

# 10

## Investigating the past of the futurate present

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### 10.1 Introduction

This chapter addresses the question of whether the development of modals as a morphosyntactically distinct class of auxiliaries in English had systematic effects on the meanings expressed by other verb forms. Here, we focus on how the expression of statements about the future may have changed with the development of the modal auxiliaries. In Present-Day English (PDE) the modals *will* and, to a lesser extent, *shall* express future meanings; these modals are fully integrated into the grammatical system of tense and mood. This raises the question, however, of how English expressed future meanings before the modals had developed as functional elements inserted in T, that is, before the beginning of the sixteenth century.

We pursue this inquiry on the assumption that different languages, and therefore also different stages of the same language, can have different inventories of features and syntactic projections, as argued by Bobaljik and Thráinsson (1998) and Cowper and Hall (2017), and in contrast to the strictest version of the cartographic approach, articulated by Cinque and Rizzi (2010). Further, we adopt the view, consistent with that put forward for phonology by Dresher (2009) and Hall (2007), that grammatically active features are contrastive. By ‘grammatically active’, we mean features that are obligatory in certain contexts and are involved in syntactic processes such as agreement or movement (Wiltschko 2008b; Cowper and Hall 2014, 2017). If an interpretable feature *F* is grammatically active, and thus contrastive, then its absence is interpreted semantically as ‘not *F*’.<sup>1</sup> Features or properties that are not grammatically active are not contrastive; the absence of a

<sup>1</sup> While our discussion is framed in terms of privative features, nothing in our account crucially depends on features being privative rather than binary. With binary features, the contrast here would be expressed as holding between the marked and unmarked values of the feature [ $\pm F$ ]. (See Cowper and Hall 2014 for further discussion of feature valency.)

non-contrastive property G is not necessarily interpreted as ‘not G’, although pragmatic principles may favour a ‘not G’ inference in some contexts.

For example, English exhibits a grammatical contrast between singular and plural, but does not grammatically distinguish plurals greater than two from duals. The absence of grammatical plurality in (1a), therefore, contrasts with its presence in (1b), and (1a) cannot be interpreted as plural.<sup>2</sup> This differs from the situation with a non-contrastive element such as the modifier *two* in (1c). The absence of *two* in (1b) does not contrast grammatically with its presence in (1c), and (1b) therefore does not exclude a dual reading.

- (1) a. this book                   (exactly one book)  
       b. these books               (two or more books)  
       c. these two books       (exactly two books)

Similarly, the quantifier *both* in (2a) encodes contrastive definiteness and non-contrastive dual number. The absence of dual marking, as in (2b) or (2d), does not exclude the possibility that there are only two books, whereas the absence of definite marking, as in (2c) or (2d), gives an indefinite interpretation.

- (2) a. both books   (definite; exactly two books)  
       b. the books   (definite; two or more books)  
       c. two books   (indefinite; exactly two books)  
       d. books       (indefinite; two or more books)

Implementing this view of contrastive features in the verbal inflectional domain, we assume that in PDE a contrastive feature MODALITY distinguishes modally marked clauses expressing futurity, possibility, or necessity from other finite clauses, following Cowper and Hall (2017). In PDE, grammatical MODALITY is spelled out by the modal auxiliaries (*will/would, shall/should, can/could, may/might, and must*).<sup>3</sup> In this chapter we use the term ‘modals’ to refer only to these obligatorily finite modal auxiliaries and not to periphrastic expressions like *have to* or *be going to*, which we assume do not spell out the contrastive feature MODALITY. See Section 10.4 for more on the differences between these periphrastic constructions and the true modals.

<sup>2</sup> We set aside the question of whether the semantics of plural nominals can include singular reference (e.g. Sauerland 2003; Zweig 2009). What is relevant here is the grammatical contrast between singulars and plurals, which gives rise to the interpretation of *this book* as contrastively not plural.

<sup>3</sup> MODALITY corresponds to the feature IRREALIS proposed by Cowper (2005), which is spelled out in Spanish and many other languages by the future and conditional tense forms. We take no position here on whether any subclasses of English modals are characterized by contrastive features, encoding properties like modal force (possibility vs necessity) or modal flavour (epistemic vs deontic vs dynamic vs circumstantial, etc.).

We further assume, as argued by Cowper and Hall (2017), that the appearance of MODALITY in the English Infl system resulted from the reanalysis of the English modal verbs as Infl heads in Middle and Early Modern English (Closs 1965; Lightfoot 1979; Roberts 1985; van Kemenade 1992; Warner 1993; van Gelderen 2004). Before this change took place, the premodals<sup>4</sup> were verbs. Just like the dual meaning associated with the word *two*, their modal meaning came from the encyclopedic content associated with their roots (Marantz 1997), not from a featural specification relevant to the grammar. Once the modals were reanalysed as Infl heads and the contrastive feature MODALITY was added to the system, MODALITY was spelled out by the new class of modals. The absence of a modal auxiliary thus came to be interpreted as signalling the contrastive absence of that feature.

As a result of this change, in Present-Day English modals *will* and *shall* spell out a specific flavour of grammatical modality, which we informally call temporal modality. These auxiliaries are thus used to express futurity, alongside other periphrastic constructions like *be going to*. The simple present and the present progressive can still be used with futurate meaning in matrix clauses, but only when the clause describes a plan or a schedule that holds at speech time (Lakoff 1971; Vetter 1973; Huddleston and Pullum 2002), as in the examples in (3).

- (3) a. The train arrives this evening.  
b. The children are going to the beach tomorrow.

In the view we adopt here, this restriction is due to the contrastive absence of MODALITY in such clauses. Simple predictive clauses, by contrast, like those in (4), require an overt expression of futurity, as shown in (5). The modal form is also felicitous with plans and schedules, as shown in (6), though the planned/scheduled nature of the event is less salient when the modal is used.<sup>5</sup>

- (4) a. <sup>#</sup>The hurricane arrives on the east coast the day after tomorrow.  
b. <sup>#</sup>The candidate's reputation is taking a nosedive three days from now.  
c. <sup>#</sup>That director certainly wins an Oscar next year.
- (5) a. The hurricane **will** arrive on the east coast the day after tomorrow.  
b. That director **will** certainly win an Oscar next year.
- (6) a. The train **will** arrive later this evening.  
b. The children **will** go to the beach tomorrow.

<sup>4</sup> This term is due to Lightfoot (1979) and refers to the earlier English verbs that later developed into the modal auxiliaries.

<sup>5</sup> Future-referring present-tense forms are also possible—in fact required—in various adjunct clauses, including conditional antecedents and *when* clauses; we return to these in Section 10.4.

This view of PDE modals as spelling out the contrastive feature MODALITY, along with the absence of this class at an earlier stage, leads to the following prediction not explored by Cowper and Hall (2017): before the English modals were established as a class of auxiliaries spelling out the contrastive feature MODALITY, the simple present was not contrastively non-modal and should thus have been available to express the full range of futurate meanings. In what follows, we demonstrate that this prediction is correct, based on historical corpus data. In Sections 10.2 and 10.3 we lay out our methodology and results, which support the hypothesis that the simple present was able to express future meanings in earlier stages of English. In Section 10.4 we turn to preliminary evidence that the grammatical status of MODALITY may again be changing in contemporary English, leading to a new expansion of possible futurate uses of the simple present.

## 10.2 Methodology

### 10.2.1 The empirical challenge

Testing this prediction faces two main challenges. The first is finding a reliable way to identify future-referring clauses at earlier stages of English, in the absence of an obligatory modal element such as *will* or *shall*. Though some examples can be identified from context, there is no way to automatically distinguish instances of the present tense with future reference from those with present reference; searching for morphologically present-tense verb forms yields an intractably high number of false positives. Other potential methods of narrowing searches, such as requiring the presence of a future adverbial, prejudge the distribution of futurate presents and thus could skew the data in unknown ways.

