

THE MIDDLE ENGLISH CHAPTER OF THE ‘MODAL STORY’

Abstract

The development of the English modals has been variously interpreted either as a whole series of changes taking place simultaneously in the 16th century or as a result of gradual, related changes originating already in Old English and taking place mainly in the Middle and Early Modern English periods. This second view is also the one that will be maintained in this paper, and evidence in its support will be drawn from our analysis of the third section (M3) of the Middle English part of *The Helsinki Corpus of English Texts* (1350-1420). It will be shown that the evolution of the English verbal modal system has taken place in a progression of stages strictly related to one another, all of which play a relevant role in determining the system as it is now. Our analysis will mainly focus on the Middle English period, which constitutes a fundamental stage in the transitional process of auxiliatation (Kuteva 2001) of English modal verbs.

Keywords: Middle English, Early Modern English, modal, verb, development, Helsinki Corpus, gradual, related, changes

Resumen

El surgimiento de los verbos modales ingleses ha sido interpretado, bien como una serie de cambios ocurridos simultáneamente durante el siglo XVI, bien como el resultado de cambios graduales interrelacionados, cuyo origen está en el Inglés Antiguo, y desarrollados principalmente en Inglés Medio e Inglés Moderno Temprano. Este artículo se orienta en esta segunda línea, fundamentándose en el análisis de la sección tercera (M3) de la parte dedicada al Inglés Medio del *Helsinki Corpus of English Texts* (1350-1420). Se mostrará cómo la evolución del sistema de los verbos modales ingleses ha tenido lugar mediante una progresión de etapas estrictamente relacionadas entre sí, y todas ellas con un papel crucial en la construcción del sistema tal y como es hoy en día. El análisis se centra en el período del Inglés Medio, que constituye un estadio fundamental en el proceso de transición denominado “auxiliarización” (Kuteva 2001) de los verbos modales ingleses.

Palabras clave: Inglés Medio, Inglés Moderno Temprano, modal, verbo, desarrollo, Corpus Helsinki, gradual, relacionado, cambios.

The development of the English modals has been interpreted in more or less radical terms. In particular, it was David Lightfoot (1974, 1979) who considered the evolutions in the verbal modal system as a whole series of changes taking place simultaneously in the 16th century. A different interpretation is instead offered by those (e.g. Aitchison 1980, Plank 1984, Warner 1993, Fischer 2003) who see this evolution as a result of gradual, related changes originating already in Old English and taking place mainly in the Middle and Early Modern English periods. This second view is also the

one that will be maintained in this paper, and evidence in its support will be drawn from our analysis¹ of the third section (M3) of the Middle English part of *The Helsinki Corpus of English Texts* (1350-1420).² It will be shown that the evolution of the English verbal modal system has taken place in a progression of stages strictly related to one another, all of which play a relevant role in determining the system as it is now.

Our analysis will mainly focus on the Middle English period, which constitutes a fundamental stage in the transitional process of auxiliation (Kuteva 2001) of English modal verbs.

Our investigation, which will be limited to central modal verbs, will take into consideration four main aspects of this grammaticalisation (Hopper / Traugott 1993) process, concerning not only syntactic features, but also semantic and pragmatic ones:

1. loss of morphological and syntactic traits;
2. periphrastic subjunctive forms;
3. new markers for the tense system;
4. development of epistemic meanings.

Although dialectal variants played an important role in Middle English, our analysis will not take into consideration issues of a diatopic nature, not only for a question of space, but also because the major syntactic changes in this period do not generally find their origin in dialectal variation but are the result of developments common to all Middle English dialects (Fischer 1992: 208).

¹ The analysis presented here derives from a research project entitled Aspects of Variation in Linguistic Modality in Late Middle English and Early Modern English, funded by the Italian Ministry for University Research. Some of the results of the project are presented in Gotti & al. (2002) and Hart (2003).

² Detailed information about the *The Helsinki Corpus of English Texts* can be found in its manual (cf. Kytö 1996).

1. LOSS OF MORPHOLOGICAL AND SYNTACTIC TRAITS

Some of the morphological traits of pre-modal³ verbs (such as infinitival and participial forms) are unattested in the Old English texts that have come down to us. This might be due to the scarcity of the texts that have survived, because some of the forms that seem to be missing in this period are attested in Middle English:

(1) but I desire gretly that [...] schrewes weren despoyled of *mowynge* to don yvel (BOETHCH: 446.C2, Gotti & al. 2002: 83)

(2) yif so be that it be wrecchidnesse to wilne to doon yvel, thanne is it more wrecchidnesse *to mowe* don yvel (BOETHCH: 446.C2, Gotti & al. 2002: 97)

In the Middle English period pre-modal verbs largely lost their infinitival, present participle and past participle forms and evolved in their auxiliatation process through the following steps:

- they lost the ability to take direct objects;
- their past tense forms no longer signalled past time reference;
- they took a bare infinitive, while all other verbs started taking *to*-infinitives;
- they stopped occurring in combination.⁴

In this way, they started differentiating themselves into an independent class with their own morphological and syntactic features.

This evolution, however, has been much more gradual than Lightfoot has presented it. For example, past tense pre-modals could already be used to express present time reference in Old English, while modals with a direct

³ In their Old English usage these verbs are usually called 'pre-modals' because they lack many of the properties associated with present-day modals. The nature of these verbs has been greatly debated: some scholars (e.g. Lightfoot 1979) mainly consider them full verbs; others (e.g. Van Kemenade 1989, Traugott 1992, Denison, 1993, Warner 1993) have shown how pre-modals were already distinct from full verbs for some particular syntactic and semantic features, which somehow associated them at times with the class of auxiliaries.

⁴ This feature has remained in some dialects or varieties of English (e.g. Modern Scots).

object have been found as late as 1652 with CAN⁵ (Visser 1963-73: §551), 1685 with WOULD (Gotti & al. 2002: 303) and even 1862 with WILL (Visser 1963-73: §§557-8). Indeed, in Middle English many of these verbs still show non-modal usage. However, the evolution towards the auxiliary function is not uniform, as can be seen from Table 1 (based on M3 data). This shows that the process of grammaticalisation was completed earlier in the case of MAY, MIGHT, MUST, SHALL and SHOULD which present no main verb usage in the period taken into consideration (1350-1420). On the other hand, some of them – such as CAN, COULD, WILL and WOULD – still had a relevant main verbal function. Compared to all other modals, CAN and COULD appear to lag behind in the pace of grammaticalisation, since in M3 up to 27% of CAN-occurrences and 28% of COULD still feature main verb values.

