role is unambiguous. Two crucial types of example are illustrated in (3.24).

(3.24)  a. Hit were shame to us and [‘if’] he were nat assayed, were he never so good a knyght.
        ((a1470) Malory Wks. [Vinaver 1990: 160])

        b. Hit is to you shame to sey us knyghtes of Cornwayle dishonour, for hit may happyn a Cornysh knyght may macche you.
        ((a1470) Malory Wks. [Vinaver 1990: 399])

In (3.24a), the point is that without an infinitival phrase, PPs expressing the Experiencer role of shame have to only; there is no minimally different example like it were shame for us if he were not assayed. The point in (3.24b) is that in sentences with shame and an infinitival, PPs with for always immediately precede the infinitival phrase; there is no minimally different example like it is for you shame to say us dishonor. Such gaps are unexpected if for NP to VP infinitivals are diachronic combinations of PPs and infinitivals.

But if for NP to VP infinitivals were always clausal from their earliest attestation in the late fourteenth century, and if they did not arise through the reanalysis in (3.6), where did they come from? To this question the best answer is that of Fischer et al. 2000: 214–20), who suggest that for NP to VP infinitivals are the successors of plain NP to VP infinitivals of the kind in (3.10–3.12) and (3.16–3.18). As discussed above, there is syntactic evidence that such infinitivals were clausal. Other evidence for this conclusion is seen in (3.25). In (3.25a), it makes no sense to treat godis son as an Experiencer; a good paraphrase is “it was impossible that God’s son would be born from an unchaste woman”. In (3.25b), the Experiencer role is expressed in the PP to hem, so divine thynges must be interpreted as the subject of the passive infinitival.
The change by which *for NP to VP* infinitivals replaced *NP to VP* infinitivals was perhaps an instance of the general morphological recharacterization of dative-marked NPs via prepositions, that is a part (or consequence) of the breakdown of the inherited system of case-marking; but it is more likely that it was an extension of the *for to VP* infinitival pattern (which itself originated in purposive contexts). In any case, crucially, it was not a reanalysis of potentially ambiguous PPs.

Where then did the dative *NP to VP* pattern come from? The pattern is prehistoric in English, at least in extraposed contexts with predicates that assign Experiencer roles. As in (3.12) and (3.26), it is well documented in Old English (and for that matter elsewhere in Indo-European).

(3.26) *Mæl is me to feran.*

'(It) is time (for) me [DAT] to go.'

*(Beowulf* 316a)

Mitchell (1985: vol. 2, pp. 900–1) suggests that dative NPs in examples like (3.12) and (3.26) are syntactically the subjects of clausal NP + infinitival sequences—in terms that are not his, that the structure of (3.26) is *mæl is [me to feran ]* rather than *mæl is [NP me ] [ PRO to feran ]*. His suggestion is based on the structural parallelism in Old English comparative clauses like (3.12b) and (3.27a), to which can be added equivalent Early Middle English examples like (3.27b).

(3.27) a. *Betere þe ys mid anum eage on life to ganne þone bu si mid twam asend on helle fyr.*

'It is better (for) you [DAT] to go in life with one eye than (that) you [NOM] be [SUBJUNCTIVE] sent with two into hell’s fire.' *(Mt (WSCp) 18:9)*

b. *For leouere me is to liggen bi-fore mine leoden þan ich iseo an uolde for-faren heom mid hungre.*

'For (it) is more pleasing (for) me [DAT] to lie (dead) before my people than (that) I [NOM] see [SUBJUNCTIVE] them perish on the ground with hunger.'

*(c1275 (at1200) Lay. Brut* 23613-4)

Mitchell’s point is that since *þe ‘you’ and ich ‘I’ are subjects of subjunctive verbs in the ‘than’ clauses, we should take *þe ‘you’ and me ‘me’ as subjects of the infinitives. This amounts to a suggestion, for example, that the comparison in (3.27a) is between the propositions “you live with one eye” and “you go to hell with two eyes”, and that the Experiencer interpretation of *þe arises only through implicature.