The second difficulty is in making meaningful comparisons across stages in the development of English. If the frequency of futurate presents does appear to change over time, we want to be able to say with confidence that these changes reflect changes in the language itself, rather than differences in the types of texts examined from different periods.

Both of these issues can be resolved by looking at a single text that was translated into English at different historical periods. As for many European languages, the largest such text is the Christian Gospels, which have Old English, Middle English, and Early Modern English versions widely available. Furthermore, the source languages (Greek and Latin) of the translations have morphological future tenses, providing a convenient means of independently identifying future-referring clauses. Comparison of these separate translations forms the basis for the analysis presented here.

### 10.2.2 The texts

We constructed a corpus with five versions of the Gospels: the original Greek New Testament (Westcott and Hort [1881] n.d.); the Latin Vulgate (Hetzenauer 1914); the Anglo-Saxon Gospels (ASG), which were translated from the Latin *c.* 993 (Bosworth and Waring 1874); Purvey's revision of the Wycliffe Bible, translated from Latin *c.* 1388 (Purvey n.d.);<sup>6</sup> and the King James Version (KJV), which was translated from the Greek in 1605–11, with recourse to earlier translations (Cogliano 2004).

These translations provide a consistent text rendered across three periods in the development of English, but they do present certain drawbacks from the perspective of linguistic analysis. The texts are translations, not original vernacular compositions. They are scriptural, and thus are likely to represent a markedly formal register. They were created by a small group of translators, not by a broad cross-section of speakers of the English of the time. And, finally, some patterns may be due to deliberate policy choices in translation, rather than reflecting the natural way of expressing a meaning at the time.<sup>7</sup>

Despite these drawbacks, the selection of texts has the advantage of allowing the comparison of semantically equivalent clauses from multiple stages of English. The remainder of this section describes in more detail the database on which this chapter's analysis is based.

### 10.2.3 The database

The database includes all verses of the Gospels that contain either *will* or *shall* in the King James Version, as well as all verses that contain a verb in the future indicative or aorist subjunctive in the original Greek, since these two were the most common correspondents of clauses with *will* or *shall* in the King James Version. Our purpose in including all of these verses was to cast a relatively wide net for potentially future-referring verb forms at other stages of English. For verses with more than one clause with potential future reference (i.e. more than one instance of *will* or *shall*, or more than one verb in a relevant form in the original Greek), multiple database records were created to give a separate record for each potentially relevant clause. Each record is linked to the corresponding verse in all

<sup>6</sup> We chose Purvey's revision over the original Wycliffe Bible because it is thought to be more 'rhythmical and idiomatic' (Heaton 1913: 285), and thus may be more representative of the English of the time. The Greek and Latin versions were included, as both were separately used as sources for English translators. After the fact, we also added three other versions to our data set—the Tyndale Bible, Luther's German version, and the older version of the Wycliffe Bible. However, neither the Tyndale nor the older Wycliffe shed additional light on the questions pursued here. A full examination of the Luther Bible and its relevance to these issues awaits further research.

<sup>7</sup> We discuss one such potential interference in Section 10.3.5, related to a surprisingly high rate of modal *shall* in the Purvey translation.

other versions, allowing comparison across translations and with the original source of translation. This resulted in a database with a total of 4,538 records.

Each record's clause was manually coded for the flavour of modality expressed, so as to isolate those with future meaning. The relevant codes were 'futate', applied to any clause that referred to a future time, 'mandatory', applied to clauses expressing deontic obligation (as *should* commonly does in PDE), and 'volitional', applied to clauses expressing a desire or intention on the part of the subject. Clauses that were potentially ambiguous between two modal flavours were coded for both; all such ambiguous clauses were excluded from subsequent analysis, as were any where the modal flavour was unclear. Clauses were further coded for whether they were a conditional antecedent (introduced by *if*), a temporal adjunct clause (introduced by *when*), or a *wh-ever* free relative clause; all records where the relevant clause fell into one of these types were similarly excluded from further analysis. Coding was done primarily on the basis of the King James Version, but doubtful cases were checked against other versions.

On the basis of this coding, of the total 4,538 records in the database, we were left with 1,118 records coded as futurate that were not excluded for some reason. These 1,118 are the focus of the analysis developed in this chapter.

## 10.3 Results and discussion

### 10.3.1 Overview of results

Table 10.1 summarizes the expression of future time reference across the five versions of the New Testament included in our database.<sup>8</sup>

Before moving on to a more detailed discussion of the changes that can be observed in English, some general observations can be made about differences between these versions. In Greek and Latin, the majority of future-referring clauses used a morphologically future form of the verb (around 88 per cent in both cases). In the Anglo-Saxon Gospels, by contrast, the majority—85 per cent—of such clauses involved the present tense. In Purvey, 84 per cent involved a modal, almost always *shall*, and then in the King James, over 99 per cent were expressed with a modal, about three-quarters of the time with *shall*, and one-quarter with *will*. The three English translations of Luke 13:24, shown in (7),<sup>9</sup> illustrate the progression rather nicely.

<sup>8</sup> Some forms tallied here exist in only one of the languages, and are thus systematically absent from all other versions. Only Greek and Latin have morphological future tenses, for example, while only English has the class of modal auxiliaries of interest here. Many present-tense forms at the relevant stages of Old English were also syncretic for indicative and subjunctive. Rather than group such forms with either class, we have counted them separately here.

<sup>9</sup> We provide detailed morphological glossing of the Old English and Middle English forms only where the morphemes are relevant to the discussion.

**Table 10.1** Expression of future meaning in all five versions of the Christian Gospels

<i>n</i> = 1,118	Greek		Vulgate		ASG		Purvey		KJV	
Future indic.	861	77.0%	896	80.1%	–	–	–	–	–	–
Aorist subj.	129	11.5%	–	–	–	–	–	–	–	–
Fut. perf. indic.	–	–	51	4.6%	–	–	–	–	–	–
Fut. periphr.	–	–	34	3.0%	–	–	–	–	–	–
<b>Total future</b>	<b>990</b>	<b>88.6%</b>	<b>981</b>	<b>87.7%</b>	–	–	–	–	–	–
Imperf. subj.	–	–	18	1.6%	–	–	–	–	–	–
Pluperf. subj.	–	–	9	0.9%	–	–	–	–	–	–
Perf. indic.	–	–	5	0.4%	–	–	–	–	–	–
<b>Total past</b>	–	–	32	2.9%	–	–	–	–	–	–
Pres. indic.	39	3.5%	29	2.6%	784	70.1%	48	4.3%	7	0.6%
Pres. syncr.	–	–	–	–	104	9.3%	16	1.4%	–	–
Pres. subj.	3	0.3%	43	3.8%	60	5.4%	23	2.1%	–	–
<b>Total present</b>	<b>43</b>	<b>3.8%</b>	<b>72</b>	<b>6.4%</b>	<b>948</b>	<b>84.8%</b>	<b>87</b>	<b>7.8%</b>	<b>7</b>	<b>0.6%</b>
<i>may/magan</i>	–	–	–	–	5	0.4%	–	–	–	–
<i>shall/scealon</i>	–	–	–	–	4	0.4%	911	81.5%	824	73.7%
<i>should</i>	–	–	–	–	–	–	24	2.1%	42	3.8%
<i>will/nyll</i>	–	–	–	–	14	1.3%	4	0.4%	221	19.8%
<i>would</i>	–	–	–	–	–	–	4	0.4%	24	2.1%
<i>wurðan</i>	–	–	–	–	1	0.1%	–	–	–	–
<b>Total modal</b>	–	–	–	–	24	2.1%	<b>943</b>	<b>84.3%</b>	<b>1111</b>	<b>99.4%</b>
Other	86	7.7%	33	3.0%	146	13.1%	88	7.9%	–	–

## (7) a. ASG:

...for ðām ic secge ēow, manega sēcaþ ðæt  
 ...because I say you.DAT.PL many seek.PRES.PL that  
 hig in-gān, and hī ne magon.  
 they in-go and they not may.PRES.PL

## b. Purvey:

...for Y seie to you, many seken to entre, and  
 ...for I say to you, many seek.PRES.PL to enter and  
 thei schulen not mowe.  
 they shall.PRES.PL not may.INF

## c. KJV: ... for many, I say unto you, will seek to enter in, and shall not be able.

In (7a), present indicative *sēcaþ* and *magon* are both used with future time reference. In (7b), *seken* is a present-tense form (one of those syncretic for indicative and subjunctive), while in the second clause *SHALL* expresses futurity, followed by an infinitival form of *MAY*—a form that by Early Modern English was no longer possible. Finally, in (7c), both clauses have modals expressing futurity.