CAN	27
COULD	28
MAY	0,14
MIGHT	0
MUST	0
SHALL	0
SHOULD	0,4
WILL	10
WOULD	12

Table 1. Occurrences of modals as main verbal forms in the corpus expressed in percentage (after Gotti & al. 2002: 329).

Double modal constructions were frequent in Middle English, where syntactic units like SHALL MAY, SHOULD MAY, SHALL WILL, MAY CAN and SHALL CAN were possible.⁶ Here are a few examples found in our corpus:

⁵ Throughout the text, capitals will be used to denote the lexemes (e.g. SHALL and WILL), while italics will be used for their graphic variants (such as *shall*, *shalt*, *shan't*, *will*, *wilt*, etc.).

⁶ For discussions and bibliographical references concerning the origin, history, and development of modal combinations, see Butters (1991), Nagle (1993, 1994, 1995, 1997), De la Cruz (1994, 1995), Battistella (1995) and Fennell / Butters (1996), *inter al.*

- (3) Bot now it is so blendid wiþ þe original synne þat it *may* not *kon* worche þis werk bot it it be illuminid by grace. (CLOUD: 116, Gotti & al. 2002: 54)
- (4) it may not be after þe cours of kynde ne of comoun grace, þat I *schuld mowe* kepe or elles make aseþ to any mo tymes þan to þoo þat ben for to come. (CLOUD: 21, Gotti & al. 2002: 241)

The most frequent occurrences that have been found in our analysis of the M3 corpus include the auxiliary SHALL, with 4 cases of SHALL + MAY and 2 of SHALL + CAN:

- (5) The whiche thinges yif that any wyght loketh wel in his thought the strengthe of that oon and of that oother, he *shal* lyghtly *mowen* seen that these two thinges ben dyvers. (BOETHCH: 451. C1, Gotti & al. 2002: 196)
- (6) Do þis werk euermore wiþ-outyn cesyng & wiþ-outyn discrecion, and þou *schalt* wel *kun* beginne & ceese in alle þin oþer werkes wiþ a grete discrecion. (CLOUD: 81, Gotti & al. 2002: 197)

The prevalent futural usage of the SHALL-forms in these modal combinations has led De la Cruz (1994) to hypothesize a possible medieval influence of French on the English language, based on calques of future forms of *pouvoir* and *vouloir*. Nagle, instead, explains the appearance of these combinations with the more widespread early use of SHALL as a marker indicating futurity and the less advanced progress of MAY and CAN in their loss of lexical-verb features:

Shall even in the late OE had begun to undergo auxiliarization and by ME was advanced in the process. *May* and *can* on the other hand, were late in becoming full auxiliaries, in the sixteenth and seventeenth centuries respectively. Therefore, *shall* was a natural candidate to precede the two others, which could be both auxiliaries and main verbs throughout ME. (Nagle 1993: 367)

The instances we have found seem to confirm Nagle's hypothesis.

As regards the non-use of the particle *to* before the infinitive form, already in Old English pre-modals were normally followed by the bare infinitive. In Middle English the particle *to* marking the infinitive started to be used more and more frequently, but never followed the modal verb to strengthen the close relation between a modal and its infinitive. Indeed, the few cases found in Middle English texts in which an infinitive preceded by *to* is dependent on a modal are not very clear. For example, in the following quotation the infinitive *to kon* (still used with its main verbal meaning of ‘to know’) dependent on *may* appears some distance from it:

- (7) For of alle oþer creatures and þeire werkes – he, and of þe werkes of God self – *may* a man þorou grace haue fulheed o knowing, and wel *to kon* þinke on hem. (CLOUD: 26, Gotti & al. 2002: 46)

Also in the following Early Modern English example, the use of a *to*-infinitive in collocation with CAN may be accounted for by the peculiar syntactic structure of the sentence itself, its main verb being at the very beginning, thus partly losing the direct dependency on the modal:

- (8) you saw him within four or five Days after at Tixhall?
LORD ASTON. *To name* particular Days, I *cannot*; but that I saw him several Days at Tixhall, I am sure. (OATES: IV.75.C2, Gotti & al. 2002: 53)

The analysis of our corpus has also shown cases in which modal verbs are followed by BE + *ing*-form, a structure which was still rare in Middle English (cf. Visser 1963-73: 2413, Strang 1970: 208, Denison 1993: 407). In the Middle English instances found, however, the *ing*-form seems to have prevalently an adjectival function. Indeed, in the first of the following M3 quotations the *ing*-form precedes SHALL and could serve as an appositional phrase to the noun it follows, while in the second, the *ing*-form might have an adjectival function:

- (9) and ech fleisch schal no more be slayn of the watris of the greet flood, neither the greet flood *distriynge* al erthe *schal be* more. (WYCOLD: IX.1G, Gotti & al. 2002: 198)

[neither the greet flood schal be distriynge al erthe more / neither the greet flood, distriynge al erthe (= destroying all the Earth / which destroys all the Earth), schal be more]

(10) Breþren, we *schulen be wytinge* þat our is now us to ryse from sleepe
(WSERM1: I. 475, Gotti & al. 2002: 198)

2. PERIPHRASTIC SUBJUNCTIVE FORMS

There is no doubt that the uses of the subjunctive are a part of modality in the broad sense.⁷ The closeness of the subjunctive and the modality of modal auxiliaries is shown by the fact that Old English subjunctive use is partly replaced by later use of modal verbs. Indeed, already in Old English synthetic subjunctive forms started becoming opaque, due to syncretism with indicative forms. This phenomenon, which became more evident in the Middle English period, was accompanied by the increase in the use of pre-modal verbs – such as *cunnan*, *sceal* and *magan* – to express this mood. The periphrastic construction, which was already in use in Old English, became more and more popular in Middle English: Mustanoja (1960: 453) estimates that by the end of the 15th century the ratio between the periphrastic and inflectional subjunctive was nine to one in non-dependent clauses. This rise was favoured by the fact that pre-modal verbs in the subjunctive were often used in Old English to strengthen the main verb, as in the following example:

(11) a Forþon us is nydþearf, þæt þa mynstru of þære stowe *moten* [SUBJ] beon
gecyrrede to oþre stowe

Therefore us is need that the monasteries from that place must be changed to
other place

[It is necessary therefore that the monasteries will be moved from that place to
another] (*GD 2 (C)5.112.24*, Fischer 2003: 22)

⁷ For Visser (1963-73: §834) the explicitly marked subjunctive (the 'modally-marked form') is associated with "a modality of non-fact (wish, imagination, contingency, doubt, diffidence, uncertainty, supposition, potentiality, non-reality, etc.)".

