Tutkimuksessa vertaillaan eri semimodaalisten verbien lauseopillisia ominaisuuksia, ja lähemmän tarkastelun kohteena on verbi *is to*, jonka esiintymistä tarkastelen kahdessa eri korpuksessa. Toinen korpus, *British National Corpus* (*BNC*) sisältää esimerkkejä nykyenglannin puhutusta ja kirjoitetusta kielestä ja toinen, *COPCA* (*Century of Prose, Part A*), otteita 1700-luvun englantilaisesta proosasta.

Tutkimuksen alussa esitellään erilaisia modaaliverbien tunnusmerkkejä, joiden avulla semimodaalisia verbejä myöhemmin tarkastellaan. Näihin tunnusmerkkeihin kuuluvat esimerkiksi apuverbeille tunnusomaiset *NICE*-ominaisuudet. Lisäksi esitellään ns. *TNP*-testit, joiden avulla pyritään määrittämään, onko tutkittu verbi osa yksinkertaista vai monimutkaista verbilauseketta. Koska kirjallisuudessa semimodaalisiin verbeihin on viitattu usealla eri nimikkeellä, ja tähän ryhmään on käsitetty kuuluvan eri verbejä, tutkielmassa käsitellään myös tieteellisessä kirjallisuudessa esiintyvää terminologiaa, sekä eri verbiryhmiä, joihin kyseisillä termeillä on viitattu.

TNP-testien perusteella voidaan sanoa, että semimodaaliset verbit ovat hyvin heterogeeninen verbiryhmä, eikä voida osoittaa, että ne olisivat joko yksinkertaisten tai monimutkaisten verbilausekkeiden osia. Jopa yksittäisten verbien kohdalla TNP-testien tulokset vaihtelevat välillä hyvinkin paljon. Vertailemalla semimodaalisten verbiryhmien NICE-ominaisuuksia muodostetaan jatkumo, jonka kahtena ääripäänä ovat modaaliset verbit ja leksikaaliset verbit. Lähimpänä leksikaalisia verbejä todetaan olevan verbin *have to*, kun taas jatkumon 'modaalisimmassa' päässä ovat verbit *ought* ja *is to*.

Verbiä *is to* tarkastellaan ensin nykyenglannissa; tutkittavana aineistona on sata miljoonaa sanaa käsittävä *BNC*. Tutkimuksen runkona käytetään Palmerin (1979, 1987) verbille määrittämää neljää päämerkitystä: tietoisesti suunniteltu tulevaisuus, kohtalonomainen tulevaisuus, mahdollisuus, ja käsky tai ohjeenomainen suositus. Aineiston perusteella voidaan sanoa, että osalla merkityksistä on enemmän mahdollisia aikamuotoja kuin Palmerin määrityksessä. Esimerkiksi kohtalonomaisen tulevaisuuden ilmaisemisen on mahdollista myös preesensissä, mistä historiallisessa aineistossa löytyykin useita esimerkkejä. Verbillä on lisäksi kolme idiominomaista merkitystä. Näistä mielenkiintoisimmaksi osoittautui sanonta *is to blame*, jolla todetaan olevan erilaisia syntaktisia ominaisuuksia kuin *is to* –verbillä muuten. Kiinnostava huomio on esimerkiksi se, että vielä 1700-luvun englannissa *is to* –verbillä oli ei-finiittisiä muotoja, mutta nykyenglannissa *is to* –verbin ainoat ei-finiittiset muodot esiintyivät ilmaisun *is to blame* yhteydessä.

Is to –verbin historiallista käyttöä tarkastellaan 300 000 sanaa käsittävässä *COPCA*-korpuksessa. Vaikka osa verbin käyttötavoista on suhteellisen samanlaisia kuin nykyenglannissa, myös eroja löytyi. Koska historiallinen aineisto on suhteellisen pieni, varsinaisia johtopäätöksiä muutoksista verbin käyttötavoissa ei ole tehty. Materiaalin perusteella voidaan kuitenkin olettaa, että 1700-luvulla *is to* –verbin käyttö on ollut monipuolisempaa kuin nykyään.

Perspectives on Semi-modals with *Is to* as a Case in Point

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Table of Contents:

1 Introduction

In the field of research of the English grammar, modality and the modal verbs are considered by many to form a particularly challenging and tangled area of study. This view is taken for instance by Palmer, who, in an introduction to his renowned study *Modals and Modality* (1979), states that there is likely to be "no area of English grammar that is both more important and more difficult than the system of the modals", and concludes later that the general view of the modals is unquestionably "extremely 'messy' and untidy and the most a linguist can do is impose some order, point out some regularities, correspondences, parallelisms" (1979, 40). Palmer's view might not embolden one to do research on semi-modals, which, from many aspects, are linked to the study of modality. Nonetheless, the first part of this study will serve as an optimistic attempt to clarify the concept of semi-modals, which indeed may seem to many even more 'messy' than the modals themselves.

In the literature, the semi-modals are not recognised as a uniform group. Different attempts to classify and group the semi-modals will be discussed in section 3; for now it suffices to know that the semi-modals include for example verbs like *be going to, have to, is to* and the idiomatic phrases *had better* and *would rather*.

The main questions sections 2 and 3 set out to investigate are the following:

Can there be found any coherence in the abundance of terminology connected to semi-modals in the literature?

Is it possible to define whether verb phrases with semi-modals form simple clauses (like in the case of all auxiliaries) or complex clauses (like in the case of catenatives[1])?

Can there be found different patterns of behaviour (concerning for example negation) among the semi-modals, and further, are some semi-modals thus more 'modal-like' than others?

Moreover, sections 4 and 5 will introduce a corpus study carried out on the verb *is to*, and for the discussion will be built around the following themes:

Different senses of *is to* in Present Day English and its relations to the central modals

The differences between historical use of *is to* and its use in Present Day English (the examples will be from 18th century English).

In this study, the semi-modals are seen as verbs that are not 'formally' modals but have other modal-like qualities. This view is taken also for example by Palmer (1979, 18), who suggests the term *modality verbs* for describing an entity that includes both 'true' modals and semi-modals. An important distinction is naturally the one between the modality verbs and other, lexical verbs.