The results in Table 10.1 provide a general confirmation of our prediction. What we analyse as the lack of a grammatically contrastive feature MODALITY in Old English correlated with a wider semantic range for the simple present tense. As the modals were established as a syntactically distinct class, the range of uses available to that verb form narrowed, until (Early) Modern English, where modals are virtually obligatory in future-referring clauses. In the next sections we discuss the stages of this change in more detail.

### 10.3.2 The initial state: Old English

As Table 10.2 shows, present tenses make up a large majority of future-referring forms in the Anglo-Saxon Gospels. Finite present-tense clauses in Old English could be either indicative or subjunctive, and both forms were used to express future meaning. The indicative-subjunctive distinction was already in decline at this point, with many syncretic forms. In the Anglo-Saxon Gospels, unambiguously subjunctive forms appear only 5.4 per cent of the time in future-referring clauses, while unambiguously indicative forms are used 70.1 per cent of the time. Interestingly, though the Old English subjunctive was sometimes associated with modal or irrealis contexts, we found no evidence that the subjunctive was preferentially used to express futurity. (Traugott 1992 offers a detailed discussion of how these two moods were used in Old English, noting that the subjunctive typically expressed doubt, desire, obligation, or evidentiality, and that the distinction between subjunctive and indicative was already beginning to erode during this period.)

**Table 10.2** Future-referring clauses in the Anglo-Saxon Gospels

Present indicative	784	70.1%
Present syncretic	104	9.3%
Present subjunctive	60	5.4%
<b>Total present</b>	<b>948</b>	<b>84.8%</b>
<i>may/magan</i>	5	0.4%
<i>shall/scealon</i>	4	0.4%
<i>will/nyll</i>	14	1.3%
<i>wurðan</i>	1	0.1%
<b>Total modal</b>	<b>24</b>	<b>2.1%</b>
Other	146	13.1%

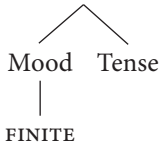
On this basis, we infer that the so-called present tense in Old English was merely non-past, and not contrastively non-modal or non-future. It thus freely occurred with future interpretations.<sup>10</sup>

<sup>10</sup> As pointed out by a reviewer, numerous scholars (e.g. Wischer 2010) have observed that of the two verbs meaning 'be' in Old English, *beon* and *wesan*, *beon* is more frequently used in clauses with

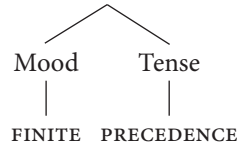


We can express this formally by saying that the Old English tense-mood system lacked the feature MODALITY. Old English finite clauses can be characterized by the feature dependencies in (8), adopting the framework in Cowper (2005). The privative tense feature PRECEDENCE indicates that the state or event denoted by a clause precedes its temporal anchor, and thus distinguishes past from non-past forms (Cowper 2005: 15). On the Mood branch of the dependency tree, FINITE is a purely syntactic feature, representing the ability to assign structural subject case and display  $\varphi$ -feature agreement (Cowper 2005: 17). A clause that lacks FINITE would be non-finite; a clause that has FINITE but not DEIXIS is subjunctive. The addition of DEIXIS links the clause to the deictic centre of the utterance, making it indicative. The dependence of DEIXIS on FINITE at this stage encodes the fact that all indicative clauses are finite, but not all finite clauses were indicative. The distinction between indicative and subjunctive clauses was already beginning to be lost in Old English; in Present-Day English, FINITE and DEIXIS have come to be bundled, so that neither occurs without the other.<sup>11</sup>

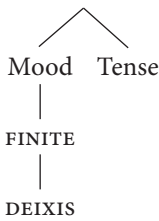
(8) a. Non-past subjunctive



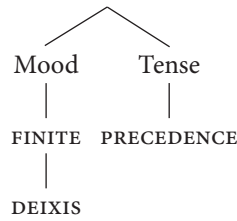
c. Past subjunctive



b. Non-past indicative



d. Past indicative



future interpretations. Of the 1,118 future-referring clauses in our data set, 262 contained a present-tense form of *beon*, while 27 contained a present or preterite form of *wesan*. However, since three-quarters of the future-referring clauses in our data set contained neither of these two verbs, and since both *beon* and *wesan* are used in future-referring clauses, it cannot be said that *beon* is a grammatical marker of futurity in Old English.

<sup>11</sup> The loss of the subjunctive seems to have been very gradual, beginning in Old English with increasing syncretism between the subjunctive and the indicative, but continuing through the Middle English period (Fischer 1992; Traugott 1992). Since we found no connection between the subjunctive and future time reference at any stage, we do not discuss it in any detail.

As noted above, the feature DEIXIS connects the clause to the deictic centre of the utterance—roughly, the speaker’s state of knowledge of the world at the time of utterance (Cowper 2005: 17–18). In the unmarked case, the proposition denoted by the clause is asserted as belonging to that knowledge, that is, it is something the speaker believes to be true. In systems that have the additional feature MODALITY dependent on DEIXIS, MODALITY introduces a marked relation between the proposition and the deictic centre, indicating that the proposition is something that must or may turn out to be true, rather than something that is already part of the speaker’s knowledge. The proposition may describe an event that has not happened yet, or one that already has happened or is happening but that the speaker does not have direct knowledge of. Thus, in Present-Day English we find sentences such as *It will rain tomorrow* (referring to a future event) and *That will be Hustav at the door now* (in which whoever is at the door is already there, but unseen by the speaker, who predicts that it will turn out to be Hustav). In these examples, MODALITY is spelled out by *will*.

In Old English, although the precursors of the modals already exist and have at least some of the same senses they have in PDE, there is no contrastive feature MODALITY in the inflectional system. The modals at this point are lexical verbs, not realizations of T. Because MODALITY does not occur in the system at all, its absence is not distinctive; a clause that bears FINITE and DEIXIS may have either the unmarked or the marked relation to the deictic centre, even in the absence of a premodal, in the same way that *the books* may be semantically either plural or dual, even in the absence of the numeral *two*.

### 10.3.3 The end state: Modern English

By the Early Modern English period, represented in our database by the King James Version of the Gospels, the inflectional system of English had undergone substantial reorganization. At this stage, the modals *shall* and *will* are used nearly categorically in the future-referring clauses contained in our database, as can be seen in Table 10.3. In our data, *shall* and *should* predominate, but *will* and *would* are also fairly robust, occurring in approximately 22 per cent of all future-referring clauses.

**Table 10.3** Future-referring clauses in the King James Version

<i>shall</i>	824	73.7%
<i>should</i>	42	3.8%
<i>will</i>	221	19.8%
<i>would</i>	24	2.1%
<b>Total Modal</b>	<b>1,111</b>	<b>99.4%</b>
<b>Present indicative</b>	<b>7</b>	<b>0.6%</b>

The preponderance of the modals here might be taken to be an artefact of how the data were selected, because our database systematically includes every verse from the KJV that contains either *shall* or *will*. Note, though, that the database also includes all those verses that contained either the future indicative or the aorist subjunctive in the original Greek; the addition of these verses does not reduce the predominance of *shall* and *will* in the KJV. As Table 10.3 shows, only seven of the forms in the KJV that translate a Greek future indicative or aorist subjunctive have no modal. On subsequent examination, some of these seven appear to have generic interpretations, suggesting that the Greek tense forms in those verses were employed in their so-called ‘gnomic’ senses (Burton 1898: 21, 36; Wallace 1996: 562, 571). For example, consider the following sentence from Matthew 16:26:

- (9) For what is a man profited, if he shall gain the whole world, and lose his own soul?

