Abstract
This paper deals with stance and the way this is expressed through modal verbs. It has been attested that modal verbs grammaticalize speakers’ subjectivity (Fitzmaurice 2003: 108). For this, we revise modals in the Modern English part of the Corpus of Early English Recipes to assess their use, meaning and patterns of change in a time span of two centuries (1500-1700) in the recipe genre. Our working hypothesis is that writers’ involvement and subjective assessments of facts will trigger changes in the paradigm of modal verbs to eventually shape their PDE codified meaning.

Keywords
Recipe, stance, modality, metadiscourse, deontic, epistemic

INTRODUCTION
The recipe text as a genre in the medieval period has been fully analyzed. However, after 1500, there is not any serious account dealing with this genre in the English language. The recipe offers varied information concerning not only the realm of linguistics, but also social, cultural and historical aspects. The study presented here seeks to explore aspects related to the marking of authorial stance and its implications to register in a time span of two centuries (1500-1700) in relation to modal verbs. For this, we will firstly revise earlier descriptions of the concept of stance in scientific and non-scientific writing. This includes Biber, Johansson, Leech, Conrad and Finegan (1999) –henceforward Biber et al. (1999), Biber (2004), Hyland (2000 and 2001). The study of stance covers the analysis of linguistic choices in discourse, which may express meanings other than literal.

The diachronic study of stance is performed in few studies, among which we must mention Biber, Conrad and Reppen (1998), Taavitsainen (2001), and Biber (2004). The work by Taavitsainen (2001) touches on mood and modality in the medical register, among other aspects. Biber (2004) studies stance in a multi-register corpus from a historical perspective to conclude that stance marking varies across registers: Stance strategies with similar function may differ from one register to another, and they may also increase or decrease in frequency. In general, the majority of works based on historical texts deals with modal verbs.

The paper is organized as follows: Section 1 offers a description of The Corpus of Early English Recipes, with special attention to the texts used in this study. Section 2 includes the main tenets in the study of stance and the terminology frequently associated to this concept. The following section is the analysis of findings in the corpus, and their pragmatic interpretation. Finally, the conclusions are given in section 4.
I. DESCRIPTION OF THE CORPUS

The data for the present paper have been extracted from the Corpus of Early English Recipes (henceforth CoER), a project currently underway in the University of Las Palmas de Gran Canaria. This Corpus is genre restricted and only recipes are collected for analysis. We aim at compiling no less than three million words from texts in manuscripts and printed sources, which have been typed directly into machine. The time span is 1375 to 1850 so that contrastive analyses can be performed. The books are transcribed in toto for practical purposes with the addition of XML labels to indicate the beginning and end of genres other than recipes. The project working definition of genre follows Martin (1984: 25), and it is defined as “a staged, goal-oriented, purposeful activity in which speakers engage as a member of our culture.” In this line, the recipes included in this compilation have been previously analyzed following functional-systemic linguistics, as in Halliday (1985a and 1985b), and Halliday and Matthiesen (2004). The very nature of the recipe is then formulaic in that it is made up of sections with a highly standardized use of language which can, to some extent, be predicted by the members of a particular culture. The recipe stages are TT-title, I-ingredients, P-preparation, A-application, S-storage, and E-evaluation.

For the analyses we have randomly selected ca. 350,000 words from eleven different books (only recipes are enquired in data retrieval). These books are listed below, together with a short name in brackets for further reference in this paper. The titles are transcribed literatim from the originals without editorial intervention.