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[1] The term catenatives will be used throughout this study to refer to verbs other than auxiliaries that occur in chain-like structures, including verbs like *seem*, *appear*, *want* and other similar types.
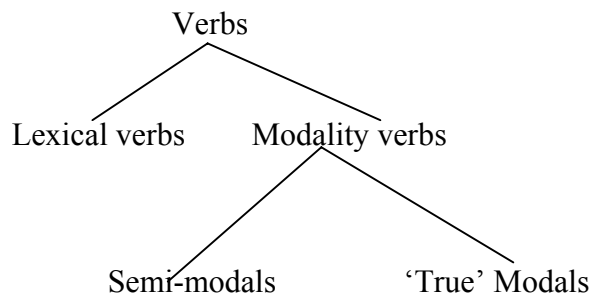
Figure 1. Semi-modals in relation to other verbs

Since the semi-modals do not have the limited grammatical properties of the modals, they consequently have an important place in the semantic system in that they are able to express meanings that the modals fail to do (for example *had to* can often be used to express the past tense of *must*). Considering the fact that also many catenatives have modal meanings, one might wonder whether the semi-modals could be justly labelled as a separate verb group. Here the definition given above indeed requires an additional note: Although the semi-modals are not 'formally' modals, they have some of the syntactic properties of the auxiliaries (and some of them actually have some properties of the modals as well), and can therefore be said to stand apart from the catenatives.

To the extent that it has been possible, the examples used in sections 2, 3 and 4 have been taken from the British National Corpus. Due to the limitations set to the length of this study, the semantic qualities of the semi-modals other than *is to* will not be discussed here in any detail. It may be mentioned here only that the 'true' modals have semi-modal counterparts (like *must – have to* and *can – be able to*), which can in some cases be used interchangeably with the modals, but most often change the meaning or tone of the sentence to some extent.

2 Background

The following paragraphs introduce some syntactic qualities of the auxiliaries and some characteristics of simple and complex phrases. These will be used in section 3 to define the grammatical status of the semi-modals. Sections 4 and 5 will present a more detailed introduction on one of the semi-modals; namely the verb *is to*.

2.1 The NICE Properties

It is a widely accepted argument in the literature that auxiliaries can be defined as a separate group of verbs, and not subordinates of main verbs, as has been argued by some (see for example Huddleston 1976, 333). Auxiliary verbs, including the modals auxiliaries, are set apart from other verbs by virtue of grammatical characteristics commonly known in the literature as the *NICE Properties* (originally presented in Huddleston 1976, 333; see also for instance Palmer 1987, 14ff; Downing and Locke 1992, 317f. (under the heading 'Syntactic features of the operator element')). The letters of NICE stand for *Negation*, *Inversion*, *Code* and *Emphasis*.What is significant about them is that they show distinctions between auxiliaries and catenatives, for although some catenatives can be followed by a bare infinitive (e.g. *help*, *let*, *make* and some verbs of perception like *feel*, *see*, *hear*, *notice*, *watch*, *observe*, *overhear*) like auxiliaries and share some semantic properties of the modal auxiliaries, they do not possess the NICE properties (see for instance Greenbaum and Quirk 1990, 351f. and Downing and Locke 1992, 97).

Negation relates to the use of an auxiliary as an operator in negative clauses. In clauses with no auxiliary, the 'dummy'-auxiliary *do* is used when the clause is negated: *Should we take a bus or do we have time to walk there?*

Inversion also involves the use of an operator, this time in inverted clauses such as questions and sentences with, as Quirk et al express them, "introductory negatives or semi-negatives"(1985, 124). An example taken from Quirk et al may clarify the concept of a semi-negative: *Least of all is it in our interest to open negotiations now.* (p. 1382).

The third property, Code, relates to the use of an auxiliary in so called reduced clauses. A typical example of a reduced clause is the *and so-* construction: *She may be invited to the party and so may he.* Here again it is the auxiliary that functions as an operator whereas in non-auxiliary clauses *do* is used.

Last, Emphasis refers to emphatic affirmative clauses, where the emphasis is conveyed by placing the accent on the auxiliary; again, *do* steps in if there is no auxiliary present. According to Palmer, the important point is that the auxiliaries are used for "emphatic affirmation of a doubtful statement" (Palmer 1987, 21). An example of this could be *I díd go to school today* (where the boy's/ girl's mother thinks that the child has been skipping school).

The primary auxiliaries are generally recognised by grammars to include *be*, *have* and *do*. These can also function as main verbs (see for instance Downing and Locke 1992, 317; Greenbaum and Quirk 1990, 36-39; Palmer 1987, 21, 159). *Be*, and to some extent *have* (but not *do*) possess the NICE properties both as auxiliaries and as main verbs (on exceptions, see for instance Palmer 1987, 164). This is, again, a possible counter-argument on the validity of using the NICE Properties to identify the auxiliaries.

However, according to Palmer (1987, 29), in many languages verbs like *be*, *have* and *do* show exceptional grammatical behaviour, and it would be perhaps stranger if they had developed a regular main verb behaviour. This has, in fact, happened in the case of the verbs *need* and *dare*, which function both as auxiliaries (although there are restrictions on their use as auxiliaries; on these see for instance Palmer 1987, 24; Quirk and Greenbaum 1990, 40) and as main verbs, but do not have the NICE Properties as main verbs.

The central modals are in general agreed to include *must, can*, *may, shall and will*. As the use of *could*, *might*, *should* and *would* to refer to past situations is restricted to a few cases, and they most commonly have present meanings, they are by several grammars recognised as separate modal verbs (see for instance Downing and Locke 1992, 315; Coates 1983, 4; Biber et al 1999, 483). Several grammars include *ought* as a modal (Downing and Locke 1992, 315; Palmer 1987, 26; Coates 1983, 4), its only exceptionality being that it is often followed by a *to* infinitive. *Used to* is always followed by a *to* infinitive and in Present Day English it rarely functions as an operator, thus often included in the modals only as a marginal case. Also *dare* and *need* are by some grammars considered to belong to modals (Palmer 1987, 26) whereas others consider them as marginal modals (see for instance Greenbaum and Quirk 1990, 39) or semi-modals. This is due to the fact, mentioned above, that they can function both as auxiliaries and as main verbs.

While the NICE properties are characteristic for both primary auxiliaries and modals, there are also some formal criteria that are relevant only for modals; Quirk et al states four: First, modals are followed by a bare infinitive; second, they do not have non-finite

forms (e.g. *–ing*) and thus cannot be combined, third, they have no *s*-form; and fourth, their time reference with the past tense forms is "abnormal" (Quirk et al 1985, 137). The abnormality refers to fact mentioned above that the past tense forms of *shall, will, can* and *may* (*should, would, could* and *might*) are only on certain occasions used to refer to past time, and otherwise have different meanings. One could also mention an additional criterion; namely that modals can occur only as the first verbs of a verb phrase (for definition of verb phrase, see p. 9). It may be argued though that this is only due to the fact that they have no non-finite forms, this being an additional argument for the theory that auxiliaries are main verbs. However, according to for instance Palmer (1987, 30) it seems more plausible that the fact that modals have no non-finite forms is due to the fact that they do not occur except in initial position.