Old English comparative clauses like (3.12b) and (3.27a) usually have subjunctive verbs in the clause of comparison, but infinitives are found in Middle English.
Examples from the end of the Middle English period are cited in (3.18–3.19), and two earlier Middle English examples are cited in (3.28) from Visser (1972: 1026–7).12

(3.28) a. To gete the grace I am more glad Than _thow to aske hit._

(31475 In a tabernacle (Dc 322) 35–36)

b. Better is it thy kinne to been by the genteled, then _thou to gloryfye of thy kinnes gentilnesse._

(1532 rev (c1385) Usk TL (Thynne:Skeat) 2.8)

There is some evidence that the same pattern was possible in Old English. The passage quoted in (3.29) is from the Lindisfarne Gospels, with the Latin text and a word-for-word interlinear gloss in (Northumbrian) Old English; cf. the noninterlinear (West Saxon) translation in (3.12b). Obviously interlinear glosses can furnish only limited information about Old English syntax, but in this case it is striking that a nominative ðe wlonca ‘the rich (man)’ glosses the Latin accusative divitem.

(3.29) Facilius est camelum per foramen acus transire quam divitem intrare in regnum caelorum.

Eaður is camel ðerh þyril nedles oferfæra ðon ðe wlonca ingeonga in rice heofna

'(It) is easier (for) a camel (to) go through the eye of a needle than (for) the rich (man) [nom] (to) enter the kingdom of heaven.’

(MtGl (Li) 19.24)

Since the glossator’s choice diverged from the Latin original, it seems likely that the pattern in (3.18–3.19) and (3.28–3.29) was always possible, and that Old English NP + VP infinitivals were clausal. The broader point is that it does not seem necessary to assume that dative NP + VP infinitivals were originally non-clausal sequences that were reanalyzed as clausal in any attested period.

3.3.3 Summary

I have suggested that English for NP to VP infinitivals descend from a pattern, NP + infinitival, that was already clausal in Old English. It is virtually unattested in that stage of the language because the usual construction, in “than” clauses with an expressed subject, involved a subjunctive verb. (Functionally, the for NP to VP pattern has something of the modal flavor that the subjunctive had.) But it is clearly attested in Middle English, where the evidence is clear that it was clausal. The case of the NP subject was dative when it was in a position to be case-marked by a suitable predicate, like _good_ or _hard_, and otherwise it was nominative. In Middle English, the NP (to) VP pattern was replaced by the for NP to VP pattern, probably as part of the renewal of to infinitivals with for. Finally, _en route_ to Modern English, the alternation between NP

12 The examples in (3.28) are from later sources, but with originals dated to the fourteenth century by their editors. The earliest examples that Visser cites, from Old English (= (3.12b) above) and from the Early Middle English Brut, are misanalyzed; like the examples in (3.27), they have subjunctives rather than infinitives.
to VP infinitivals and for NP to VP infinitivals was resolved in favor of the latter type; this also meant a change in the system of subject case-marking. All these changes fall under the general rubric of analogy as it was described in Section 3.2.

3.4 The English go future

Many authors in the generative historical syntax tradition have investigated the causes of grammaticalization, but I believe that Meillet (1905–06 [1921: 239]) was right to suggest that certain meaning changes originate from the compositionally determined semantics of particular syntactic configurations: “Quelques changements… proviennent de la structure de certaines phrases, où tel mot paraît jouer un rôle spécial.” Such changes are called “permutation” in the classic study of Stern (1931), and they are often the basis of grammaticalization.

I illustrate this with an example from a famous class of grammaticalizations, the shift of motion verbs to future tense markers. Such changes are typologically widespread; as far as I know, the reverse change never occurs. The example is the English be going to future, whose earliest clear examples are from the seventeenth century. Regarding the origin of this category there are two main theories: A minority view holds that it originated as a metaphorical extension from the sense of spatial movement to a temporal sense (Bybee et al. 1994; Deutscher 2006), while the more widespread view is that it arose from an earlier pattern consisting of the motion verb followed by an infinitival clause of purpose (Hopper and Traugott 2002: 88–90). A couple of examples of this earlier pattern are shown in (3.30). The verb in (3.30a) is nonprogressive and unambiguously a motion verb, but in (3.30b) the pattern is of exactly the putative ancestral type.

(3.30)  a. The king worshipped it, and went daily to adore it.
        (1611 Bible Bel 4 [OED])

   b. Lord: Fellow, whither pressest thou?
       Clowne: I presse no bodie sir, I am going to speake with a friend of mine.
       (1598 Robert Greene & Thomas Lodge
        A looking glasse for London and England [LION])

In (3.30b), directional whither favors the motion sense of go, but the disambiguation requires some context. In (3.31), the reanalysis is schematized with functional labels.