In the main clause, the simple present indicative *is profited* corresponds to Greek *ōphelēthēsetai*, a future indicative passive form of *ōpheleō* ‘benefit’. The sentence does not refer to any specific event or time; rather, it poses a rhetorical question about a hypothetical event or a general type of event. Like the KJV, the Vulgate uses a present-tense form here (*prōdest*, ‘is useful, benefits’). Other verses in which a simple present in the KJV corresponds to a Greek future indicative or aorist subjunctive that can plausibly be read as gnomic are Matthew 18:12, Luke 5:36, and John 16:22.

In two further cases, a present indicative in the KJV corresponds to a future tense in the Greek, but does not appear to render its futurate meaning. These are in Matthew 11:23 and Luke 10:15:

- (10) a. KJV, Matthew 11:23: And thou, Capernaum, which art exalted unto heaven, shalt be brought down to hell.
- b. Greek, Matthew 11:23:
- |      |       |                      |     |      |         |                  |
|------|-------|----------------------|-----|------|---------|------------------|
| Kai  | σύ,   | Καφαρναούμ,          | μή  | ἕως  | οὐρανοῦ | ὑψωθήσῃ,         |
| Kai  | sy,   | Kapharnaoum,         | mē  | heōs | ouranou | hypsōthēsē,      |
| and  | you   | Capernaum            | not | to   | heaven  | elevate.FUT.PASS |
| ἕως  | ᾧδου  | καταβήσῃ!            |     |      |         |                  |
| heōs | hadou | katabēsē             |     |      |         |                  |
| to   | Hades | cast.down.FUT.MIDDLE |     |      |         |                  |
- ‘And you, Capernaum, will not be lifted up to heaven; you will be cast down to Hades!’
- c. KJV, Luke 10:15: And thou, Capernaum, which art exalted to heaven, shalt be thrust down to hell.

d. Greek, Luke 10:15:

Καὶ σὺ, Καφαρναοῦμ, μὴ ἕως οὐρανοῦ ὑψωθήσῃ,  
 Kai sy, Kapharnaoum, mē heōs ouranou **hypsōthēsē**,  
 and you Capernaum not to heaven elevate.FUT.PASS  
 ἕως τοῦ ᾅδου καταβήσῃ.  
 heōs tou hadou katabēsē.  
 to the Hades cast.down.FUT.MIDDLE  
 ‘And you, Capernaum, will not be lifted up to heaven; you will be cast  
 down to Hades.’

In these two nearly identical verses, the Greek text that we relied on has a negated future, but the KJV has an affirmative present-tense relative clause. The translators of the KJV may have been working from a different variant of the Greek text, or they may have been following this rendition of Luke 10:15 in the Vulgate:

(11) Vulgate, Luke 10:15:

Et tu Capharnaum usque ad cælum exaltata,  
 and you Capernaum all.the.way to heaven exalt.PASS.PERF.PART,  
 usque ad infernum demergeris.  
 all.the.way to hell plunge.FUT.PASS  
 ‘And you, Capernaum, having been exalted to heaven, will be plunged into  
 hell.’

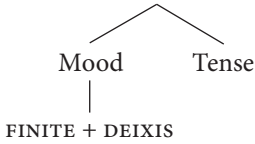
In either case, it appears that the KJV translations of these two verses are not intended to have futurate interpretations. Taken together with the verses in which the Greek tense has a gnomic reading, this suggests that even when a KJV simple present indicative corresponds to a future or an aorist subjunctive in the Greek, it seldom, if ever, expresses future time reference.

We conclude that by this stage the simple present tense in English is contrastively non-modal. We model this by proposing that, by Early Modern English, MODALITY was fully established as a contrastive grammatical feature of the English Infl system. Modern English finite clauses can be characterized by the feature dependencies in (12).<sup>12</sup> Here, as before, PRECEDENCE distinguishes past from non-

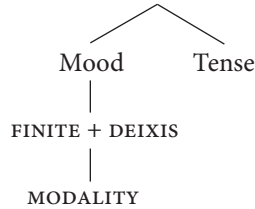
<sup>12</sup> In (12) we show the features FINITE and DEIXIS as bundled, implying the loss of a contrast between the subjunctive and the indicative, the subjunctive being characterized by FINITE in the absence of DEIXIS. Although subjunctive forms were still present in Early Modern English (Rissanen 1999: §4.3.3), and a few remain even in PDE in formal registers and in fixed expressions, the subjunctive in Modern English can be regarded as essentially vestigial, its decline having been helped along by the erosion of the overt morphological distinction between it and the indicative (Lass 1999: 162). This bundling of FINITE and DEIXIS, though, is not crucial to the change we are concerned with here, which is the introduction of MODALITY as a contrastive feature of T, dependent on DEIXIS. For more discussion of the decline of the subjunctive and the rise of MODALITY, see Section 10.3.9; for a brief discussion of the mandative subjunctive, see note 22 in Section 10.4.

past clauses, but now MODALITY distinguishes modal from non-modal clauses, restricting the semantic range of the non-modal forms.

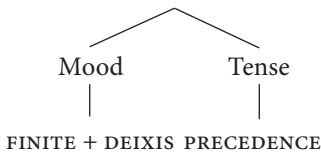
(12) a. Non-past non-modal



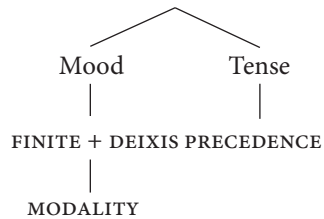
c. Non-past modal



b. Past non-modal



d. Past modal



As a result, by Early Modern English the simple present tense could no longer be used in modal clauses, which now contain MODALITY, just as it cannot be used in clauses containing the feature PRECEDENCE.

### 10.3.4 Interim summary

The data discussed in Sections 10.3.2 and 10.3.3 appear to bear out our main prediction. In Early Modern English, future clauses are categorically expressed with modals, while in Old English, they are categorically expressed with present-tense forms. This supports the account proposed in Cowper and Hall (2013), in which MODALITY was not part of the inflectional system of Old English, and present-tense forms were thus not contrastively non-modal. By Early Modern English, MODALITY was part of the system of contrasts in the English Infl, and present-tense forms, now contrastively non-modal, were not used in future clauses.

We turn in Section 10.3.5 to the expression of the future in Middle English, where there is evidence for the introduction of MODALITY in the inflectional system, but also for interference, in our data, from editorial choices in the Purvey translation.

### 10.3.5 The transitional stage: Middle English

Middle English should represent an intermediate stage between the complete lack of a feature MODALITY in Old English and its role as a fully contrastive feature in Early Modern English. We would therefore expect to find that a smaller proportion of future-referring clauses contain *will* or *shall* in the Purvey Gospels than in the King James Version.

In fact, while this is true for modal *will*, it is not true for *shall*, as can be seen in Table 10.4. Rather, *shall* occurs slightly more often in Purvey than in the King James: while in the King James Version, *shall* occurred in only 73.7 per cent of future-referring clauses, in Purvey it occurs in 81.5 per cent.

**Table 10.4** Future-referring clauses in Purvey

<i>shall/scealon</i>	911	81.5%
<i>should</i>	24	2.1%
<i>will/nyll</i>	4	0.4%
<i>would</i>	4	0.4%
<b>Total modal</b>	<b>943</b>	<b>84.3%</b>
Present indicative	48	4.3%
Present syncretic	16	1.4%
Present subjunctive	23	2.1%
<b>Total present</b>	<b>87</b>	<b>7.8%</b>
Other	88	7.9%

This difference could arise from a number of different sources. It could simply be that *shall* was fully established as a future modal by the Middle English period, while *will* lagged behind (perhaps retaining more of its original volitional flavour). The relative frequency of *shall* compared to *will* would then be explained by saying that it was the only true future modal attested at this period; by Early Modern English, the introduction of *will* to the system caused it to encroach on *shall*.