An important point that one might also consider is that there seem to be no restrictions whatsoever on the choice of the subject in terms of the auxiliary (Palmer 1987, 31). Thus, all the restrictions related to for instance whether a sentence needs an animate or inanimate subject can be tracked down to the "first full verb". Palmer (1987, 31) gives the following examples:

> *The water runs down the street.*
> *The water is running down the street.*
> *The water may run down the street.*
> **The water intended to run down the street.*

However, as a criterion of an auxiliary, the 'independence of the subject' is problematic for at least two reasons. First, Palmer fails to mention that it is not a property that would be exclusive for auxiliaries, for there are also a number of catenative verbs

that seem to be totally independent of their subject. The following examples taken from

Downing and Locke (1992, 329) show some of these:

$$
\textit{Phil} \left|\begin{array}{l} \textit{appears to} \\ \textit{happens to} \\ \textit{fails to} \\ \textit{tends to} \\ \textit{ceased to} \end{array}\right| \textit{recognise the implications.}
$$

$$
\textit{The implications} \left|\begin{array}{l} \textit{appear to} \\ \textit{happen to} \\ \textit{fail to} \\ \textit{tend to} \\ \textit{ceased to} \end{array}\right| \textit{be recognised by Bill.}
$$

Second, in his discussion, Palmer excludes cases where defining the subject is itself

problematic. Although the *grammatical* subject is a clearly definable concept, the 'real'

subject is often a more complex matter. There seem to be at least two relatively common

constructions where the 'real' subject may differ from the grammatical subject: First,

sentences that are in the passive (and have an agent), and second, sentences where the

subject is inanimate but 'contains' in fact an animate subject. The following examples

may clarify these cases:

> *The results are to be presented to the annual congress of the College of Ophthalmologists tomorrow by Mr Miles Tutton…* (AJ7 7)

> *Cars daren't risk taking the short cut.* (K27 1411)

In the first example, the grammatical subject is *the results*, but the 'real subject', the active contributor to the action, is *Mr Miles Tutton*. In the second example, although the grammatical subject is *the cars*, the predicate *daren't risk* seems to relate rather to the *drivers* of the cars. These additional matters will be considered again later when the subject independence of the semi-modals is discussed.

From here on it will be assumed that auxiliaries form a distinct verb category, and the term *main verb* will be used to refer to all other verbs (including the catenatives). The term *verb phrase* will be considered to include verb combinations such as *must go*, *may have been running*, *seems to be* and *likes dancing*. The term verb phrase might actually be understood to have two different meanings (Palmer 1987, 27): First, it refers to verb combinations such as the above. Second, verb phrase can be used to describe a sequence of verbs that contains one main verb: Thus, the example *seems to be* consists of two verb phrases in the second meaning of the word.

2.2 TNP – Tense, Negation, Passivization

It is important to make a distinction between *simple* and *complex verb phrases* (see for instance Palmer 1987, 27f). These terms can roughly be interpreted as corresponding to the two meanings of verb phrase discussed above. However, this may cause confusion for, as stated above, main verbs are considered to include all other verbs than auxiliaries. This would lead one to conclude that verb phrases containing a modal should be regarded as simple verb phrases. However, according to Palmer (1987, 28), and as will be seen later in this section, verb phases containing a modal do not behave as a uniform

set, but rather share characteristics of both simple and complex verb phrases. The concepts of simple and complex verb phrase help to show general differences between phrases containing a primary auxiliary, a modal or a catenative. It will be seen that phrases with catenatives are always complex clauses. Moreover, phrases with primary auxiliaries will be identified as simple verb phrases.

In his discussion on simple and complex verb phrases (1987, 26 ff.), Palmer introduces tests for *Tense*, *Negation* and *Passivization*, which can be used to distinguish simple and complex verb phrases. After presenting the tests, Palmer states that they are eventually "rather inconclusive" (1987, 31), but as they appear to show at least some different tendencies among the catenatives, primary auxiliaries and modals, they are considered worth presenting here.

The first test relates to the supposition that a simple verb phrase includes only one tense marker, whereas in a complex verb phrase all of its constituents may be independently marked for tense. An example of a complex verb phrase might be *He seemed to have been out of town for a long time*. The two main verbs in this phrase are *seem* and *be*, both here marked for past tense.

Verb phrases with modals may be marked for past tense in two different ways. Either the modal itself may have past time reference, as in *He would read me stories until I fell asleep*, or the proposition may be in the past tense as in *She may have left already*. In cases of deontic[2] modality it seems that neither the modal nor the proposition may be marked for past tense: An example like *You must have come in* (as opposed to *You must*

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[2] The word deontic is used here and throughout the paper to refer to the kind of modality that is used to, as stated by Palmer, "give permission… and make a promise or threat… or lay an obligation" (1979, 58).

come in) seems impossible to interpret in the deontic sense. In general it seems that both the modality and the proposition cannot be marked for past tense (Palmer 1979, 34).

However, Palmer excludes from his discussion examples like *You should have come to the party.* This particular example may seem confusing in that since *should* is formally the past tense of *shall*, and thus could be understood as a past tense marker, this would mean that both the modal and the proposition were here marked for past tense. It seems that *should* needs to be understood here as a present tense form like *would* in *Would you give me a hand*? However, this is indeed a tricky question since, on the other hand, it is not possible for a speaker to lay an obligation to something that has happened in the past. Rather, it seems that this example should be interpreted in the way that the obligation existed already in the past, at the time of the party (see a related in discussion in Lyons 1978, 824). Nonetheless, a general guideline for studying the modals in terms of tense markers is that the phrase with a modal auxiliary can be marked for past tense (or future) only once.

The test for negation is similar in that it is assumed that a simple verb phrase can be negated only once, whereas in a complex clause, each constituent may be individually negated. Palmer (1987, 30) gives the following examples on different possibilities of negating a complex verb phrase:

> *John prefers to come.*
> *John doesn't prefer to come.*
> *John prefers not to come.*
> *John doesn't prefer not to come.*

Conversely, an example of a simple verb phrase might be as follows:

*I'm not coming to the party. / *I'm not not coming to the party.*

Although the lexical verbs and the primary auxiliaries appear to behave fairly regularly according to the above patterns, the modals show great variation in terms of negation. Yet, the norm seems to be that a verb phrase with a modal is negated only once (for exceptions, see p. 13f).

In cases of epistemic modality (see definitions of epistemic modality for instance in Coates 1983, 18; Downing and Locke 1992, 382; Palmer 1987, 98) either the modal or the proposition may be negated, as in the following examples:

> *So long as he speaks the truth it can't be folly –* (EVC 2725)
> (Cf. *So long as he speaks the truth it is not possible that it is folly*)

> *The ideas may not always have been understood, or properly applied.*
> (ABJ 3220)
> (Cf. *It is possible that the ideas have not always been understood*).