- A booke of the arte and maner, howe to plant and graffe all sortes of trees howe to set stones, and sowe pepines to make wylde trees to graffe on, as also remedies and medicines, 1572. (plant)
- The Treasurie of commodious Conceits, & hidden Secrets. and may be called, The Dutwies Closet, of healthfull prouision, 1573. (treasurie)
- A booke of soueraigne approued medicines and remedies as well for sundry diseases within the body as also for all sores, woundes..., 1577. (soueraigne)
- A thousand notable things, of sundry sortes Wherof some are wonderfull, some strange, some pleasant, diuers necessary, a great sort profitable and many very precious, 1579. (thousand)
- A briefe and pleasaut treatise, entituled, Naturall and Artificiall conclusions, 1584. (naturall)
- A delight daily exercise for ladies and gentlewomen, 1621. (daily)
- The vviddovves treasure Plentifully furnis hed with sundry precious and approued secrets in physicke and chirurgery, for the health and pleasure of man-kinde, 1631. (widowes)
- A Book of COOKERY, And the or der of Meates to be served to the Table, both for Flesh and Fish dayes, 1650. (cookery)
- A choice manuall, or rare and select secrets in physick and chyrurgery collected, and practised by the Right Honorable, the Countesse of Kent, late deceased, 1653. (choice)
- ARCHIMAGIRUS ANGLO-GALLICUS: OR, Excellent & Approved Receipts and Experiments in COOKERY, 1658. (archimagirus)
- The vwhole Body of COOKERY DISSECTED, 1673. (body)
II. THE CONCEPT OF STANCE

Stance is related to the expression of the speakers or writers' "personal feelings, attitudes, value judgements, or assessments". The study of discourse stance has been carried out under different terms, such as evaluation (Hunston, 1994; Hunston and Thompson, 2000), evidentiality (Chafe 1986), and affect (Ochs, 1989). Hyland (1998: 5) studies the term hedge and, under this label, he includes "the means by which writers can present a proposition as an opinion rather than a fact: items are only hedges in their epistemic sense, and only then when they mark uncertainty".

The concept metadiscourse is also related to the above concepts. Metadiscourse is "a fuzzy term, often characterized as simply 'discourse about discourse' or 'talk about talk'". Hyland points out that the interpersonal concepts of stance, evaluation, and engagement overlap with metadiscourse (Hyland 2005: 37-38): Metadiscourse is the cover term for the self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer (or speaker) to express a viewpoint and engage with readers as members of a particular community. This definition of metadiscourse pursues the similar function than the definition of stance by Biber et al. (1999, § 12). Both seek to unravel information other than propositional in the text. Biber et al. (1999, § 12) classify stance from a semantic perspective into (a) epistemic stance ("comments on the status of information in a proposition"), (b) attitudinal stance (these markers "report personal attitudes or feelings", and (c) style of speaking stance ("comments on the communication itself"). The marking of stance can be done in several ways: (a) lexical marking, (b) grammatical marking, and (c) person marking.

Lexical stance markers rely on the evaluative lexical items: nouns, adjectives, and verbs. Grammatical stance markers are categorized into the following devices: (a) stance adverbials, (b) stance complement clauses, (c) modals and semimodals, (d) stance noun + propositional phrase, and (e) premodifying stance adverb (stance adverb + adjective or noun phrase). In this study, we intend to describe the modal verbs in the eModE part of CoER, with the exception of shall and will that are left for future research.

Finally, person marking is defined thus: Person marking refers to first, second or third person marking of a verb or predicative adjective. Person marking identifies "grammaticalization of a subject's attitudes and opinions" (Palmer, 1986).

III. STANCE AND MODALITY IN COER (1500-1700)

Modal verbs affect the meaning of the complete proposition they hedge. They show two types of meaning, namely epistemic and deontic. Epistemic is "concerned with matters of knowledge or believe on which basis speakers express their judgements about state of affairs, events or actions" (Hoye 1997: 42). Deontic modals refer to the "necessity of acts in terms of which the speaker gives permission or lays and obligation for the performance of actions at some time in the future (Hoye 1997: 43). This distinction coincides with Biber et al.'s (1999: 485) intrinsic and extrinsic modality:

Each modal can have two different types of meaning, which can be labeled intrinsic and extrinsic (also referred to as 'deontic' and 'epistemic' meanings). Intrinsic modality refers to actions and events that humans (or other agents) directly control: meanings relating to permission, obligation, and volition (or intention). Extrinsic modality refers to the logical status of events or states, usually relating to assessments of likelihood: possibility, necessity, or prediction.

The corpus contains the distribution of modal verbs shown in Figure 1:
These modal verbs, with the exception of shall and will, are used as shown in Figure 2. In the next sections, we describe them grouped into intrinsic (or deontic) and extrinsic (or epistemic) modality.