The frequent use of pre-modals in subjunctive forms proved to be an excellent substitute when the verbal morpheme indicating the subjunctive mood gradually weakened and in the end disappeared. The auxiliaries most frequently found in subjunctive clauses are MAY / MIGHT, MUST, SHOULD and WOULD. MAY replaced the earlier subjunctive in Middle English in the expression of exhortations, wishes and in clauses of purpose (Mustanoja 1960: 453). Subjunctive-like MAY is often found in noun clauses after verbs of direct petition like *pray* and *beseech* with first-person subjects:

- (12) we prayen [...] that the Statut [...] *mowe* stonde in strengthe (PET3: 197, Gotti & al. 2002: 122)

and also after other verbs that similarly refer to a desirable action or event in the future, such as *wish* and *hope* (notice the clearly subjunctive *be* in the coordinated clause):

- (13) þe Kyngus wille is, þat [...] þe ordre of Knyghthode, [...] be al brouht to nouht [...] and þat alle *may* take ensample by þe, her lord aftirward trewely forto serue (BRUT: 227, Gotti & al. 2002: 123)

Similarly, MAY-forms in clauses introduced by *but* ('unless') have an explicit subjunctive function:

- (14) it schal be payd, but he *mowe* fynde a verrey encheson (RET: 55, Gotti & al. 2002: 123)

The M3 corpus also contains cases of final clauses (some purpose, some result) with explicitly-subjunctive MAY:

- (15) Let þer be fair peynture [...] þat þe fayrnesse of o vertu [...] *mowe* make þe mor brit in schynyngge
[so that the fairness of one virtue [...] *make / may make* you more bright]
(AELR3: 33, Gotti & al. 2002: 124)

An apparent case of MAY used as a subjunctive substitute in a temporal clause has been found in the following quotation:

- (16) þei [...] gon be see & be londe .xj. monethes or .xij. or more sumtyme or þei *may* come to the yle of Cathay (MAND: 140, Gotti *et al.* 2002: 126)

We know that Old English *ðr* “prefers the subjunctive” (Mitchell / Robinson 1964/1986: §174) and this seems to be a Middle English preference for a periphrastic subjunctive in the same syntactic context. The justification for this marking of ‘unreality’ would be that the time in the subordinate clause does not yet exist from the point-of-view of the earlier time in the main clause.⁸ A confirmation of the use of a subjunctive-like MAY after *ere* comes from the following:

- (17) So hid þai sines foul and rogh, Als stinkand cors es vnder throgh, Or þai *may* mene men sins certaine Dat beres þe saule to endles paine. (NHOM: III.135, Gotti *et al.* 2002: 126)

The periphrastic subjunctive (or ‘subjunctive equivalent’ use) with MIGHT is found in similar contexts (except that the temporal collocation is past) to those for periphrastic subjunctive MAY: in subclauses after verbs of requesting, commanding, wishing, hoping, fearing and believing; also as a ‘hypothetical past’ in unreal conditional clauses, as well as in concessive, temporal and purpose clauses. The modal, however, may retain its ‘modal auxiliary meaning’ in all these environments. We find MIGHT in subclauses after past forms of verbs of petition, desire or emotion (and related nouns in a past context):

- (18) He [...] prayed with-alle Ðat a drope of calde water *mught* falle Til his tung (PRICK: 84, Gotti *et al.* 2002: 154)

In the M3 corpus also MUST-variants have been found to be part of periphrastic present subjunctives clearly expressing desire or wish:

⁸ Cf. Shakespeare, *Romeo & Juliet* 1.2.iii.10-11: “Let two more summers wither in their pride / Ere we *may* think her ripe to be a bride”. Fischer (1992: 356) says that a subjunctive in a Middle English temporal clause can indicate uncertainty, a non-fact or a prospective event.

- (19) With wild thonder-dynt and firy leveve / *moot* thy welke nekke be
tobroke! (CTBATH 108.C2, Gotti & al. 2002: 168)

M3 noun clauses containing SHOULD frequently convey reported speech acts concerning future actions or states (such as promises, requests, or predictions). In these cases SHOULD often has a bleached, generically subjunctive meaning. However, the modal can often be interpreted as retaining some of its semantic value in relation to harmonic elements in the context:⁹

- (20) William bisshop of Hely demede þat monkes *schulde* be putte away from
Coventre (TREVISA: VIII.93, Gotti & al. 2002: 240)

We also find SHOULD in subordinate clauses introduced by *lest* (possibly reinforced by such harmonic items as *peradventure*, *for fear*, *dread*), expressing feared outcomes to be guarded against by the action in the superordinate clause:

- (21) And þis I do for feerde lest þou *schuldest* conseyue bodily þat þat is mente
goostly. (CLOUD: 121, Gotti & al. 2002: 261)

The use of SHOULD in concessive clauses normally signals the remoteness of the hypothesis – again, this kind of usage could be described as periphrastic subjunctive:

- (22) þogh we *suld* never helle se, Ne for syn *suld* never punyst be, In purgatory
ne in helle, Ne in þis werld whar we duelle, Yhit suld we luf God [...] Right
swa þe face of God alle-myghty, Sal be shewed in heven appertely, Tille alle
þe men þat þider sal wende, þogh som *suld* duelle at þe ferrest ende. (PRICK:
248, Gotti & al. 2002: 261)

3. NEW MARKERS FOR THE TENSE SYSTEM

⁹ On this point Coates argues: “Where SHOULD functions as a pure quasi-subjunctive, it is semantically empty. But in many contexts, where the preceding adjective or verb is not incompatible with the sense of weak obligation expressed by Root SHOULD, we have merger [...]. That is, it is not clear which of the two uses the speaker / writer intended, as both are possible [...] [and] the two meanings are not mutually exclusive” (1983: 68).

3.1. NEW MARKERS FOR THE FUTURE TENSE

One of the main functions of SHALL and WILL in Present-day English is their use to indicate futurity. This usage started in the Old English period, although at that time the prevalent form for the expression of future actions was the present tense.

However, also in that period SHALL and, less frequently, WILL were used to indicate futurity. These dynamic¹⁰ values were a development of the deontic ones that characterised their original full verbal meaning. Indeed, from the semantic point of view, Old English **sculan* first evolved from the narrow scope of pecuniary obligation or indebtedness to wider moral obligation and command laid down by an external superior authority, including the interventions of nature, gods and fate. From this it was only a small step to reach the fully-fledged meaning of futurity, since commands necessarily have a future time reference. When it simply indicated futurity, *shall* frequently occurred either with the infinitive form of the following verb or with some other words in the sentence like *weorþan*, clarifying the futurity of the event. Consequently, the idea of futurity was established as an integral part of the semantic value of this auxiliary, although the verb also maintained its meaning of obligation and of the speaker's certainty about the necessity or the actualization of the event. Similar meanings, but less defined, were expressed by *willan*,¹¹ which mainly conveyed the deontic value of wish or intention,¹² corresponding to the current verbs 'to want', 'to wish', as in the following quotation:

¹⁰ The distinction into deontic, epistemic and dynamic is mainly derived from Palmer (1986 / 2001).