With deontic modals it seems that the modality is negated when the sense is 'possibility', whereas in the 'necessity' sense either modality or the proposition can be negated (more of this in Palmer 1987, 101). The following examples clarify the two different types of negation; the first presenting negated possibility, the second and third negated necessity:

> *A bill comes in and along comes sugar daddy with a loan, you can't resist it.*
> (EG0 202)
> (Cf. *…it's not possible for you to resist it.*)

> *You must not smoke when dealing with members of the public.* (HCL 540)
> (Cf. *It is necessary for you to not smoke…*)

> *Setting yourself high standards does not mean you need not be realistic.*
> (BNL 306)
> (Cf. *...does not mean it is not necessary for you to be realistic*).

In his discussion on negation of modals, Palmer states that "some of the modals …appear to allow separate and double negation" (1987, 31). Unfortunately there is no more accurate definition of what is meant by these terms, but presumably *double negation* refers to cases where both the modal and the full verb are being negated, as here with *can*:

> *...it's about how God can't not exist.'* (APM 1756)
>
> *I'd go to Greece these holidays and I absolutely can't not go now.*
> (CDB 2068)
>
> *You can't not like Oliver once you get to know him...* (EDJ 818)
>
> *Anyway, you can't not eat breakfast because then you'd be ill.* (HH9 1213)
>
> *You can't not know a lad who lives in the same street.* (K2F 1310)

Also, for example Lyons considers the example *It can't not be raining* as natural, but doubts whether *It mustn't not be raining* could be regarded as acceptable except in certain limited contexts (1978, 801). However, *can* is not the only modal that allows double negation, for in the BNC there are also examples of similar negation with *could* (four examples), *should* (one example) and *would* (one example):

> *It pinned us down and made us feel that we couldn't not go back without feeling terribly guilty.* (B3F 1192)
>
> `*You shouldn't not do it because it's disgusting, ´ said Bernard, ´but because it's carnal* (HGJ 1201)
>
> *In the sense that production could be upped but your level of income wouldn't not be permitted to rise* (HUY 50)

In the examples with *couldn't* and *shouldn't*, it seems that negating the negative form is semantically coherent, and presumably in these examples *not* would be emphasised in speech. However, in the last example double negation is more complex in that the sentence would seem to make more sense with only one negation (as in *...but your level of income wouldn't be permitted to rise*). This suggests that the last example may be an unintentional mistake rather than an actual example of double negation. This example in fact shows one of the most important challenges of corpus study in general (see also discussion on an ambiguous corpus example in 4.1.2 on p. 52), namely the problem of interpreting senses of words in a limited context.

Further, studying the negation of modals is complicated in the sense that not all possible negative forms are used. According to Quirk and Greenbaum, for example *mayn't* and *shan't* are "virtually non-existent" in American English, while in British English "*shan't* is becoming rare and *mayn't* even more so" (1992, 39) and Palmer goes as far as saying there is "no negative form *mayn't, but only may not" (1987, 17). Also, several different modals (or semi-modals) can often be used to express similar meanings (Palmer 1987, 100). This can be seen for example in the last example of the previous page (*You needn't bother doing that*), in which 'not must' is expressed by *needn't*.

The third test relates to the passive transformation of a verb phrase: It is assumed that in a situation in which a verb phrase is passivized as a whole and without any significant change in meaning, the verb phrase may be considered as simple. On the other hand, a complex verb phrase cannot be passivized without change in meaning. The following examples illustrate this:

She is visiting the doctor now.
≈ *The doctor is now being visited by her.*

She may be visiting the doctor at the moment.
≈ *The doctor may be being visited by her at the moment.*

She wants to visit her grandmother.
≠ *Her grandmother wants to be visited by her.*

The passivization test works quite well, for in general it seems the primary auxiliaries and the modals are voice neutral, whereas catenatives are not (Palmer 1987, 319). However, there are exceptions. First, there are also some catenatives like *seem* and *appear* that are voice neutral (*She seems to know him* ≈ *He seems to be known by her; You appear to like your new students* ≈ *Your new students seem to be liked by you*) (see for example Palmer 1987, 184 and on other voice neutral catenatives, p. 81). *Will*, on the other hand, is not voice neutral in its volitional sense. Palmer (1987, 31) gives a following example on this:

John won't meet Mary. ≠ *Mary won't be met by John.*

In the following section, the NICE properties and the specific criteria for modals plus the TNP tests will be used to study the syntactic properties of the semi-modals. The hypothesis is that the semi-modals are in general to be considered as auxiliary-like elements and thus constituents of simple rather than a complex clause. Further, it is assumed that individual semi-modals will be found to vary from each other in terms of these qualities.

3 Semi-modals – Main Verbs, Auxiliaries or neither?

In the light of what was said in the last section about the characteristic properties of the auxiliaries and the different types of verb phrases, we move on now to study the semi-modals and analyse their grammatical behaviour.

3.1 Examples of Classifications

As mentioned in the Introduction, the definitions of semi-modals presented in the literature show a great deal of variation. First, the terminology varies: Groups loosely equal to semi-modals as defined in the introduction have been recognised by different scholars at least as *quasi-modals* (for instance Chapin (1973), Coates (1983)), *quasi-auxiliaries* (Joos (1964)), *semi-auxiliaries* (Quirk et al (1985)), *lexical auxiliaries* (Downing and Locke (1992)) and *modal idioms* (also Quirk et al (1985)), and further investigation would probably produce additional terms.

The choice of labelling may appear trivial here, but is not necessarily so. Since modals are a sub-class of auxiliaries, a semi-modal is surely also a semi-auxiliary (= a marginal member of the auxiliaries). But a semi-auxiliary need not be a semi-modal, for it could be a marginal member of another sub-class of auxiliaries.

Using the term semi-auxiliary could mean, for instance, that modal meaning is not involved. Significantly, Palmer suggests that *used to* (a marginal modal according to for example Quirk et al (1985) and a marginal auxiliary according to Biber et al (1999)) could be considered "a marginal member of the primary auxiliaries" (1987, 170). This is

presumably on the grounds of meaning in that it has rather a temporal than a modal meaning, but note that the modal *would* can express a similar meaning of past habit as in *When she came to see us, we used to/would sit by the fire and listen to her stories*. On the other hand, *would* in this example can also be argued to have a temporal rather than a modal meaning.

Nevertheless, the labelling difference between the terms semi-auxiliary and semi-modal (quasi-modal and quasi-auxiliary) is unlikely to be tied to meaning in this way and is probably not significant. The writers presumably label the verbs concerned as semi-modal or semi-auxiliary because they do not always have all the grammatical properties of modal auxiliary verbs. The normal use of the term *modal* applied to verbs is to identify a closed class of verbs defined by their particular grammatical properties (see section 2.1). As was mentioned in the Introduction, many main verbs have modal meaning, but are not referred to as modals or even semi-modals.

A second point to be made is that verbs included in the groups roughly equal to semi-modals vary in the literature. It must be noted, however, that although the lists presented in the following table may seem to differ greatly in some respects, several grammars use the marking *etc.* in their listing, enabling thus the inclusion of verbs other than those mentioned.