(3.31)  a. Earlier: be goingMotion[Purpose Clause to VP]

   b. After reanalysis: be goingProspective Future to VP

Note that reanalysis by itself does not explain why the new future is progressive in form.

I claim that the source of the grammaticalized future is a specialized use of *go* classified as sense 34a in the OED: "to turn *to*, betake oneself *to* (an employment or occupation); to proceed to some specified course of action; to resort to some specified means of attaining one's object". The origin of this use in turn does plainly reflect a metaphorical extension: from motion toward a destination in space, that is, to metaphorical motion toward an activity. Examples in which the activities are named by abstract nouns are given in (3.32).

(3.32) a. Nay now my maister *goes to coniuration*, take heede.
   (1594 Robert Greene *Frier Bacon, and Frier Bongay* [LION])
   b. There were three in the same country, that conspired the death of a companion of theirs, that went about to commit this villany, & as they conspired, so they perfourmed it, strangling him to death with a napkin, as hee was *going to his filthiness*.
   (1597 Thomas Beard *The Theatre of Gods Judgements* [LION])

Examples where the activities are named by gerunds are given in (3.33).

(3.33) a. [T]he mayde tooke the foule sheetes and threw them vnderneath the bed, thinkynge the nexte morning to haue fetched them away. The next time the maydes shuld *go to washynge*, they looked all about and coulde not fynde the sheetes, for Iacke the myllers boy had stollen them away.
   (1529 John Skelton *Merie Tales* [LION])
   b. I *goe to writing or reading*, or suche other businesse as I have.
   (1577 B. Googe *Heresbachs Husb*. I. (1586) 3b [OED])

The examples in (3.32–3.33) have forms of *go* in finite clauses, construed with PPs headed by *to*. In (3.34), the *go* clause is a participial adjunct, again with a PP headed by *to*.

(3.34) O rare, your excellence is full of eloquence, how like a new cart wheele my dame speakes, and she lookes like an *old musty ale-bottle going to scalding*.
   (1600 Thomas Dekker *The shomakers holiday* [LION])

The derived use of English *go* illustrated in (3.32–3.34) is well attested in the late sixteenth century, the critical period immediately before the emergence of the *go* future.

The immediate antecedent of the prospective future *go* is the common pattern in (3.35). Here the *go* clause is a participial adjunct, just as in (3.34), but *to* is followed by an infinitive and not a gerund as in (3.33–3.34).

(3.35) a. Having…two white Leopards and two dragons facing them as *going to engage*, their tongueys are done in curieuxest wyse.
   (1536 Register of Riches in *Antiq. Sarisb*. (1771) 199 [OED])

14 The metaphor, in other words, is that activities are analogized to locations. Note that while metaphor is essential in understanding why this use arose, the metaphor itself does not involve temporal reference.
b. For Zelmane seeming to strike at his head, and he going to warde it, withall stept backe as he was accustomed, she stopt her blow in the aire, and suddenly turning the point, ranne full at his breast.

(1593 Philip Sidney *The Countesse of Pembroke Arcadia* [LION])

c. At that instant had the vnknowne Knight giuen his enemy a wound in the thigh, which was so great . . . as he could not stand, but like a huge mast of a ship, with the storme of this blow laid his greatnes along; the other going to strike off the Prince of Elis his head, was by the blacke Knight hindred, striking off that arme, which was depreiuing the Prince of his life.

(1621 Lady Mary Wroth *The Countesse of Montgomeries Urania* [LION])

Note that these examples do not involve motion toward a destination, but rather action or motion preparatory to an action. Fair translations would be “about to engage”, “getting ready to ward it”, and “being about to cut off his head”.

Participial adjuncts like those in (3.35) are, I claim, where the prospective future sense of *go* emerged. The reason it emerged in this specific syntactic configuration is simple. Such adjuncts convey pragmatically the background to the foregrounded event expressed in the main clause, for example he . . . stept back in (3.35b), or the other . . . was . . . hindred in (3.35c). Therefore, they convey a specific temporal relationship between main-clause and adjunct-phrase events: The main-clause event occurs while the adjunct-phrase event is in progress. In (3.35b), for example, the event of stepping back occurs while the event of *going to ward it* “getting ready to ward it” is in progress. It is the two events’ partial overlap and temporal proximity that favors a prospective future sense. This new sense would not arise in examples like (3.32a) or (3.33b), because in such examples, due to their nonprogressive aspect, the betaking or proceeding expressed by *go* is depicted as a single event (a temporal unity) with what is denoted by the VP. Participial adjuncts, in short, highlight an ongoing event that has another event as its prospective successor.15

From examples like those in (3.35), with participial adjuncts, the prospective sense spread to finite uses of *going*. The earliest case known to me, in (3.36), has no motion toward a destination. The gentleman is distracted, but he need not go anywhere to remove his garters and make them into a noose; “as he was getting ready to make a noose” is the sense.16

---

15 Regarding the chronology, note that for expository clarity I have written as though the examples in (3.32–3.33), (3.34), and (3.35) represent three successive stages of development. There is no textual evidence for this, and I see no reason to doubt that all three patterns became possible at about the same time.