III.1. Intrinsic modality

As already explained, this type coincides with Hoyes's deontic modality and refers to events that humans directly control. In Figure 3, the frequency of intrinsic modality is given, together with the forms used to show this meaning. As seen there, must appears as the most frequent modal verb with the meaning of obligation. The following instances illustrate all this (spelling as in the originals):
Figure 3. Intrinsic modality in CoER

1. For the bloody Flixe. Seeth mylke, and in the seething put in a peecce of Roche Allam, whiche will cause a curd, which curd being cleane taken from the whay, you must drynke the sayd whay as hot as is possible: also yf your stomacke can possible beare it, you must eate the curd, and with Gods help you shal recouer (soueraigne).

2. You must boyl and blanch your Calves feet, and when they are cold, mince them with half the quantity of beef suet, with a handful of good sweet herbs, Parslee and Spinnage minced, put to them a good quantity of Currans, some Cloves, Mace, Cinamon, Ginger, Nutmeg, Sugar and Salt, with a little Rose water (body).

In these examples, we can infer obligation. In both (1) and (2) must indicates required actions either to cure the sick person in the case of the second instance, or to be able to perform the next instruction in the recipe, i.e. mince them. The case of the must forms in (1) is specially relevant in the context of the following proposition in the text: and with Gods help you shall recover. The author conditions the truth of this proposition to the fulfilment of drinking the whey and of eating the curd. However a further condition is added in the string with Gods help. This is why shall is used in you shall recouer that may indicate either prediction or tentative possibility. The former is assumed if we consider that the help of God is beyond human choice, and so the meaning is deontic. The latter is epistemic in the sense that the action is likely to happen in normal circumstances after the fulfilment of the conditions. The help of God is received if the patient merits its grace. One similar example in the corpus is and by the grace of God he shall sleepe within one quarter of an houre (soueraigne).

Would implies volition. The example in (3) below, illustrate this meaning. Here, the author relies on the voluntary performance of the action by the doer, and so would evidences this.

3. To make a Trifle. Take a pint of thicke Creame, and season it with Suger, Ginger and Rose-water, and stire it as you would, then hew it and make it luke warme in a dish upon a Chafingdish of coles (cookery).
Ought to exclusively shows obligation in our selection of texts. Examples are:

(4) With what dung ye ought to dung your trees (plant).
(5) This medicine following, is proued by experience, and as a certayne diuine thing, doth cure euerye plurisie, and doth relieve the sicke from death: which ought not to be applied vnto the sicke partie, vntyll the fowrth daye be past. Take of Dealtha two ounces, (which is to be had at the Apothecaries:) the oyle of sweete Almondes halfe an ounce, myxe them together: with which oyntment (being warme,) let the grieued place be annointed (thousand).

The use of ought to in the first instance indicates lack of volition on the part of the doer, and so the instruction must be followed as indicated. As also happens with other intrinsic modulation of propositions indicating obligation, we may perceive the author's authoritative voice. A similar function is fulfilled in the second case. The doer (practitioner or lay folk) is compelled by the author not to apply the product on the patient until four days of preparation have gone by. This utterance with ought to stands as a premise for the successful outcome of the disease. The writer exhibits his expertise and command on the topic and so, from an interpersonal perspective, the author places himself higher in the rank.

Should and have to also appear in the corpus showing obligation, but their frequencies of occurrence are only 3.5% and 0.3% of the modals with this meaning, respectively. In the instances below, the author expresses obligation with these two modals. In the specific case of (6), should may be interpreted as a recommendation rather than an obligation. Considering the instructive nature of the recipe, and the large number of equal contexts in which must is used instead, we think it is safe to consider should as a marker of obligation here, if the correct result wants to be achieved.

(6) In the baking thereof you should put some Wine or strong broth, being thickened up with a yolk or two of an egg, will serve for a leare to put over it, so garnish it (body).
(7) To fry Coller’d Pork. You may see how to Coller it, as before; all that you have to do is to slice the Coller, and your Pan being very hot, fry it with clarified stuff: you may eat it with Mustard as you do Sowse; this may serve when you have occasion to add a dish to your common dyet (body).