Table 1 below illustrates the different terminology used by Biber et al (1999), Downing & Locke (1992), Palmer (both 1979 and 1987 were studied in order to examine whether there were any differences to be found) and Quirk et al (1985). The simple hyphen indicates that the particular verb was not discussed at all, while the question mark shows that the verb was either mentioned or discussed to some extent, but no clear term

was used to classify the verb. The notes from (a) to (e) below clarify the contents of the

table.

Table 1. The terminology used on marginal cases of modals in four grammars.

	Biber et al	D & L	Palmer	Quirk et al
Ought (to)	Marginal auxiliary	Modal auxiliary	Modal (c)	Marginal modal
Need, dare	Marginal auxiliary (a)	Semi-modal	(d)	Marginal modal
Used to	Marginal auxiliary	. -	Marginal primary auxiliary	Marginal modal
Have to	Semi-modal	Lexical auxiliary	Semi-modal (1987)	Semi-auxiliary
(have) got to	Semi-modal	Lexical auxiliary	?	Modal idiom
(had) better	Semi-modal	Lexical auxiliary (modal idiom)	?	Modal idiom
Would rather/sooner	-	Lexical auxiliary (modal idiom)	?	Modal idiom
Is to	-	Lexical auxiliary	Modal (1979)	Modal idiom
Be able to	(b) -	Lexical auxiliary	Semi-modal	Semi-auxiliary
Be about to	-	"	-	Semi-auxiliary
Be bound to	-	"	Semi-modal	Semi-auxiliary
Be certain to	-	"	-	-
Be due to	-	"	-	-
Be going to	Semi-modal	"	Semi-modal	Semi-auxiliary
Be liable to	-	"	-	-
Be sure to	-	"	-	-
Be likely to	(b)	"	-	-
Be meant to	-	"	-	-
Be supposed to	Semi-modal	"	-	Semi-auxiliary
Be obliged to	(b)	-	-	Semi-auxiliary
Be willing to	(b)	-	Semi-modal	Semi-auxiliary

(a) In Biber et al, *need* and *dare* are classed as marginal auxiliaries with the *to* infinitives in brackets. This seems rather surprising, as *need to* and *dare to* are most commonly considered to be main verbs.

(b) In Biber et al (1999, 484), *be able to, be likely to, be obliged to and be willing to* are classed as 'relatively fixed expressions with meanings similar to the modal auxiliaries'. One member of this group is, rather surprisingly, *want to*, which is generally considered to belong to catenatives.

(c) In the case of Palmer, the number in the brackets indicates that the term was used in the particular edition. Where there is no year indicated, the term has been used in both editions.

(d) In *Modality and the English Modals* (1979), Palmer states that *need* and *dare* are "modals only with negation and interrogation" (p. 27).

3.2 Examples of Possible Groupings

3.2.1 Marginal Auxiliaries

Not all semi-modals are alike in terms of their grammatical and syntactic behaviour. Clearly apart from others seem to stand those verbs that can function as auxiliaries, albeit with certain restrictions. *Ought*, *dare, need* and *used to* all have the NICE Properties and the noncombinability of the modals. None of the four verbs have non-finite forms (and thus are always the first verbs in the verb phrase) nor *s*-forms. All except *used to* can be

followed by a bare infinitive, although *ought* is also most often followed by the *to* infinitive. As mentioned earlier, several grammars in fact label *ought* as one of the central modals. In addition to the ability to function both as an auxiliary and a main verb, the term marginal auxiliary or marginal modal (see Table 1 on p. 18) may perhaps also refer to the fact that in present day English *dare*, *need* and *used to* are more commonly used as main verbs than as auxiliaries, and *ought* is in general relatively rarely used (see for example Biber et al 1999, 489 (table 6.6)). This seems to be the case for Biber et al, who classify all four as marginal auxiliaries and mention in same context that the auxiliary constructions of these verbs are "extremely rare and largely confined to British English" (1999, 484).

A point that one might also consider is the TNP tests discussed in the previous chapter. It seems that at least according to the tense test, these verbs appear to act in auxiliary-like manner, for no double time marking seems to be possible. *Ought*, *need* and *dare* (when used as auxiliaries) do not have past tense forms, and *used to*, which only has the past tense form, cannot be combined with a past tense proposition: **We used to have driven to the countryside every weekend.*

The negation test also shows the verbs to be auxiliary-like in that double negation seems impossible, or at least highly unlikely (e.g.? We *oughtn't to not go there*). Lyons (1978, 801) gives an example *It needn't not be raining*, but concludes it to be hardly as natural as in the case of *can* (see p. 13f. for Lyon's discussion on double negation of *can* and relevant corpus examples).

Otherwise these verbs are not uniform in terms of negation. With *ought*, it seems to be always the proposition that is negated. This is also the case with the semantically

similar deontic *must* (The negative *mustn't* is used to indicate an obligation not perform

an act: *You mustn't be late for dinner*! (*I oblige you not to be late for dinner*)).

    'You really oughtn't to leave halfway through this session… (H8H 1317)
     (Cf. *I recommend you not to leave…*)

   With *dare*, *need* and *used to* this does not seem to be possible; with them it is always

the modality that is negated:

    'I daren't get on this bike,' the home-help said to Marie. (ACB 2010)
     (Cf. *I do not have the courage…*)

    You needn't worry anymore… (AT7 685)
     (Cf. *It is not necessary…*)

    She used not to be so censorious of others' behaviour (G15 735)
     (Cf. *She did not have the habit of…*)

   Further, the verbs also vary in terms of how they are passivized. *Ought*, *need* and

used to seem to be in general voice neutral:

    He ought to visit Aunt Jane.
  ≈ *Aunt Jane ought to be visited by him.*

    He needn't visit her.
  ≈ *She needn't be visited by him.*

    He used to visit her.
  ≈ *She used to be visited by her.*

However, voice neutrality does not apply to *dare*:

    I think he dare not visit her.
  ≠ *I think she dare not be visited by him.*

Dare is unlike *ought*, *need* and *used to* also in that whereas with the others there seems to be no restrictions on the choice of the subject, *dare* seems to be not as 'independent'. The following examples show *ought*, *need* and *used to* combined with inanimate subjects:

> *I wouldn't like to tell them anything that oughtn't to be widely known.* (G10 441)
>
> *...we all know the visits which have begun so successfully from friends and relatives, it needn't be Christmas, it could be at any time of the year, which are often ruined by people lingering on well past their sell-by date.* (HM4 134)
>
> *For some technical reason certiorari used not to be available in such cases...* (FE3 245)

Examples of *dare* with an inanimate subject are also to be found in the data, but, although the grammatical subject is inanimate, the 'real' subject seems to be an animate one, in the first example practitioners of theology, in the second one the car drivers (see more of this discussion in 2.1):

> *He also used to remind them that theology, even at its best and highest, was a human activity which could take no pride in itself, but only in its object; it dare not take itself too seriously...* (CL6 1198)
>
> *Cars daren't risk taking the short cut.* (K27 1411)

Summarizing what has been said in this section, the TNP tests as well as the fact that these verbs can function as auxiliaries (with certain limitations), suggest that the verbs are constituents of simple clauses. *Dare* deviates from the others in that it is not voice neutral or independent of the subject.