¹¹ In OE there were three different lexical verbs expressing 'will' or 'desire': *wilnian*, *willian*, and *willan*; the first two were regular weak verbs and are represented by the modern *to will*; the verb *willan* is the origin of the Modern English modal auxiliary. Although in Old English the three verbs could not be confused due to their different endings, their forms coalesced in the following centuries, on account of the loss of inflections which occurred in Late Old English and Middle English.

¹² Mitchell (1985) also points out a second general use of *willan*, which the OED classes as "natural disposition to do something, and hence habitual action."

(23) he æt sumum cirre *wolde* fandian hu...

[he at one time wanted to discover how...] (Traugott 1972: 69)

In the rare non-deontic cases, *willan* was mainly employed to express the predictability value that we still find in ‘Oil will float on water’ and which is identified by Jespersen (1949) in terms of ‘power’, as testified to by the following example:

(24) elpendes hyd *wile* drincan wætan.

[elephant’s hide will drink wet = elephant’s hide will absorb water] (Traugott 1972: 69).

Such cases occurred at first only when *willan* was employed with inanimate subjects, consequently with no hint at volition. Later, used with animate subjects, it is hard to determine “how far *willan* had gone along the road to simple futurity” (Mitchell 1985: 1/115), yet a number of occurrences testify to the strong undertones of dynamic futurity carried by Old English *willan* in a variety of contexts:

(25) wen is, þæt hi us lifigende lungre *wyllen* sniome forsweolgan

[expectation is that they us living quickly intend at-once swallow-up = it is likely that they will swallow us up at once] (Denison 1993: 299)

Therefore, SHALL is more frequently found in commands, instructions and prophecies where a sense of obligation is present, while WILL occurs more commonly with first person pronoun subjects in contexts more closely connected with desire or willingness on the part of the speaker or writer such as promises, resolutions or wishes. At first this use of SHALL and WILL represented a sort of ‘double marking’ of futurity, in the sense that the expression of obligation and volition pragmatically implied the prediction of a future action. The original weak value of futurity gradually became stronger and stronger, also favoured by the absence of this tense marker in English, a gap which could lead to ambiguity and misinterpretation. The use of the present tense to express a future action continued in the Middle English

period but became less and less frequent in comparison to the great increase in the use of SHALL and (less frequently) WILL as a marker of this tense. SHALL was less and less commonly used to express deontic necessity; this loss was compensated for by an increase in the use of MUST to express the same pragmatic function.

The increasing use of these verbs as markers of the future tense may have been favoured by the overlapping of the pragmatic functions expressed by them. As can be seen in the quotations below, they show cases of hypothetical phrases of the 'If you will' type; in such phrases, the overlapping of dynamic prediction and deontic volition present in these speech acts may have favoured the use of this modal auxiliary for the expression of prediction.

(26) *hif þu wylt, as þe book seiþ, adden goldene hemmys, certes, þenne þu hast a garnement wel iweue adoun to þi foot, in whiche þyn husbounde Crist wil haue gret lykyngge to fynde þe icloþed in.* (AELR3: 34, Gotti & al. 2002: 297)

(27) *And hf þou wylte besily trauayle as I bid þee, I triste in his mercy þat þou schalt come þer-to.* (CLOUD: 17, Gotti & al. 2002: 297)

This overlapping of pragmatic functions is also visible in a few instances of SHALL, in which the predictive speech act takes on some deontic shades of meaning. The following quotation, for example, apart from predicting what the reader will find in the fifth part, may also prompt the interlocutor to refer to that section:

(28) *In whiche fifthe partie shalt thou fynden tables of equaciouns of houses after the latitude of Oxenforde; and tables of dignitees of planetes, and other notefull thinges,* (ASTR 663: C2, Gotti & al. 2002: 227)

The following quotation, instead, does not only convey a predictive value but also an epistemic meaning, as it involves a statement of the speaker's attitude towards the truth of the proposition; indeed, the *schal be* mentioned could be paraphrased by the expression *can/will be considered*:

(29) þerfore .4. þyngus þou schalt loke in an hors. & þat þei faile noZt. ffurste þe schap of an hors þat þou schalt wite þat he be of good heythe to suche trauaile as þou nedest & þat he be þicke & wel I-growe to his heythe & strongliche I-made. longe sydes & fleyschful. & grete boddockes. & rounde. & brod brest bi-fore. & al þe bodi knette with wreþes of brawn. drie bon & hole þat schal his bodi bere & þat *shal* be a good hors. (HORSES: 85, Gotti & al. 2002: 227)

In Middle English, SHALL remained definitely more frequent than WILL, especially in predictive contexts. Wycliffe, in his translation of the *Vulgate*, used SHALL regularly to translate the Latin future tense, while WILL was employed to gloss the Latin verb *velle*. In Late Middle English the idea of futurity inherent in SHALL strongly increased at the expense of the sense of obligation which was steadily weakened, up to Shakespeare's time, when the two auxiliary verbs had almost reached the present pattern. By the end of the 15th century, the idea of futurity latent in the notion of volition became predominant in the use of WILL, with the result that this too came to be used as an auxiliary expressing futurity. From a quantitative point of view, our data, based on the comparison between the SHALL- and WILL-forms in the M3 part of the Helsinki Corpus, confirms the higher frequency of the former, not only in absolute numbers (729 vs 128, cf. Table 2) but also in normalised figures, i.e. in the relative numbers of such forms compared to the total number of words of the texts analysed (40 vs 7 per 10,000 words).

<i>TEXT TYPE</i>	<i>SHALL</i>	<i>WILL</i>
DOCUMENTS	12 [2]	4 [1]
HANDBOOKS	36 [2]	19 [3]
SCIENCE	1	-
PHILOSOPHY	18 [1]	9 [3]
HOMILIES	36 [3]	14 [2]
SERMONS	38 [3]	2
RULES	25 [2]	7 [1]
RELIGIOUS TREATISES	321 [8]	54 [5]
HISTORY	57 [2]	3
TRAVELOGUES	10 [1]	3 [1]

FICTION	52 [2]	10 [2]
LETTERS	13	1
BIBLE	110 [6]	2
<i>All texts</i>	<i>729 [31]</i>	<i>128 [18]</i>

Table 2 - Normalised occurrences of SHALL- and WILL- forms expressing prediction according to text type (figures in square brackets indicate indeterminate or ambiguous cases).