16 The famous example in (i) predates (3.36) by over 125 years.

(i) `Therefore, while thysh unhappy sowle, by the vyctory[os]e pompys of her enmyes was goyng to be broughte into helle for the synne and onleful lustys of her body, loe, sodenly anon came done an bye fro heuyn a gret lyght, by the whyche bryghtnes and bemys the forseyde wykyd spiritys and minystrys of the Deuyl ware dullyd and made onmyghty and fyl done to the gronde wyth the sowle that they had.`

(1483 Monk of Eynsham 848–854 [Easting 2002: 53–5])
The historical syntax problem

(3.36) I haung shifted no sockes in a sea night, the Gentleman cryed foh; and said my feete were base and cowardly feete, they stuncke for feare. Then hee knock’d my shooe about my pate; and I cryed O, once more. In the meane time comes a shag-hair’d dogge by, and rubbes against his shinnes. The Gentleman tooke the dog in shagge-haire to be some Watch-man in a rugge gowne; and swore hee would hang mee vp at the next doore with my lanthorne in my hand, that passengers might see their way as they went without rubbing against Gentlemens shinnes. So, for want of a Cord, hee tooke his owne garters off; and as he was going to make a nooze, I watch’d my time and ranne away.

(1611 Cyril Tourneur The atheist’s tragedie [LION])

Interestingly, though it may seem surprising for a new verbal category to originate in participial adjuncts, this is also precisely the context where the English progressive in -ing itself originated, as shown by Dal (1952). She demonstrated that -ing forms were originally used as adjuncts to verbs of motion in sentences like þei kome sailing in þe sea’ (William of Palerne 4938), and were extended to uses with be (e.g. be sailing) during Middle English. In any case, the chronology of the go future seems clear.

In (3.35–3.36) go remains a control verb whose subject is an agent engaging in an activity. The shift to a raising verb expressing a purely prospective sense, “to be about to or on the verge of”, is semantically minimal (since the antecedent meaning has only a general activity sense), and yields the modern pattern. The examples in (3.37–3.38), from around 1630 and afterwards, show passive infinitives with animate subjects in (3.37) and inanimate subjects in (3.38).

(3.37) a. He is fumbling with his purse-strings, as a school-boy with his points when he is going to be whipped, till the master weary with long stay forgives him.

(1628 Earle Microcosmography §19 [mod. spelling edn. Osborne 1933: 32–3]; Mossé [1938: 166])

b. The latter end of this woeful night, poor mourning Hazier the Turk was sent to keep me; and on the morrow the governor entered my room, threatening me still with more tortures, to confess; and so caused he every morning, long before day, his coach to be rumbled at his gate, and about me, where I lay, a great noise of tongues, and opening of doors; and all this

The reason for such an early outlier has been unclear to most observers, but it is interesting that it has the same aspectual character as (3.36): as he was going to make a nooze, I ran away = while she was going to be brought into hell, a great light suddenly came down.
they did of purpose to affright and distract me, and to make me believe I was going to be racked again, to make me confess an untruth; and still thus they continued every day of five days to Christmas.

(1632 William Lithgow *Travels & voyages* [mod. spelling edn. Lithgow 1814: 371])

(3.38) a. Bellafront: How now, what ayles your Master? … Where is his Cloake and Rapier?
Orlando: He has giuen vp his Cloake, and his Rapier is bound to the Peace: If you looke a little higher, you may see that another hath entred into hatband for him too. Sixe and foure haue put him into this sweat.
Bel.: Where’s all his money?
Orl.: ’Tis put ouer by exchange: his doublet was going to be translated, but for me…

(1630 Thomas Dekker *The honest whore, Part II* [LION])

b. You hear that there is money yet left, and it is going to be layd out in Rattels, Bels, Hobby-Horses, brown paper, or some such like sole commodities.