3.2.2 *Be* + Lexical Item + *to* Infinitive

Another significant subcategory of semi-modals might be the combinations of *be* +

lexical item + *to* infinitive. Relatively common examples of this category are for

example *be going to*, *be able to* and *be likely to*. This is an open class in the sense that

the boundary between these combinations and the combinations of *be* + adjective is not

clear in all cases. In general, the combinations of *be* + adjective can be split with for

instance a modifier like *very* (*He is very excited about his new job/ *He knows he is very

able to do it*) (See more on this in Downing and Locke 1992, 316).

   These expressions have the NICE Properties due to the fact that their first word is *be*.

However, all of them have *s*-forms (again, because of the different forms of *be*) as well

as non-finite forms. They can co-occur with modals as well as with other semi-modals:

   Downstream people must be willing to take risks based on their…(FAH 2111)

   The best the authorities may be able to do is persuade firms…(AHF 25)

   Eventually you're going to have to grind to a halt. (KS4 16)

   …she was not likely to be able to indulge a personal preference. (EVJ 65)

   Significantly, however, these expressions cannot be freely combined with each other.

This relates them to the modals in that whereas full verbs have very few restrictions on

the order in which they can appear (see Chapin 1973, 5f.), the modals cannot be

combined and must always occur as the first verb of a verb phrase. First, these

expressions cannot be repeated within the same clause. This can be seen in the following examples:

> *She tried to try to get the paper written.*
> **She was going to be going to finish it soon.*

Second, according to Chapin, although different expressions of *be* + lexical item + *to* infinitive can occur in combinations with each other, there seems to be only one admissible order in which they may occur. This appears to be the case even when another order would also be semantically plausible (see Chapin 1973, 4 (in addition to *be* + lexical item + *to* infinitive, his category of *quasi-modals* includes *have to* and *need to*)). If one chooses three verbs from this category, for example *be likely to, be going to* and *be able to*, and arranges them in combinations of two, there will be six theoretically possible combinations (3! = 6). However, of these, only one order for each pair is permissible:

> *She is likely to be able to run the marathon.*
> **She is able to be likely to run the marathon.*
>
> *She is going to be able to do it.*
> **She is able to be going to do it.*
>
> *She is likely to be going to do it.*
> ** She is going to be likely to do it.*

The data suggests Chapin's conclusion to be right in that only the first combinations of the above examples occurred (though no example of *be likely* + *be going* to was found) in the data:

> *…footballers fared little better than cricketers and were less likely to be able to pursue their occupation for as long.* (A6Y 235)

> *I thought I was going to be able to work in the shop full-time up…* (A6E 954)

In fact, combining all three verbs, only one order seems to be possible:

> *She is likely to be going to be able to run the marathon.*

We may also apply the TNP tests to this verbal category. With regard to negation, it seems that these expressions are auxiliary-like in that double negation does not seem possible. Examples like *She is not likely not to show up at the party* seem highly unlikely.

In terms of their negation in general, there is variation among these expressions. For example, with *be going to*, there seems to be a possibility of ambiguous interpretation. In *I'm not going to go to the party* the speaker may intend to not go to the party, or has no intention of going (semantically, in the first interpretation the proposition is negated, in the second, the modality). In the following examples, it might be suggested that the first is to be interpreted as a negation of the proposition in the way that the subject has 'an intention not to be taken for granted again', whereas the second one (although it is also possible to interpret as a prediction) may be understood as the subject having 'no intention on becoming like Boris Becker'.

> *But I'm not going to be taken for granted again.* (CEY 1432)

He's not going to be the next Boris Becker. (K1R 3151)

Be likely is simpler than *be going to* in that when it appears in a negative form, the negative always belongs semantically to the proposition:

…if I give you a list of telephone numbers you're not likely to remember them for long. (KLG 177)
(Cf. *…it is likely that you won't remember them for long…*)

His salary was not large, and not likely to increase…(CLJ 256)
(Cf. *…it was likely that his salary would not increase…*)

Further, *be able to* behaves like the semantically similar *can* in that when it is negated, the negative seems to always belong to *be able to* rather than the proposition:

Normally, one is not able to see stars in the sky that are…(FYX 1008)

Royal Ascot would otherwise not be able to go ahead next Tuesday… (K3P 21)

Most of the expressions discussed here are voice neutral. For example, *be going* (in the prediction sense) and *be likely to* seem in general to be voice neutral:

She is going to meet him.
≈ *He is going to be met by her.*

She is likely to meet him.
≈ *He is likely to be met by her.*

Other voice neutral expressions include for example *be about to*, *be bound to*, *be certain to*, *be due to*, *be liable to*, *be sure to*, *be meant to* and *be supposed to*:

She was	about to bound to certain to due to liable to sure to meant to supposed to	meet him.

He was	about to bound to certain to due to liable to sure to meant to supposed to	be met by her.

Be able to is not voice neutral:

  She is able to meet him.
 ≠ *He is able to be met by her.*

However, for example *be willing to* is semantically similar to the volitional sense of *will*. Neither of them is voice neutral (see p. 15 on this property of the 'volitional' *will*):

  She is willing to meet him.
 ≠ *He is willing to be met by her.*

  She won't meet him before he apologises.
 ≠ *He won't be met by her before he apologises.*

Be obliged to is not voice neutral either:

  She is obliged to meet him
 ≠ *He is obliged to be met by her.*

A property that makes these expressions semantically modal-like is that at least most of them are independent of the subject.

Be able to can occur with both animate and inanimate subjects (see also Palmer (1987, 121)):

> *I could see her working out how many jars she'd be able to carry...*(AHC 1846)

> *Later, the project was able to borrow a more advanced flux-gate...*(BMT 838)

Be about to can also have both types of subjects:

> *Are you about to retire or something?* (A0F 1834)

> *Now his running ambitions are about to be realised...* (HAW 148)

Several other expressions belonging to this group also seem to be independent of the subject. In the following examples the subject is inanimate:

> *...the change was 'bound to lead to more business...*(A9D 898)

> *...the sky is not going to drop on us as a result.* (CBC 12212)

> *Make sure that the fuselage is secure and is not liable to move.* (A0H 259)

> *There are some key terms that are sure to cause trouble...*(EDD 157)

> *Moreover, the use of gas is not likely to have much impact globally.* (AB6 610)

> *Well there are monitoring systems which are meant to be in place...*(HV0 298)

> *The torpedos, which carry no explosions, are supposed to stop before...* (A87 386)

> *...his book, Black Coffee Blues, is due to hit the shops in mid-December.* (CK6 61)

Exceptions include *willing to* and *obliged to*, which are usually not independent of the subject. A possible exception might be something like *The door just wasn't willing to open. Obliged to* seems to be similar to *dare* (see 3.2.1) in that although the grammatical subject may be inanimate, the actual subject referred needs to be animate.