We will see in Section 10.3.6, however, that there is reason to think that at least some of *shall*'s dominance is, in fact, an artefact of editorial policy in translation, rather than an accurate representation of the state of English at this period. Factoring out the effect of this apparent editorial policy yields a somewhat different picture—we argue a more accurate picture—of the inflectional system of Middle English.

### 10.3.6 *Shall* as a matter of editorial policy

One of the drawbacks of the texts we gathered in our database is that they were translated, and not originally composed in English. This raises the possibility that

individual translators may have deliberately mapped particular forms in the source language to fixed targets in the translation, rather than using a range of possible future-referring forms. If this is the case, then we might expect to find the rate of *shall* (or any other inflectional choice) to be strongly influenced by the verb form used in the source text.

In fact, this is exactly what we find. The source for the Wycliffe/Purvey translations was the Latin Vulgate; as shown in Table 10.5, the Latin future indicative was rendered overwhelmingly with forms of *shall* (94.4 per cent). On the other hand, where the Vulgate has forms without future tense morphology, or forms that are ambiguous between the future perfect indicative and the perfect subjunctive, forms of *shall* remain very common in Purvey, but translations with the simple present are also commonly attested. Notice in particular that 35.3 per cent of the syncretic Vulgate forms are translated with present-tense forms.

**Table 10.5** Renditions of Latin future-referring forms in Purvey

	Vulgate fut. indic. <i>n</i> = 896		Vulgate fut. periphr. <i>n</i> = 34		Vulgate syncretic <i>n</i> = 51		Vulgate present <i>n</i> = 72		Vulgate past <i>n</i> = 32		Vulgate other <i>n</i> = 33	
<i>shall/should</i>	846	94.4%	17	50.0%	29	56.9%	21	29.2%	18	56.3%	4	12.1%
<i>will/would</i>	2	0.2%	1	2.9%	–	–	–	–	3	9.4%	2	6.1%
Present	15	1.7%	–	–	18	35.3%	49	68.1%	–	–	5	15.2%
Other	33	3.7%	16	47.1%	4	7.8%	2	2.8%	11	34.4%	22	66.7%
Total non- <i>shall</i>	50	5.6%	17	50.0%	22	43.1%	51	70.1%	14	43.7%	29	87.9%

We thus speculate that there was indeed an editorial policy active in the Purvey translation that the Latin future indicative should be translated with *shall*, obscuring what was in fact an optional use of modals to express future meanings. This may mean that the verses where the Vulgate expresses a future meaning with something other than the future indicative more accurately reveal the state of English at the time of Purvey: modals were gaining ground as a way of expressing the future, but were not yet obligatory, so that the present tense was still available as a way of expressing the future.

To support this conjecture, we must examine the range of future meanings expressed by present-tense forms in the Purvey Gospels, to show that these indeed include simple predictive futures of the type attested with the present tense in Old English. This is what we would expect to find if the use of modals remained optional at this stage—in our terms, if MODALITY were not yet a fully contrastive feature of Infl.

As it turns out, there are eighty-seven present-tense clauses with future time-reference in Purvey. Of these, thirty-eight were clearly predictive futurate clauses,

like the first conjunct in Luke 13:24, repeated in (13).<sup>13</sup> Such clauses require a modal (an overt expression of MODALITY) in Modern English.

(13) a. ASG:

...for *ðām ic secge ēow*,                    *manega sēcaþ*                    *ðæt hig*  
 ...because I say you.DAT.PL many seek.PRES.PL that they  
*in-gān*, and *hī ne magon*.  
 in-go and they not may.PRES.PL

b. Purvey:

...for Y seie to you, many *seken*                    to entre, and thei  
 ...for I say to you, many seek.PRES.PL to enter and they  
*schulen not mowe*.  
 shall.PRES.PL not may.INF

c. KJV: ... for many, I say unto you, **will seek** to enter in, and **shall not be able**.

Of the same eighty-seven present-tense clauses with future reference in Purvey, there were also twenty-six examples where the clause in question was a relative clause, a purpose clause, a temporal adjunct clause, or some other dependent construction. These were invariably rendered in the KJV with a modal, but in PDE would generally be in the present. (14) gives an example from Luke 9:26, here in the final *when* clause.

(14) a. ASG:

... *ðone*                    *mannes sunu*                    *forsyhþ*,  
 ... that.MASC.SG.ACC man.GEN.SG son.NOM.SG scorn.3SG.PRES  
*ðonne he cymþ*                    on his *mægen-þrymme*,  
 when he come.3SG.PRES on his might-splendour.DAT.SG  
 and *hys fæder*,                    and *hālegra engla*.  
 and his father.GEN.SG. and holy.GEN.PL angel.GEN.PL

b. Purvey:

... *mannus*                    *some schal schame hym*, *whanne he cometh* in  
 ... man.GEN.SG son shall shame him when he comes in  
 his maieste, and of the *fadris*,                    and of the *hooli aungels*.  
 his majesty and of the father.GEN.SG and of the holy angel.GEN.PL

c. KJV: ... of him shall the Son of man be ashamed, when he **shall come** in his own glory, and [in his] Father's, and of the holy angels.

<sup>13</sup> A reviewer asks whether the verbs *sēcaþ* in (13a) and *seken* in (13b) really have future reference. Our primary basis for assuming that they do is that they correspond to a future indicative in both the Greek and the Vulgate. While the Greek future indicative might in principle have a gnomic or generic reading, the Latin presumably does not; furthermore, the Modern English translations that we have consulted consistently use the modals *will* or *shall*.



The remaining twenty-three examples with the simple present tense in Purvey were fairly heterogeneous: some had a conditional flavour; others could be interpreted as futures or as generic, timeless statements. But what is interesting for our purposes is that there are thirty-eight instances in the Purvey/Wycliffe Gospels where a clearly predictive clause with future reference is expressed using the simple present tense, in a way that is not possible in PDE, and is not attested in the Early Modern English of the King James Version. Given this, it is fair to say that, in the stage of Middle English represented by Purvey, the present tense was still available as a means of expressing future meaning.

We might suppose that in original vernacular texts, where no translation conventions applied, we might find a higher proportion of futurate clauses expressed by the simple present. For the reasons discussed earlier, this is a difficult hypothesis to test, due to the challenge of distinguishing present from future reference in the absence of relevant temporal adverbials, so we leave this for future investigation.

### 10.3.7 Absence of translation effects in ASG and KJV

If the predominance of *shall* in the Purvey translation is an artefact of policies in translation, rather than reflecting the underlying grammar of Middle English, we should ask whether this raises doubts for our earlier conclusions regarding either Old English or Early Modern English.

In fact, neither the Anglo-Saxon Gospels nor the King James Version shows evidence of a categorical translation policy analogous to Purvey's use of *shall* to translate the Latin future indicative. In the Anglo-Saxon Gospels, we do see larger numbers of 'other' forms (such as *be to*) when the Vulgate has something other than future indicative or syncretic forms. For example, in the following verse (Luke 9:31), ASG follows the structure of the Latin more closely than the later translations do:

- (15) a. Vulgate:  
     ... quem                    **completurus**                    **erat** in Ierusalem  
     ... which.ACC.SG    complete.FUT.ACT.PTCP    was    in Jerusalem  
     '... which he **was to complete** in Jerusalem'
- b. ASG:  
     ... ðe    he    **to gefyllenne**    **wæs**    on Hierusalem  
     ... that    he    **to fulfill**            was    in Jerusalem  
     '... that he **was to fulfill** in Jerusalem'
- c. Purvey:  
     ... which    he    **schulde**    **fulfille**    in Jerusalem  
     ... which    he    should    fulfill    in Jerusalem
- d. KJV: ... which he **should accomplish** at Jerusalem

Despite this tendency, for all Latin future-referring forms, the present tense is a robustly attested option in Anglo-Saxon Gospels. In Table 10.6, we do not see any single form in the Vulgate giving rise to a clear outlier in the Anglo-Saxon Gospels, as we did for the future indicative and *shall* in the Wycliffe/Purvey.