As can be seen from Table 2, prediction (or 'pure future', as this category is often referred to in the literature) occurs in almost all the text types included in the corpus. For the expression of this pragmatic function SHALL is much more frequently used than WILL (the ratio is 5 to 1). However, this ratio is not uniform. In particular, in biblical texts the prevalent use of SHALL depends on the translator's choice to use this modal auxiliary for the rendering of future verbal forms. As regards a possible correlation between medium and choice of modal verb, the data do not seem to confirm it. Indeed, comparing the data of Table 2, we can see that SHALL-forms occur below average not only in the main speech-based text types (i.e. homilies and sermons), but also in several non-speech-based ones, such as scientific texts, philosophical works, travelogues and correspondence. As regards WILL-forms, their behaviour in speech-based text types is extremely inconsistent, ranging from a very high frequency in homilies to a very rare presence in sermons. SHALL is also the auxiliary typically expressing the prophetic function; indeed of the 81 cases of prophecy found in the corpus 80 include a SHALL-form, versus a single case of WILL.

In the corpus taken into consideration there are various cases of alternation between SHALL and WILL in the same context; the analysis of these texts confirms the previous remarks, besides leading to further interpretations of their different uses. For example, in the following quotation, SHALL is used in the main clause, thus pointing to a preference of WILL for secondary clauses; indeed, in the same sentence there are two occurrences of WILL: the first in a qualifying relative clause (*who-so wil loke Denis bookes*), the second in

the noun clause serving as the object of the main clause (*þat his wordes wilen cleerly aferme*).

- (30) And trewly, who-so *wil* loke Denis bookes, he *shal* fynde þat his wordes *wilen* cleerly aferme al þat I haue seyde (CLOUD: 125, Gotti & al. 2002: 297)

The same explanation may apply to the following case, in which WILL occurs in the qualifying clause and SHALL in the main clause:

- (31) whoso *wole* have sapience *shal* no man dispreyse (CTMEL 220: C2, Gotti & al. 2002: 228)

The following quotation, instead, confirms the preference for the use of WILL to express volition and of SHALL for the conveyance of the pragmatic function of prediction:

- (32) And of this matere seith Moyses by the devel in this manere: “The feend seith, ‘I *wole* chace and pursue the man by wikked suggestioun, and I *wole* hente hym by moevynge or stiryng of synne. And I *wol* departe my prise or my praye by deliberacioun, and my lust *shall* been acomplised in delit. [...]” (CTPARS 298: C1, Gotti & al. 2002: 227)

In some cases, however, the reason for the alternation is less clearly deducible; for instance, in the following quotation the use of different modal auxiliaries in two co-ordinated main clauses may be attributed to stylistic reasons,¹³ i.e. in the willingness to avoid lexical repetition:

- (33) Whoso that dooth to thee oother good or harm, haste thee nat to quiten it, for in this wise thy freend *wole* abyde and thyn enemy *shal* the lenger lyve in drede. (CTMEL 220: C1, Gotti & al. 2002: 227)

3.2. NEW MARKERS FOR THE CONDITIONAL TENSE

¹³ Similar variations depending on stylistic reasons have been found also by other researchers; cf. for example, Ono (2002), who points out several examples of alternation in the use of SHALL and WILL in different manuscripts of Chaucer’s works.

Already in Old English the past forms of pre-modals were used in non-past contexts with hypothetical and tentative meanings (Molencki 1999: 135-136). This usage was particularly frequent with SHOULD and WOULD, commonly used to express remote possibility or predictive uses in narrative contexts taking place in the past, as can be seen in the following quotations:

(34) Hu *wolde* þe nu licien gif...

How would to-thee now please if ...

[How would it please you if ...] (BO 41.142.2, Traugott 1992: 197)

(35) Ða Darius geseah þæt he oferwunnen beon *wolde*, ...,

When Darius saw that he overcome be would, ...

[When Darius saw that he would be defeated, ...] (OR 3 9.128.5, Traugott 1992: 196)

The latter example is indicative of how the predictive function still combines with a stronger meaning of modal necessity ('would be overcome'). SHOULD and WOULD continued to be used in the Middle English period to report a prediction in a hypothetical/tentative way and to express present counterfactuals. From a semantic point of view, a distinction ought to be made between reported predictions and hypotheses; both are expressed by SHOULD/WOULD-forms and both convey future time reference, but the former generally occur in the context of narratives set in the past, as shown in the following quotations:

(36) And herfore repreuede Crist yprocrisye of ordres, for he wiste wel þat þey *schulden* after do more harm in þe world. (WSERM: I.314, Gotti & al. 2002: 259)

(37) me trowed þat þe kyng *wolde* nevere come ahen hom. (TREVISA: VIII.89, Gotti & al. 2002: 321)

In the case of hypotheses, the possibility of the predication ever becoming factual depends on an action or factor expressed by means of a conditional clause. The following quotations exemplify two M3 cases:

(38) And þerfore and I miht gete a wakyng and a besi beholdyng to þis goostly werk wiþ-inne in my soule, I *wolde* þan haue a rechelesnes in [...] alle myn outward doynge. (CLOUD: 81, Gotti *et al.* 2002: 321)

(39) If any childe of hir were þine I *woulde* holde hit as for mine. (CURSOR MUNDI 2601, Molencki 2000: 316)

Several M3 occurrences express a predictable result or refer to the purpose of an action; in these cases an additional deontic meaning of volition may also be detected, introduced by superordinate nouns like *entent*:

(40) For he kyde he & hys felawe wolde kepe the dores that day, to that entent that ther *sholde* non haue come jn but only that wolde haue chose John Norhampton to be mair; (USK: 27, Gotti *et al.* 2002: 260)

The hypothetical result may have been presented as an alternative to a different scenario, in which case the modal was introduced by *else*:

(41) “Thanne ben thei none membres,” quod sche, “for elles it *schulde* seme that blisfulnesse were conjoynd al of o membre allone; [...]” (BOETHICH: 433.C2, Gotti *et al.* 2002: 261)