Finally, one might note that it is possible to name at least two distinct sub-categories inside the group of *be* + lexical item + *to* infinitive. First, some of the expressions mentioned here can function as main verbs that are followed by a *that* clause (or, more precisely, *be* is then the main verb which is followed by some lexical item). These include *be likely to, be certain to and be sure to*:

> *It's likely / certain / sure that they have to change tactic in next game.*

This would suggest that they tend to be less modal-like in that they can function like full verbs with a subordinate clause. This issue will be discussed again in connection with *would rather* in 3.2.3.

In addition, in the case of *be likely* the use of a following *that* clause is restricted in the sense the sentence is always then extraposed (the grammatical subject is always an 'anticipatory' *it*) (see the definition of anticipatory *it* for example in Downing and Locke 1992, 35) like in the example above. *Be certain* and *be sure* allow other subjects as well:

> *… British privatisation experts are certain that the programme will be still-born.* (AAJ 267)
>
> *I was sure that I was not speeding…* (BMM 1149)

However, they are not entirely 'independent' of the subject when followed by a *that* clause in that only animate (most commonly human) subject seems possible here:

> *One Roman eating place, at least, is sure to fill the fans with wonder* (A5U 805)
> (Cf. **One Roman eating place is sure that it will fill the fans with wonder*).

Taking into account the nature of the meaning of *be likely* it seems plausible that it can only occur with an anticipatory *it*, in that as Perkins (1983, 77f.) states, the expression "is no doubt connected with the fact that likelihood is not a mental state like sureness and certainty [cf. *be sure that* and *be certain that*], but is empirically determined". One might also note that with the different forms of *be sure* and *be certain* (*to* infinitive versus *that* clause; animate subject versus anticipatory *it*) the meaning is not the same, as can be seen from the following examples:

> `*The only problem is that Bush is sure to win.'* (AE0 203)
> ≈ *The only problem is that it is sure that Bush will win.*
> ≠ *The only problem is that Bush is sure that he will win.*
>
> *As a close friend of the ANC president… he is certain to become a leading force in South African politics.* (A4X 234)
> ≈ *…it is certain that he will become leading force in South African politics.*
> ≠ *…he is certain that he will become a leading force in South African politics.*

A second distinction that could be made between the expressions belonging to the *be* +lexical item + *to* infinitive group is that the 'lexical items', the component parts of these expressions seem to have different statuses in terms of how they add to the meaning of the expression. For example, Biber et al (1999, 484) separate a class of "fixed expressions" that "differ from other semi-modals…in that the component parts

contribute independently to the overall meaning of the phrase", and include in this class *want to* (see comment in note (b) on p. 19), *be able to*, *be obliged to*, *be likely to* and *be willing to*.

The same view is presumably what Joos (1964, 21) takes when he argues that "they [modals] have purely privative meanings, quasi-auxiliaries are additive too". Joos does not define exactly what verbs he regards as quasi-auxiliaries, but they are most likely a group roughly equal to what are considered as semi-modals in this study. This would suggest verbs like those defined by Biber et al to be less 'modal-like' than other expressions of *be* + lexical item + *to* infinitive group. Further, in his discussion on *be likely*, *be sure* and *be certain*, Perkins concludes that "the individuating properties of each expression are in large part due to the nature of lexical items *sure*, *certain* and *likely*" (1983, 77).

However, defining a subcategory on the grounds of the semantic contribution of the component may be a question of degree rather than an absolute distinction, and it will not be dealt here in further detail.

To conclude what has been discussed in this section, the grammatical status of the *be* + lexical item + *to* infinitive group is problematic in more than one sense. First, in the case of *be likely*, *be certain* and *be sure*, further study needs to be done on the question of whether they should be considered as lexical verbs rather than semi-modals. Second, the question of the meanings of the semi-modals also requires further thought since it appears that the middle parts, the 'lexical items' are in some cases quite empty of meaning, whereas in others they contribute to the meaning of the whole verb phrase.

3.2.3 Idiomatic Phrases: *have got to*, *had better* (*'d better)* and *would rather* (*sooner*).

These phrases seem to behave more modal-like than the previous category in many

respects. First, they do not have non-finite forms, and *would rather* (*sooner*) and *had*

better have no *s*-forms and are followed by bare infinitives. Also, they all possess many

of the NICE properties:

Negation: *You haven't got to go if you don't want to.*
You'd better not go. /You hadn't better go.
Wouldn't you rather go?

Inversion: *Have we got to go already?*
Hadn't we better go before it's dark?
Wouldn't you rather stay here?

Code: *You've got to go and so have the others.*
You'd better stay here and so had the others.
I'd rather go and so would my friend.

Emphasis: A: *You haven't got to go, surely.*
B: *You're wrong. I háve got to.*
I'll do the dishes when I come home. - You'd bétter!

According to Palmer (1979, 148), syntactically *would rather* may be analysed as a

form of *will*. However, Palmer excludes the fact that *would rather* has also the capability

to function as a full verb. For example, Quereda (1997, 226) regards *would rather* as a

catenative (Note that Quereda's view on catenatives is different from the one adopted in

this paper (see footnote 1 on p. 2)) and argues that

In contrast with *had better*, *would rather* can have independent existence as a full
verb phrase in the idiomatic use where it is complemented by a clause formed by a
subjective subject and a remote VP [verb phrase](Cf. May I go with her? I'd rather
you didn't).

Have got to is recognised by several grammars as a form of *have to*. However, *have got to* has no non-finite forms (unlike *have to*). Unlike the other idioms it has both present and past tenses (*had got to*), although the use of *had got to* is limited to indirect speech (Coates 1983, 57).

Since none of the idiomatic phrases have non-finite forms, they all occur only as the first verb in the clause. This property suggests them to be more modal-like than the *be +* lexical item group in that *had better*, *would rather* (*sooner*) *and have got to* cannot be combined with modals.

Turning now to the TNP tests, the tense test is problematic in that *had better* and *would rather* are formally past tense. *Had better* can even be combined with a proposition that is in the past tense: *You'd better have done your homework when I come home*. It will be assumed that they can be interpreted like the example given on p. 11 (*You should have come to the party*) in that since they semantically refer to the present tense, they are not to be seen as past tense markers. With *have got to*, double marking of past tense does not seem likely; this is suggested even by its limited use in the past tense.