**Table 10.6** Future-referring forms in the Vulgate and their correspondents in the Anglo-Saxon Gospels

	Vulgate fut. indic. <i>n</i> = 896		Vulgate fut. periphr. <i>n</i> = 34		Vulgate syncretic <i>n</i> = 51		Vulgate present <i>n</i> = 72		Vulgate past <i>n</i> = 32		Vulgate other <i>n</i> = 33	
Modal	8	0.9%	10	29.4%	–	–	1	1.4%	3	9.4%	2	6.1%
Present	813	90.7%	8	23.5%	47	92.2%	59	81.9%	8	25.0%	13	39.4%
Other	75	8.4%	16	47.1%	4	7.8%	12	16.7%	21	65.6%	18	54.5%

In the King James Version, similarly, we do not find any apparent categorical effects of translation, as can be seen in Table 10.7. The difference from the Anglo-Saxon Gospels is that the King James Version overwhelmingly uses modals to translate all future-referring forms in the source text (here the Greek rather than the Latin Vulgate). While the proportions of different modals do vary somewhat across the different Greek sources, and *shall* is consistently the most common overall, no Greek form is so consistently mapped onto a single translation in the King James as the Latin future indicative is to *shall* in Purvey.

**Table 10.7** Translations of Greek potentially future-referring forms in the King James Version

	Greek fut. indic. <i>n</i> = 861		Greek aor. subj. <i>n</i> = 129		Greek present <i>n</i> = 59	
<i>may</i>	–	–	–	–	–	–
<i>shall</i>	661	76.8%	104	80.6%	34	57.6%
<i>should</i>	3	0.3%	12	9.3%	11	18.6%
<i>will/nill</i>	189	22.0%	12	9.3%	13	22.0%
<i>would</i>	2	0.2%	1	0.8%	1	1.7%
<b>Total modal</b>	<b>855</b>	<b>99.3%</b>	<b>129</b>	<b>100.0%</b>	<b>59</b>	<b>100.0%</b>
Present indicative	6	0.7%	–	–	–	–
Present syncretic	–	–	–	–	–	–
Present subjunctive	–	–	–	–	–	–
<b>Total present</b>	<b>6</b>	<b>0.7%</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>
Other	–	–	–	–	–	–

In sum, in neither the ASG nor the KJV do we see the kind of systematic correlation to the specific form of the source (Greek or Vulgate Latin) that we find in the Middle English Purvey translation.

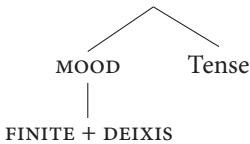
## 10.3.8 The grammar in transition

We conclude, the discussion in Section 10.3.7, that in Middle English modals were possible in clauses expressing future reference, but that they were not yet obligatory. This raises the question of how such transitional optionality can be formally represented in speakers' grammars, and exactly what is the path of change involved in the addition of a new contrastive feature to the grammar. While the theory provides several possible ways to represent optionality, the choice between them will be governed by whether or not they are compatible with a plausible scenario for the addition of the feature to the grammar.

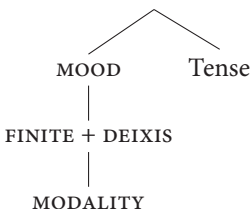
Within the theoretical framework we have adopted here, there are at least three possible ways that optionality can exist in a grammar. The first possibility is that the feature MODALITY might be an optional adjunct feature, in the sense of Wiltschko (2008b). Wiltschko proposes that adjunct features differ from head features in that their absence is not contrastive. If MODALITY were an optional feature in Middle English, then its presence, spelled out by a modal, could serve to disambiguate the sentence. For this proposal to be correct, we would need to understand where the optional feature came from in the first place, what it was a feature of, and why it then came to be reanalysed as a contrastive feature of T.

The second possibility is that in Middle English there were (at least) two competing grammars (in the sense of Kroch 1989a), one with MODALITY and the other without. In other words, speakers at this period would control two versions of Infl. A conservative version of Infl would lack MODALITY as a grammatical feature, while an innovative version would have the feature in a contrastive role. This approach amounts to saying, essentially, that the relevant aspects of the Old English and Early Modern English systems coexisted for some part of the Middle English period. This situation is depicted in (16) and (17). Notice here that the conservative Infl in (16) is identical in feature specification to the contrastively non-modal Infl in (17b). Such a situation could have caused some instability in the system, contributing to the loss of the conservative version.

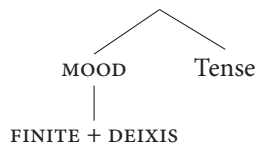
(16) Conservative



(17) a. Innovative modal



b. Innovative non-modal



The final possibility involves a single underlying grammar with competing surface morphological realizations. Here we would say that MODALITY was fully contrastive in Infl by Middle English, but that its morphological realization depended on the choice between conservative and innovative vocabulary items (which could be formally encoded by register features, as in Cowper and Hall 2003). The vocabulary item *shall* (with *will* lagging behind it) was available as the realization of an Infl head bearing the feature MODALITY, but it was markedly innovative, as opposed to the more conservative vocabulary item *shal*, which spelled out the lexical verb. In more conservative contexts, these newer vocabulary items were not used, and the next best fit to spell out an Infl including MODALITY was the present tense.

These three options relate to a broader question of how to represent variability in linguistic systems within formal theory. Because the Wycliffe and Purvey translations are the work of single individuals, we cannot attribute observed variation to differences in grammars across individuals, and because both modals and the simple present are expressions of the finite inflectional system of English, we cannot attribute this variation to two different syntactic means of expressing the same semantics (as in, for example, *must* versus *have to*).

### 10.3.9 A possible path of change

We posit, following Lightfoot (1979), that most of the premodals (*\*sculan* > *shall*, *magan* > *may*, *mōtan* > *must*, *agan* > *ought*, and *durran* > *dare*), in addition to carrying modal meaning, were distinguished from other verbs in Old English by the morphological peculiarity of being preterite-presents, and therefore lacking the usual *-ep* ending in the third-person singular. The Old English verb *willan* > *will*, while not a preterite-present verb, also happened to lack this ending. There were some non-modal preterite-present verbs as well, but all of these were lost before the end of the fifteenth century (Lightfoot 1979: 102). By the end of the Middle English period, then, there was a morphologically distinct set of verbs all of which had modal meaning. If Cowper and Hall (2014) are correct in their claim that a formal feature can arise when speakers establish a correlation between two properties, it is reasonable to suppose that speakers may have assigned a feature such as MODALITY to the preterite-present premodal verbs during the Middle English period, systematically distinguishing this class of verbs from other verbs in the language.

A second important factor was the scarcity of non-finite uses of the premodals. As Warner (1993: 144–8) observes, non-finite modals were already infrequent in Old English, and they became more so throughout the OE and ME periods. Meanwhile, finite forms of the premodals were increasingly used as a periphrastic alternative to the subjunctive mood (Cowper and Hall 2017: 75), as the morphological distinction between the subjunctive and the indicative was eroding. By Early Modern English, then, the modals were almost exclusively finite, so that for

some speakers the rarity of their non-finite forms was construed as a categorical gap (perhaps by the learning mechanism described by Gorman and Yang 2019). Since finite verbs moved out of the verb phrase at this stage, this meant that the modals virtually always surfaced in T, or even higher in questions and counterfactual conditions. From a Distributed Morphology perspective, the modals could thus be interpreted as consistently spelling out a finite T head.