In the expression of past counterfactuality the Old English preterite subjunctive was commonly replaced by the pluperfect or by a modal periphrasis consisting of SHOULD or WOULD followed by a perfect infinitive. In counterfactual constructions the replacement of the preterite subjunctive by a periphrastic construction containing a (pre)modal had started taking place in Old English dialects, particularly in the North of England, where the subjunctive/indicative contrast was first lost (Molencki 2000: 316-7). In Middle English it became more and more frequent to find cases in which the pluperfect in the apodosis was replaced by the combination of a bleached modal (most commonly WOULD, but sometimes SHOULD) and the perfect infinitive for the expression of the non-realization of an action (equivalent to Latin *irrealis* forms), as shown in the following examples:

(42) nad it be for drede of our lord the kyng, I wot wel eueri man *sholde* haue be in others top (USK: 28, Gotti *et al.* 2002: 260)

- (43) &, truly, had nocht the aldermen kome to trete, [...] they *wolde* haue go to a Newe eleccion, & in that hete haue slayn hym that *wolde* haue letted it, yf they had myght. (USK: 28-29, Gotti & al. 2002: 309)

Moreover, SHOULD and WOULD did not only occur in the protasis, but also in the apodosis:

- (44) As hif a lond *wolde* bere good corn wiþowte tylyng an donghyng þerof, it were but ydel to traueyle þefore, whonne it encessuþ not þe fruyt. (Wycliffe *Sermons* P I.588 a.1425, Molencki 2000: 321)

There is a very strong tendency to preserve parallelism between the verbal forms of the apodosis and protasis. Indeed, when the SHOULD/WOULD-periphrasis occurs in the apodosis, it is often followed by the use of SHOULD/WOULD in the protasis:

- (45) & if þer *schold* be don mynyscoun of þe cardiaca, þere *scholde* be mad mor febelynge (PHLEB: 45, Gotti & al. 2002: 260)
- (46) & [=if] he *wolde* not a followed me, I *wolde* haue retourned ageyn (Earl Rivers *The Cordyal* 79.12 c1479, Molencki 2000: 321)

4. DEVELOPMENT OF EPISTEMIC MEANINGS

Right from the Old English period, proto-modals and pre-modals have been the most frequent conveyors of the concepts of permission, obligation, wish, will, and mental capability, which can be subsumed under the general labels of deontic and dynamic modality. In contrast, it is only in Middle English that the concepts of 'probability', 'possibility' and 'certainty' – currently subsumed under the term 'epistemic modality' – are fully conveyed by *may/might* and *must* and it is not until Early Modern English that such values are acquired by *can/could*, *will/would* and *should*. Epistemic values have been shown to have evolved from deontic or dynamic ones, through a process of subjectification by means of which some modal verbs have gradually moved from the propositional domain to the expressive one (cf. Traugott 1989, Sweetser 1990, Bybee / Pagliuca / Perkins 1994). Indeed, the modal verbs that

nowadays express epistemic meanings seem to have originated with a deontic or dynamic function. Very few of the pre-modals had an epistemic function in Old English. However, some examples of this usage have been pointed out:¹⁴

(47) & to þam Pentecosten wæs gesewen [...] blod weallan of eorþan. swa swa mænige sæden þe hit

and at that Pentecost was seen [...] blood to-well-up from earth. as as many said PT it

geseon sceoldan

see should

[and at the Pentecost ... blood was seen welling up from the ground, as many said who supposedly saw it]

(*Chron E* (Plummer) 1100.4, Traugott 1992: 195)

(48) Eastewerd hit [se mor] *mæg* bion syxtig mila brad oþþe hwene brædre

Eastwards it [the moor] can be sixty of-miles broad or somewhat broader

[Toward the east it may be sixty miles wide or a little wider] (*Or* 1 1.15.26, Fischer 2003: 23)

The epistemic use of MAY particularly develops in Middle English, although it is still less common than the use to indicate dynamic possibility. As regards the meaning of ability, it was current until the 16th century; then the use of MAY to indicate dynamic possibility became prevalent, and the gap was filled by the use of CAN to indicate ability. The closeness between MAY expressing dynamic ability and the emerging similar function of CAN is shown by the occurrence of the two verbs in the formulaic phrase *may or can* often found in formal contexts lacking in any distinctive meaning between its elements:

(49) in as meke wyse and lowely maner as any symple officers and pouere lieges best *may or can* ymagine and diuise (LLET: 72, Gotti & al. 2002: 98)

¹⁴ For more examples, cf. Traugott (1989: 42) and Denison (1993: 298-302).

Here, in the context of 'binomial phrases' (*meeke wyse and lowely maner, officers and lieges, imagine and devise*), the paired modal verbs form part of a politeness strategy via prolixity. The same features can be used to suggest a need to make careful legal distinctions:

- (50) Be it further enacted That [...] it shall and may be lawfull to and for the Gaugers [...] to turne any Cock or Cocks to try and examine whether such Pipe or other Conveyance *may or can* convey any Wash (STAT7: VIII.457, Gotti & al. 2002: 99)

The semantic shift of MAY from objective to subjective possibility meanings is undoubtedly one of the most interesting episodes in the modal story. In our analysis we have found statistic confirmation of this evolution, with a decline of dynamic uses from 80% in M3 to 45% in E3, associated with the rise of other uses: epistemic, from 3% to 17%; deontic, from 3% to 13%; and periphrastic subjunctive uses from 8% to 17%. This semantic evolution is particularly evident in all those cases in which MAY combines with inanimate subjects and stative verbs to express epistemic necessity, as shown in the following examples:

- (51) Ðat *may* be ment on þis manere (NHOM: III.137, Gotti & al. 2002: 91)
- (52) Thow seyst we wyves wol oure vices hide / Til we be fast, and thanne we wol hem shewe / Wel *may* that be a proverbe of a shrewe! (CTBATH: 108.C2, Gotti & al. 2002: 102)
- [That *has to* be the proverb of a wicked man!]