The last form showing intrinsic meaning is may. This verb is used to indicate permission, as in the example in (8). In this case, the author indicates the reader that there is no restriction for the intake of the medicine, once it cools down. However, we could also infer an extrinsic meaning in this context. Then, the author would imply possibility rather than permission. Our first option is permission since, frequently at this point, the recipe information on restrictions regarding application and dosage is given.

(8) A Medicine for any Wound old or new. Take a pint of Sallade oyle, and four ounces of Bees Wax, and two ounces of Stone-pitch, and two ounces of Rosin, and two ounces of Venice Turpentine, and one pennyworth of Frankincense, and a handfull of Rosemary tops, and a handfull of Tutson leaves, and a handfull of Plantain leaves; these Hearbs must be stamped, and the juyce of them put to the things aforesaid, and let them boyle altogether about a quarter of an hour, or thereabouts, this being done, put it into an earthen pot, and when it is cold you may use it as you have occasion, and keep it two year a most excellent Medicine (choice).
III.2. Extrinsic modality

Extrinsic modality in the corpus is shown in Figure 4, below. As seen all the modals in the corpus are indexed for at least for one of the extrinsic categories. *May* is the most frequent means to register possibility or tentative possibility, followed by *must* and *ought to*. In the case of prediction this is mainly marked by *must* and *would*. Finally, necessity is expressed by means of *ought to*, *should*, *have to*, and *must*. This last meaning of modals is very sporadic. It is noteworthy the combination of *must* and *needs* to show this meaning: *Note also, that divers persons do onely make use of the single pepper instead of other spices, although it must needs be granted that the composed spices all together (archimagirus).*

Figure 4. Extrinsic modality in CoER

As already stated above, the most frequent forms to show possibility are *may* and *must*, in this order. In (9) below, *may* is used to show tentative possibility. This modal verb hedges the proposition in such a way that it qualifies its truth. The writer cannot fully account for the exact timing required to boil the product. This idea of vagueness is also reinforced by the lexical item *suppose* that indicates an assumption rather than a fact.

(9) To pickle Quinces. Take your fair Quinces, and core them with your boring irons or scoop; take the worst of your Quinces, and cut them to pieces, and boil your core or pieces in your pan of liquor, so that you make the liquor strong, then boil your Quinces prepared to pickle, till they *may* be supposed a quarter boiled, then strain out your liquor your hair-sieve, or strained, and put a small quantity of salt, add there to some strong beer, and put up your Quinces whole in your Vessel or Pot, and pour in some of the same liquor, and stop them close up (*body*).

The following examples imply prediction with *must*. In (10) the author expects the syrup to show certain degree of thickness and this knowledge is obtained through experience. The author also manifests some hesitation in the use of the modal, and so it could also indicate some kind of imprecision. This vagueness is reinforced by the use of somewhat that hedges the adjective *thick*. In (11) *would* provides the proposition with this same meaning of prediction. The author shows his attitude towards what is said by presupposing the truth of the future action.
(10) and let them boyle softly till you think they be enough, and the sirrop must be somewhat thick; then let your Orenge stand all night upon the fire (cookery).

(11) Who so would haue a very whyte & delycate skyn. Let them boyle or heate Lytarge of Syluer in vinegar distylled: and wash therwith theyr skynne whiche they desire to haue fayre, trym and whyte. This I tooke out of Mizaldus (thousand).

IV. CONCLUSIONS

This preliminary study has shown the various meanings of modal verbs during the eModE period in a corpus of recipes in a time-span of two centuries. One main conclusion is that modals are not systematically used, and so one function may be fulfilled by more than one form. Still, data show the tendency to standardization of functions, and so may for instance is the preferred form to mark possibility. Our interpretation of modals in relation to the authors's intention requires a thorough analysis of the linguistic context in order to determine their meaning category in the intrinsic/extrinsic distinction put forward by Biber et al. (1999). Much work remains to be done in order to complete the picture of modals in these specialized texts of the Modern English period. One such task is to consider the professional and social contexts in the interpretation of modulation.

References