We propose that, at this point, speakers were led to posit FINITE as an inherent feature of the premodals. This made it possible for modals to be merged directly in T, rather than moving to T after having merged as the head of a verb phrase lower in the structure. Following Roberts and Roussou (2003: 30), we assume that, given the choice between merging the premodals directly in T, on the one hand, and merging them in V but invariably moving them to T, on the other, the learner will choose the more economical option of merging them directly in T.

So far, MODALITY has not played a contrastive role in the system, but rather has simply been a feature of the class of premodals. But once the premodals become members of the category T, the stage is set for a new grammatical contrast. Since MODALITY characterizes all and only the premodals, and since the premodals merge in T, all clauses containing premodals have a feature in T that all other clauses lack. We hypothesize that this led to a change in the status of that feature. Originally a feature of a lexical class, expressing the correlation between modal meaning and a morphological peculiarity, MODALITY was reanalysed as a systematic, contrastive feature of T, whose meaning operates on the semantics of the feature DEIXIS, as described in Section 10.3.2 above. Once that happened, clauses without a modal in T were contrastively non-modal, and, in particular, present-tense clauses without modals could no longer express future meanings.

This scenario correctly predicts that there should have been an intermediate stage where modals were merged in T and expressed various kinds of modality, including temporal modality, but were not obligatory in clauses with future time reference. However, as more and more speakers acquired MODALITY as a contrastive feature of the T system, the modals *will* and *shall* became obligatory in such clauses. From the data we have, it seems that this happened sometime in the 1500s, after the Purvey/Wycliffe Bible was created but before the King James Version.

Given the connection that we have established between the addition of contrastive MODALITY to the English T system and the restrictions on future-referring uses of the present tense, another change around the same time warrants some attention. Fischer (1992) notes that prior to late Middle English, there was no historical or narrative use of the present. It seems plausible that the narrowing of the semantic range of the present from simply 'non-past' to 'contrastively non-modal non-past' might somehow make it possible for the present to refer to a narrative past time, but the actual connection remains to be explored. Interestingly, a preliminary search has turned up no languages that both have a historical use of the present and lack any overt morphosyntax for the future.

In Section 10.4 we turn to another change in the modal system of English: changes in the expression of futurity between the time of the King James Version and the present day.

#### 10.4 A new transitional stage? Present-Day English

We have already seen examples showing that the modals *will* and *shall* occurred in a wider set of contexts in the seventeenth century than they do today. The clearest cases of this are future-referring adjunct clauses headed by *when* and *if*: in Early Modern English modals were required in all such clauses, as in (18), whereas in PDE they are impossible.

- (18) a. For **when** they **shall** rise from the dead, they neither marry, nor are given in marriage; but are as the angels which are in heaven.  
(KJV, Mark 12:25)
- b. If ye **shall** ask any thing in my name, I will do [it]. (KJV, John 14:14)

The use of modals in such clauses declined during the eighteenth century, as noted by Visser (1963–73: §1519):

In the course of the eighteenth century the number of instances with *shall* perceptibly decreases; subsequently the use of *shall* + infinitive in conditional clauses practically passes into desuetude.

It thus seems that modals reached the peak of their distribution in Early Modern English, and have since declined. The question is whether this was a relatively minor change, affecting only adjunct clauses and resulting in a state of equilibrium for the feature MODALITY in the PDE inflectional system, or whether it is a single stage in a broader change taking place over a much longer time period, possibly continuing into the present day.

In fact, recent variationist work has demonstrated that true modals are in decline across different contemporary varieties of English. Tagliamonte and D'Arcy (2007), for example, show that in present-day Canadian English, modals like *must*, *will*, and *can* are losing ground to the so-called semi-modals, such as *have to*, *be going to*, and *be able to*, and Bybee et al. (1994), Krug (2000), Jankowski (2004), and Collins (2005) have reported similar developments in other contemporary varieties.<sup>14</sup>

<sup>14</sup> See also Biberauer and Roberts (2015b), who argue that the decline of the modals in contemporary English is an example of nanoparametric change, taking place on an item-by-item basis.

In terms of the organization of the English inflectional system, what we need to ask is whether these semi-modals are simply innovative realizations of the same syntactic feature MODALITY or whether that feature itself is in decline. The semi-modals are all periphrastic expressions that allow semantic modality to be expressed in the same clause as the full range of tense forms, as illustrated in (19)–(21).

- (19) a. The students are able to perform this calculation.  
 b. The students can perform this calculation.
- (20) a. The students have been able to perform this calculation for several years now.  
 b. \* The students have could perform this calculation for several years now.
- (21) a. We expect the students to be able to perform this calculation.  
 b. \* We expect the students to can perform this calculation.

Each of the true modals has a corresponding periphrastic form; for example, *must* = *have to*, *can* = *be able to*, *will/shall* = *be going to*, *may* = *be allowed to*, *should* = *be supposed to*, etc. Fischer (2003) suggests that such constructions arose to compensate for the grammaticalization of the true modals (i.e. the restriction of the true modals to finite forms, and, for us, the addition of the feature MODALITY to the English Infl system).

The semi-modals as a class are syntactically distinct from the true modals in that semi-modals do not merge in the Infl head, instead occurring lower in the clause. The majority of semi-modals take the form of BE + adjective/participle + non-finite IP (e.g. *be able to*, *be supposed to*, *be allowed to*, *be going to*).<sup>15</sup> We treat BE as a copular verb; like other uses of BE, it allows inversion in questions (e.g. *Is she able to swim?*; *Are they supposed to leave?*, etc.) without need for DO-support.<sup>16</sup> But the modal meaning is expressed by the lower adjective or participle, which is clearly below Infl. The behaviour of the semi-modal *have to* is interesting in this regard; while auxiliary *have* normally precedes VP-initial adverbs and clausal negation, and inverts in questions, many speakers do not apply these patterns to the *have of have to*, as illustrated in (22). (In general, the speakers who accept (22) seem to be ones who also allow such constructions when *have* is a main verb taking a nominal complement.)

<sup>15</sup> While *able* and *allowed* are fairly clearly adjectives, and *going* is fairly clearly a participle, the category of *supposed* is less clear—it differs in both pronunciation and interpretation from the deverbal adjective *supposed* (in the sense of ‘assumed’). We have also set aside habitual *used to*, which syntactically resembles the semi-modals but expresses aspectual rather than modal meaning.

<sup>16</sup> We assume, following Cowper (2010) and Bjorkman (2011), that both copular and auxiliary BE occur in order to realize stranded inflectional features, either in Infl or in a lower inflectional head.

- (22) a. % We have usually to ring the doorbell twice to get his attention.  
 b. % She hadn't to leave until Tuesday.  
 c. % Have they to write another paper this term?

For speakers who reject (22), not only does semi-modal *have* not merge in Infl, but it cannot even move to Infl in the course of the derivation. At the very least, therefore, we would have to say that if the PDE semi-modals reflect the syntactic presence of a feature MODALITY, the feature occupies a lower syntactic position than it does in sentences containing true modals. However, the oldest of the semi-modals, *have to* and *be going to*, date back to late Middle English or Early Modern English (Leech et al. 2009: 91) and thus predate not only the advent of MODALITY as a contrastive feature, but even the establishment of the premodals as a well-defined lexical class. This makes it very unlikely that the rise of the semi-modals is due to the addition of MODALITY to the English Infl.

Can we distinguish this possibility—that is, that MODALITY is simply coming to be morphologically realized by semi-modals rather than true modals—from the alternative possibility that the status of MODALITY in English is undergoing a broader change? If MODALITY is losing ground as a contrastive feature of Infl, then we would predict, on the basis of our claims about the change from Old English to Modern English, that the present tense would again be expanding its range of use. If, on the other hand, the feature is still contrastive, but now being spelled out by the semi-modals, then there is no reason to expect such an expansion.