As dynamic possibility MAY evolved into epistemic possibility MAY, many examples are 'mergers' (Coates 1983), ambiguous to both interlocutor and linguistic observer (indeed, it is this ambiguity that allowed the evolution). For Nuyts (2001: 181-2) this would be because the epistemic meaning began as an invited inference from a dynamic meaning. Visser (1963-73: 1756) sees the matter more in terms of strict observer 'ambiguity' (ideally distinguishable, though often not so) when he says: "Since this shift in meaning [from objective to subjective possibility] is not formally expressed, the correct

interpretation of quite a number [i.e. a substantial number] of the later quotations is problematic, and the placing of them in this section [1654, objective possibility] instead of in section 1663 [subjective possibility] is purely arbitrary". In our analysis too, where the meaning seemed 'merged' or so ambiguous as to make a clear assignment 'purely arbitrary', we have preferred to assign the example to a small mixed dynamic/epistemic category.¹⁵ Here are a couple of typical examples:

(53) whanne scripture speketh oonly bi counceil, men *moun* be sauid, thouth
thei do not the counceil (WYCPROL: I.56, Gotti & al. 2002: 114)

[it is *possible for* men to be saved though they do not follow the advice / it is
possible that men will be saved though they do not follow the advice]

(54) A sharp wit *may* find something in the wisest man whereby to expose him
to the contempt of injudicious people (TILLOTS: II.ii 428, Gotti & al.
2002: 114)

[it is *possible for* a sharp wit to find something / it is *possible that* a sharp wit will
find something]

Verbs like *happen* (*befall*, *fall*, *chance*) focus attention on the uncertain reality of events. Though such 'eventualities' can be presented as objectively as possible, they are inevitably open to interpretation as having the possibility of happening according to the speaker. The evolution can be seen in the way *MAY* + *hap* and *MAY* + *be* come to have an adverbial meaning of 'perhaps' (with the first OED quotation for the former dated at 1300); even the word (*h*)*appen* itself is used adverbially in modern Northern dialects to mean 'perhaps'. We should not be surprised, therefore, to find these verbs associated with epistemic *MAY*, as in the following example:

(55) þa er veniel synnes þat *may* falle, Bathe grete and smale (PRICK: 87, Gotti
& al. 2002: 108)

¹⁵ Equivalent to Kytö's 'indeterminate' possibility category (1987: 150). Ambiguity may well be normal in this area of modality: Nuyts (2001: 189) finds over 70% of his Dutch and German epistemic examples of *kunnen* and *können* are ambiguously dynamic / epistemic.

It is possible that the evolution of epistemic MAY was aided by accompanying adverbs that originally meant the top point on a scale or a high point on it (amplifiers) but then lost their ‘impact’ over time. One of the most common adverbs associated with this modal in M3 is *well* (in 19 examples, 5 of them with epistemic MAY), which functions originally as an amplifier but then is “used to denote the possibility or the likelihood of an occurrence or fact” (OED, WELL 9b, with citations from c1400). Here are some examples with epistemic MAY:

(56) it [concupiscence] *may* wel wexe fieble and faille by vertu of baptesme and by the grace of God thurgh penitence, but fully ne shal it nevere quenche (CTPARS: 297.C2, Gotti & al. 2002: 112)

(57) But lat us graunten, I pose, that som man *may* wel demen or knowen the good folk and the badde (BOETHCH: 452.C2, Gotti & al. 2002: 112)

Other M3 adverbials that accompany and reinforce an epistemic modal are: *in maner* (‘to some extent’), *by som cause* (‘for some reason’), *lihtli* (‘probably’), *perauenture* (‘perhaps’).

MIGHT seems to have had a longer association with epistemic meanings than MAY: its use with an (originally) implied conditional clause, with various meanings (including counterfactual dynamic and counterfactual epistemic), dates from the Old English period, before the year 1000 (Visser 1963–73 §1672, 1673; OED: MAY 6b, 6c). In contrast, the earliest occurrences of epistemic MAY go back no further than 1200 (1205 for both Visser and the OED). In addition, final clauses in Old English can refer to actual result or an eventuality (which will tend to be subjectively-viewed) and MIGHT lends itself to use as a metaphorically remote reference to indicate the latter. In our corpus, epistemic MIGHT is slightly more frequent than epistemic MAY: 6% of cases in M3, compared with 3% for MAY; 25% in E3, against 17% for MAY. Epistemic uses may have spread especially where MIGHT has a non-narrative–past meaning, since, in most cases, any original objective possibility can easily be reinterpreted as subjective if the possibility is imaginary (the step

from an imaginary *objective* possibility to an imaginary *subjective* possibility is a short one, since the foregrounding of imagination suggests a subjective view). The naturalness of an epistemic interpretation of fugitive eventualities has already been noted above for MAY. In the M3 sub-corpus, also epistemic MIGHT is followed by a verb like *happen*, always in a non-past context where the hypothetical meaning further encourages a subjective interpretation:

- (58) grete meschiefs that *mighten* by swiche wrongful cleymes: falle and turne
to grete preiudice to the kyng (PET3: 24, Gotti & al. 2002: 146)
- (59) But Crist denyeth þis to hem for harm þat *myhte* come (WSERM: I.375,
Gotti & al. 2002: 146)
- (60) we wile þat [...] þe maystres to non of hem, as it *mihste* falle in cas for
mede or be senguler profit, falle in affinite (RET: 57, Gotti & al. 2002: 146)

Perhaps MIGHT came with a built-in epistemic appropriateness in non-past contexts, so did not require the support of an adverbial as much as MAY did. In the following example, the epistemic adverb *possibly* in the first part of the sentence apparently does not need to be repeated in the parallel second part with MIGHT:

- (61) It would but give us a fear of him, and possibly compel us to treat him so
as I should be very loth to behold: that is, it *might* occasion his confinement
(BEHN: 193, Gotti & al. 2002: 148)

In the corpus we have analysed there is only one example which could be interpreted as expressing epistemic possibility. This hypothesis is supported by Skeat's transposition in *Modern English* (1952: 172), which goes: 'Or else he may be telling what's untrue'. It occurs in Chaucer's fiction:

- (62) Or ellis he *moot* telle his tale untrewre,
Or feyne thyng, or fynde wordes newe. (CTPROL 35.C1, Gotti & al. 2002:
148)

Also the epistemic use of MUST emerges in Middle English, especially to express speaker's/writer's inference or logical conclusion.¹⁶ For example, unambiguous examples of epistemic MUST are quite frequent in Chaucer's *Boethius*. They follow the logic of the deductive reasoning of philosophical discourse. This is clearly shown by the constant combination with *needs*, and the frequent presence of the adverb *then* and of coordinating conjunctions such as *so*, *for* and the like. The use of epistemic MUST in generic sentences combined with *needs* played a key role in its semanticization.¹⁷ Here follow some instances with neutral *it*, where the modal collocates always with the verb *be* and the adverb satellite by which the encoder strengthens his own assertion:

(63) Thanne *moot* it nedis be that verray blisfulnesse is set in sovereyn God.
(BOETHCH 432.C1, Gotti *et al.* 2002: 181)

(64) the whiche destynal causes, whan thei passen out fro the bygynnynges of the unmoevable purveaunce, it *moot* nedes be that thei ne be nat mutable.
(BOETHCH 452.C1, Gotti *et al.* 2002: 182)

The following is an example introduced by existential *there*:

(65) And herof cometh it that in every thing general, yif that men seen any thing that is imparfit, certes in thilke general ther *moot* ben som thing that is parfit. (BOETHCH 431.C2, Gotti *et al.* 2002: 182)

¹⁶ This point requires some discussion. The OED does not attest instances of epistemic MUST earlier than 1652. However, Visser argues that the notion 'inferred or presumed probability that borders on certainty' is to be taken in a wider sense than is done in OED. Starting from the following example 'That *must be* the Prince' (I conclude or infer from his behaviour (manner of speaking, etc.) that this is the Prince', he shows that "this *illative must* has been of frequent use from the last part of the fourteenth century' and points out that 'a noteworthy fact is the preponderance of the colligation of *must* with the verb *to be*.' (Visser 1963-73 §1708: 1810)

¹⁷ "If a speaker explicitly states that some event is necessarily obliged or compelled to occur in the future, especially if the source is God's authority, law, spiritual awareness or logic, the inference is readily invited that the state of affairs represented in the proposition not only will be true in the future but is virtually present" (Traugott / Dasher 2002: 128)

Even if to a lesser extent, instances with animate subjects also convey epistemic meanings:

(66) For yf that schrewednesse makith wrecches, than *mot* he nedes ben moost wrecchide that lengest is a schrewe. (BOETHCH 447.C1, Gotti *et al.* 2002: 182)

(67) he þat fayluþ to helpe oon, *mut* nedys fayle ahenys hem alle. (WSERM 11 I: 522, Gotti *et al.* 2002: 183)

The following is the only instance found in Chaucer's fiction:

(68) So buxom and so vertuous is she, / They *moste* nedes lyve in unitee. (CTMERCH 155.C1, Gotti *et al.* 2002: 183)

In M3 COULD has been found to express only dynamic modality, while epistemic and deontic values start to emerge in E3. As regards SHOULD, in very few M3 cases has a SHOULD-form been found to express a reasonable conclusion deriving from previous predications; in one instance the subjectivity of the remark is emphasized by a content-oriented booster such as *certes*:

(69) for *certes* somthing possessyng in itself parfyt good *schulde* be more worthy than God, and it *scholde* semen that thilke thing were first and eldere than God. (BOETHCH: 432.C1, Gotti *et al.* 2002: 264)

[if something possessed perfect good, people would infer that it is more worthy than God and that it seems to precede God]

Instances in which WOULD-forms have been found to express the encoder's deductions concerning a counterfactual predication are more numerous in the E3 section of the corpus. In M3 texts the subjectivity of the point of view is frequently strengthened by the co-occurrence of an epistemic adverb like *certes*:

(70) For *certes*, sire, oure Lord Jhesu Crist *wolde* nevere have descended to be born of a womman, if alle wommen hadden been wikke. [And] if that wommen were nat goode, and hir conseils goode and profitable, oure Lord

God of hevene *wolde* nevere han wrought hem, ne called hem help of man, but rather confusioun of man. (CTMEL: 221.C2, Gotti & al. 2002: 323)

(71) For *certes*, if ther ne hadde be no synne in clothyng, Crist *wolde* nat so soone have noted and spoken of the clothyng of thilke riche man in the gospel. (CTPARS: 300.C2, Gotti & al. 2002: 324)

The following M3 occurrence was found to express the encoder's subjective perception of a possible event:

(72) wher anoþer man *wolde* bid þee gader þi mihtes & þi wittes holiche wiþ-inne þi-self, [...]hit for feerde of disseite & bodely conceyuung of his wordes, me list not byd þee do so (CLOUD: 121, Gotti & al. 2002: 323)

[while it is possible that another man could bid thee gather thy strength and thy wits within thyself [...] yet, fearing deceit and an earthly understanding of his words, I wouldn't bid thee do so.]

Only one case of epistemic WILL has been found in the M3 subsection of our corpus; it expresses a deduction made by the locutor:

(73) Scabbe wol brede in þe necke. [...] & þat *wol* come of superfluyte of blod. or of oþer wicked humourr. (HORSES: 103, Gotti & al. 2002: 293)

5. CONCLUSION

The Middle English period was a period of great morpho-syntactic changes (Fischer 1992, Lass 1992). As has been seen, great innovations took place also in the meanings and uses of the category of pre-modal verbs. However, these changes were not accidental or unrelated; they were gradual and related to one another. As this paper has shown, the process analysed is a dynamic one, which can only be interpreted in a diachronic perspective. Indeed, very often adjustments and modifications took place to fill gaps existing in the system. This can be seen, for example, in the development of the uses of CAN to denote dynamic ability. The rise of the epistemic use of MAY, particularly in Middle English, and its increase to indicate dynamic

possibility, determined a loss for the expression of the meaning of ability, with the result that this gap was filled by the use of CAN to indicate ability. The closeness between MAY expressing dynamic ability and the emerging similar function of CAN favoured this shift.

The great changes analysed (e.g. the expression of the subjunctive mood or the future tense) have often been shown to have started in the form of double marking. For example, at first SHALL and WILL represented a sort of 'double marking' of futurity, in the sense that the expression of obligation and volition pragmatically implied the prediction of a future action. The original weak value of futurity gradually became stronger and stronger, also favoured by the absence of this tense marker in English, a gap which could lead to ambiguity and misinterpretation.

As has been seen, there was no sudden change and the old forms usually coexisted with the new ones for a long period of transition (e.g. the full-lexical usage and the auxiliary usage of these verbs) giving rise to frequent cases of overlapping of an old form with the modal one. A clear example has been noticed in the evolution of dynamic possibility MAY into epistemic possibility MAY, as many of the instances found in the corpus analysed are 'mergers', ambiguous to both interlocutor and linguistic observer. It can safely be deduced that, indeed, it is this ambiguity which allowed the evolution of the process.

The data found in the corpus thus enable us to conclude that in the Middle English period all central modals have made considerable progress in their evolution from full predicates to auxiliary predicates, many of them becoming predicate operators for tenses such as the future and the conditional, or for moods such as the subjunctive. The progress followed thus confirms the one pointed out in Functional Grammar terms by Goossens (1987: 118) in this scale:

Full predicates > predicate formation > predicate operators

However, it is important to point out that this evolutionary process cannot be explained in mere syntactic terms, but requires semantic and pragmatic interpretations. Moreover, the picture we obtain from our analysis of the corpus clearly indicates that modal forms do not seem to have developed in strict synchronicity. Although the grammaticalisation trend is similar for all of them, the evolutionary process of each central modal takes place in different stages and in different periods. This process, however, is a global one, in the sense that the changes of each central modal verb often depend on – and give rise to – the changes of the others.

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