(1647 Nathan Field & John Fletcher, *The honest man’s fortune* [LION])

In these examples a control analysis is unlikely; they are the earliest true prospective futures. Note especially the utterly non-agentive imprisoned Lithgow in (3.37b) and Dekker’s inanimate doublet in (3.38a). In neither case is it possible to take the subject as engaging in any activity or undergoing any motion.

This account explains the genesis of the English go future in terms of syntactic patterns that were frequent in the language at the relevant time, and it has the virtue that the source and output patterns are functionally close. Moreover, it explains why the English go future is progressive in form. In the source pattern, *go to VP* meant “proceed to VP.” The progressive signifies that the action is viewed as ongoing, so that *be going to VP* meant “be proceeding to VP” or “getting ready to do the action.” A nonprogressive might not have yielded a prospective future because a nonprogressive already encompasses the resulting action; that is, *go to VP “proceed to the action” implies the initiation of the action of the VP. Only from the event-internal perspective of a progressive is the activity of the infinitival phrase prospective, and so only the progressive form of *go* is expected to yield the English prospective future.

Mossé (1938: 165) was thus about twenty years off when he wrote that “1650 représente, grosso modo, le moment où le nouveau tour est établi en anglais.” An example from Burton’s *Diary* is called “relatively early” by Danchev and Kyto (1994: 63), who did not realize that 1567 was a misprint for 1657 in Mossé (1938: 166); their mistake was reproduced by Tabor (1994: 151) and may underlie Traugott and Dasher’s (2001: 84) statement that “[u]nambiguous examples of the temporal do not occur until the later sixteenth century.”
3.5 Conclusion

I have argued that reanalysis plays a less interesting role in syntactic change than many of our handbooks and leading theorists have argued: Three of the most famous alleged reanalyses are simply mirages. The best explanations for these changes mainly involve either analogy in the broad sense (the generalization of existing syntactic regularities) or grammaticalization.

What we have seen in Section 3.4, moreover, is typical of grammaticalization. We cannot understand how one thing has turned into another without locating the pivot context in which the change originated and understanding how the properties of that context invite the change. A central role is often played by the compositional semantics of the pivot context, as in Section 3.4 and in other cases listed in Table 3.1. For example, to explain the evolution of Romance synthetic futures from Latin habeō ‘have’, Benveniste (1968) argued that the future sense arose via an intermediate sense of obligation or predestination not unlike the English necessity sense of have to. This was facilitated by a language-specific morphological gap and by the use of passive infinitives in the crucial construction. Similarly, Vincent (1982) and Carey (1995) argue that the emergence of ‘have’ perfects (in Germanic and Romance) depended crucially on the pragmatics of certain semantic verb classes. Other factors are also sometimes said to play important roles in syntactic change, including extravagance (Hasselmath, 1999), economy (Roberts and Roussou, 2002, 2003), and grammatical simplification (Kiparsky, this volume). Perhaps it is too early to offer a general

<table>
<thead>
<tr>
<th>Table 3.1 Syntactic change: permutations and compositional semantics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language and change</strong></td>
</tr>
<tr>
<td>English activity verb do &gt; habitual (Garrett, 1998)</td>
</tr>
<tr>
<td>English deontic ought &gt; epistemic (Nordlinger and Traugott, 1997)</td>
</tr>
<tr>
<td>English habitual auxiliary do &gt; periphrastic (Garrett, 1998)</td>
</tr>
<tr>
<td>English inchoative get &gt; passive (Fleisher, 2006)</td>
</tr>
<tr>
<td>Romance possession verb ‘have’ &gt; future (Benveniste, 1968; Roberts and Roussou, 2002)</td>
</tr>
<tr>
<td>Romance and English ‘have’ &gt; perfect (Vincent, 1982; Carey, 1995)</td>
</tr>
</tbody>
</table>
assessment of the role of such factors, as opposed to more specific factors, in understanding why particular changes like those in Table 3.1 happened in the particular contexts where they occurred, or why similar changes are common in languages of the world, but I hope that these questions will help determine the research agenda of our field in the coming years.

Appendix: Text corpora cited
References to the following online text corpora are made throughout:

CMEPV Corpus of Middle English Prose and Verse
(http://quod.lib.umich.edu/c/cme/)

LION Literature Online (http://lion.chadwyck.com/)

MED Middle English Dictionary, online edition
(http://quod.lib.umich.edu/m/med/)