In this context, we note an expansion in the range of the future-referring simple present that to our knowledge has not previously been reported.<sup>17</sup> As noted in Section 10.1, the simple present in twentieth-century English is usually described as being able to refer only to planned or scheduled future events; it is reported to be infelicitous with unplanned predictions for future events (Lakoff 1971; Vetter 1973; Huddleston and Pullum 2002).

For some speakers, however, we find future-referring presents in a broader range of contexts, exemplified in (23). As with futurate presents in the historical corpora, these are virtually impossible to search for in corpora of PDE. However, we have collected a few dozen naturally occurring examples from broadcast media and a handful from print media. These examples are ungrammatical for some (plausibly more conservative) speakers, but fully grammatical for others.<sup>18</sup>

<sup>17</sup> Partee (2015) gives an example that may be of the same kind, but assumes that it is a property of headlines.

<sup>18</sup> We have not conducted any formal study or survey, but two of the authors of this chapter reject the examples in (23), while the other three authors find them fully grammatical. The examples were collected by one of the authors for whom they stand out as ungrammatical.



- (23) New contexts for futurate present in PDE
- a. In the consequent of a future-oriented conditional:<sup>19</sup>  
If I don't tell Patty about Katie, the clients **lose** the case.  
(*Damages*, season 1, ep. 1)
  - b. In a matrix or embedded question referring to a future situation:
    - i. But he **gets** confirmed, right?  
(referring to a possible future nomination; *The West Wing*, season 7, ep. 19)
    - ii. If the press finds out next month or next year, then I don't know what **happens** to you or your presidency. (*The West Wing*, season 7, ep. 14)
  - c. In a clause modified by an adverb like *maybe* or *hopefully*:  
Maybe he's up doin' the polka five minutes from now.  
(*The West Wing*, season 6, ep. 9)
  - d. Embedded under a clause with a modal, a verb with modal meaning, or a negated verb:  
We're deadlocked at \$300 million. CBC's pushing for more after-school care. I don't think we **get** that out of committee.  
(*The West Wing*, season 7, ep. 2)
  - e. Clefts: That's why the other guy **wins**.  
(said months before the election; *The West Wing*, season 7, ep. 8)

These apparently novel uses of the futurate present do not cover as broad a range as futurate presents did in Old English. Examples appear to fit into five general categories: (a) the consequent of a future-oriented conditional, (b) matrix or embedded questions referring to a future situation, (c) clauses modified by adverbs like *maybe* or *hopefully*, (d) clauses embedded under a higher clause containing a modal, negation, or a verb with modal meaning, and (e) a small number of cases involving cleft-like constructions.

In general terms, it appears that this use of the simple present is licensed by certain higher operators, specifically question or modal operators. These operators can occupy heads, or can be adjoined to the relevant clause (as in the case of licensing adverbs *hopefully* or *maybe*). These generalizations based on attested examples are confirmed by judgements from speakers who accept this use of the simple present; for such speakers there is a contrast between sentences like (24a), with no licensing expression of modality, and (24b), with the adverb *hopefully*:

<sup>19</sup> We have happened upon one startlingly early example of this type, in a letter from J. S. McCuaig to Sir John A. Macdonald, dated 12 October 1883, quoted in Ward (1950: 78): 'Unless you again contest the constituency, we lose it.'

- (24) a. #It rains later this month.<sup>20</sup>  
 b. %Hopefully it rains later this month.

We suggest that this change can be viewed as a further development in the reduction of the range of use of the modals that began in the eighteenth century (Visser 1963–73). First, modals were lost from conditional and temporal adjunct clauses, and from the complements of verbs like *hope*, contexts where *will* and *shall* appear to have been required in Early Modern English.<sup>21</sup> Descriptively, we can say that the contexts in (23) represent a broadening of the set of elements that license a future-referring use of the simple present.

Focusing on modals as the realization of a feature MODALITY, we can say that the presence of certain operators above a given instance of Infl, whether in an adjoined position or as a higher c-commanding head, either make the overt realization of MODALITY optional or make the presence of that feature itself optional.

This might indicate that the status of MODALITY is once again changing—or is continuing to change—in the inflectional system of English. It might be that MODALITY is becoming (or reverting to) an optional modifier feature, losing its status as a contrastive feature. Alternatively, it could be that MODALITY is becoming a contrastive feature in, or licensed by, Comp, or of some other position in the left periphery above Infl, where it is associated with clause-level operators and adjuncts, and can be directly selected by certain higher verbs.<sup>22</sup> This would be consistent with the frequent observation that change in grammatically significant elements often involves their association with higher and higher syntactic positions over time (as in, for example, Roberts and Roussou 2003).

The course of this recent change in modals, then, is as follows. In Early Modern English, as represented by the King James Bible, modals such as *will* and *shall* appear to have been obligatory in all future-referring clauses, including temporal and conditional adjuncts. The feature MODALITY was at that point fully contrastive in Infl; clauses without overt modals were contrastively non-modal in meaning, restricting future interpretations of the simple present tense to currently held plans and schedules. During the eighteenth century, a change occurred so that future-referring adjunct clauses headed by elements like *if*, *when*, and *until* could

<sup>20</sup> Infelicitous because long-range weather is not subject to planning or scheduling, except in fictional contexts.

<sup>21</sup> For many people, *hope* can optionally take complement clauses with *will*, but there seems to be a subtle difference in meaning between sentences with and without the modal.

<sup>22</sup> As noted by an anonymous reviewer, something that might lead speakers to reanalyse MODALITY as a feature in the left periphery is the mandative subjunctive, found in embedded clauses below verbs like *demand* or *require* (e.g. *I demand that someone be held responsible*). Like other uses of the subjunctive, the mandative subjunctive is somewhat vestigial for many contemporary speakers, but for those who use it productively it could be attributed to a left-peripheral covert modal element selected by the relevant class of verbs; this modal would in turn select a bare form of the verb just as the modal auxiliaries do, the PDE mandative subjunctive being identical to the bare infinitive.

no longer contain modals expressing futurity. Now, as illustrated in the examples above, modals are becoming optional in a broader range of constructions, but still in the scope of certain operators arguably related to modality.<sup>23</sup>

It is unclear whether this change in the use of the simple present in English can be directly related to the rise of the semi-modals. The fact that we have not observed simple declarative present-tense clauses expressing predicted future events suggests that MODALITY is still contrastive in English, but its status is clearly changing. More work is required in order to determine exactly what is going on, and whether MODALITY is on its way to vanishing entirely, in which case we would expect the present tense to regain the semantic range it had in the tenth century.

## 10.5 Conclusions

In this chapter we have linked changes in the inflectional system of English—specifically the rise of a grammatically distinct class of modal auxiliaries—to the development of a contrastive feature MODALITY. We have argued that the absence of such a feature prior to the development of the modals predicts that the simple present should have occurred in contexts that later came to require future-referring modals such as *will* or *shall*.

This prediction is borne out: in Old English, predictive statements about the future were largely expressed using the simple present—a fact we explain by saying that at this stage there was no contrastive modal feature in the Infl system. In Middle English, a feature MODALITY arose first as a property of the premodals, and subsequently as a feature of Infl. By Early Modern English, MODALITY was fully contrastive within the Infl system, so that all future-referring clauses required a modal.

This illustrates that formal properties of a language's inflectional system, and in particular the range of contrastive dimensions of meaning it encodes, have implications for the set of meanings available to other inflectional forms. We have also suggested a mechanism by which new contrastive features can be added to the grammar.

Finally, we have discussed a further change that appears to be attested for some speakers of PDE: beyond a general retraction in the distribution of modals from its peak in Early Modern English (in temporal and conditional adjuncts), for these speakers modals are becoming optional below a wider range of operators. This suggests further changes in the distribution of the formal feature MODALITY,

<sup>23</sup> We take no position on whether question operators can be understood as modal or whether the licensing of this use of the simple present in questions instead involves something more.

possibly indicating its decline as a contrastive feature, or a shift in its syntactic position into the left-peripheral domain of the clause.

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