Further, it seems that when these idiomatic expressions are constituents of a verb phrase, the verb phrase can be negated only once (examples like You *haven't got to not do it* seem not acceptable, and it is hard to find a context where this kind of construction would make sense semantically).

However, the 'normal' negation of the idiomatic expressions varies from verb to verb: The negative forms of *had better* (*had better not* and *hadn't better*) seem to always negate the proposition, as in

We found the village easily enough, though anyone travelling in the area in a Porsche had better not blink. (HW8 381)

He hadn't better get in my way when I'm going down there I'll string him, I'll make a bastard out of it. (KCP 908)

However, *would rather* has two types of negation. According to Palmer (1979, 148), whereas with *would rather not* the proposition is negated, with *wouldn't rather* the modality is being negated. According to the examples in the BNC, it appears that *would rather not* certainly negates the proposition, as in the following examples:

`*I find that nowadays I would much rather not read about criminals.* (CA6 1600)

The president, Corazon Aquino, is a cousin and no doubt would rather not be. (ABJ 1151)

However distinguished grey hair makes a man look, most of them would rather not have it. (C9P 823)

One might think that *wouldn't rather* and *would not rather* would be similar in terms of their negation, but this is not necessarily the case. Whereas *wouldn't rather* appears to behave according to what was stated by Palmer (the modality is being negated), *would not rather* seems to be more ambiguous. In the following examples it seems that the negation is connected to the modality:

Who would not rather own to theft and deception within the Church's writ, rather than put his neck into the sheriff's noose for murder? (G0M 936)
(Cf. *Who wouldn't prefer if one could own to theft and deception within the Church's writ…* But: **Who would prefer not to…*)

Sure you wouldn't rather we ate here? (CEB 3073)
(Cf. *Sure you wouldn't prefer eating here?* But: **Sure you would prefer not eating here?*)

However, it may be suggested that in some cases of *wouldn't rather* either the modality or the proposition is negated, as in

> *Do you think they wouldn't rather have known the truth than believe you'd grown too selfish to care?* (H9V 2316)
> (Cf. *Do you think they wouldn't have preferred to know the truth…/ Do you think they would have preferred not to have known the truth…*)

With *Have got to*, the negation usually belongs semantically to *have got to*, as in this example:

> *Cos you've got no playschool tomorrow so you haven't got to get up early have you?* (KD1 606)

Interestingly though, Palmer (1987, 130) gives an example of *have (got) to* in which the negative can be understood to belong either to the semi-modal or the proposition:

> *You haven't (got) to play around in here.*

Further, while *have got to* seems to be voice neutral, *had better* is not:

> *You've got to visit Aunt Jane more often.*
> ≈ *Aunt Jane has got to be visited by you more often.*

> *She'd better visit the dean soon.*
> ≈ *The dean had better be visited by her soon.*

Would rather (*sooner*), semantically somewhat alike *be willing to* (see p. 3.2.2) and the 'volitional' *will* (see p. 15), is not voice neutral:

She'd rather not meet him in this crowded café.
≠ He'd rather not be met by her in this crowded café.

Would rather (*sooner*) stands apart from the other idioms also in that it is not independent of the subject. This is suggested also by the data; although several examples of *had better* and *have got to* combined with inanimate subjects were to be found (although admittedly the 'real' subject is in both examples apparently animate), there were no such examples of *would rather*:

So any knife you might have in your hand had better be put back in its sheath!'
(H9C 3573)

But the guy said well ninety percent of this has got to be spent on... (KBK 767)

To summarise what has been discussed of the syntactic properties of the idiomatic phrases, it could be concluded that this group is in general more 'modal-like' than the *be* + lexical item group. This is mainly on the grounds that the idiomatic expressions have no non-finite forms and therefore cannot be combined with other modals. It was also noticed that the idiomatic expressions show some variance in terms of the TNP tests (as did the marginal auxiliaries and *be* + lexical item group as well). Therefore, having applied these tests so far on three different groups of verbs, it seems that they cannot be much help in the attempt of determining whether semi-modals are constituents of simple or complex verb phrases.

3.2.4 *Is to*

Is to, like the verbs discussed in 3.2.2 (*be* + lexical item + *to* infinitive) has all the properties of an auxiliary:

> Negation: *You aren't to put your nose in other people's business.*
>
> Inversion: *Weren't we to do the exam in this room?*
>
> Code: *You're to attend the family gathering and so are both of your brothers.*
>
> Emphasis: *I wasn't to do all this cleaning up! – Yes, you wére.*

It also has all the properties of a modal except that it has different forms for different persons (*I am to, you/we/they are to, he/she is to, I/he/she was to, we/*you/*they were to*). Unlike the main verb and primary auxiliary *be*, it does not have the non-finite forms *(be, been, being /*be to, *been to, *being to*). Therefore it occurs only as the first verb of the verb phrase.

Turning now to the TNP tests, it seems that in a verb phrase with *is to* + infinitive, both constituents may be in the past tense. This can be seen in examples like the following:

> *The children, many of them orphans, were to have spent Christmas with 60 foster families in Wigan and Leeds*. (CBF 13480)

This would indeed seem to be an example of Palmer's 'double marking' for tense and would suggest *is to* to be a constituent of a complex rather than a simple clause.

Yet, in terms of negation *is to* appears to behave like a simple clause constituent, for only one negation seems likely*: ?You're not to not go there!*

In general, negation is complex with *is to* in that semantically either the modality or the proposition may be negated. Where *is to* has the sense of Planned future (see 4.1.1) or Destiny (see 4.1.2), it seems that the proposition is negated:

> *But if we are not to be led into false beliefs…* (KS3 71)
>
> *But I wasn't to find that out for a while yet.* (ECX 1474)

However, when used in the sense of Instruction/ Command (see 4.1.4) or Possibility (4.1.3), the modality is negated instead:

> *'But the colonel said I wasn't to leave you here to brood.'* (H9V 1320)
>
> *they'd turn out the family, look everywhere and he was not to be found.* (G09 26)

Is to seems to be in general voice neutral:

> *The Prime Minister is to meet the representatives of the trade unions.*
> ≈ *The representatives of the trade unions are to be met by the Prime Minister today.*

Is to is modal-like also in that it seems in general to be independent of the subject. The following examples show *is to* with inanimate subjects:

> *Huge amounts of computerised information held in Soviet data bases are to be made available for the first time to Western research…* (A5M 276)
>
> *Their festivals were to be a commemoration of God's acts…*(C8V 981)

To conclude, 'formally' *is to* appears to be the most modal-like of the semi-modals studied so far. However, the TNP tests proved problematic again in that although the negation and passivization tests suggest *is to* to be a constituent of a simple clause, the ability to have double tense marking would imply it to belong rather to a complex clause.

3.2.5 *Have to*

In her discussion on *have to*, Coates (1983, 54) states that "*have to*, unlike *have got to*, has none of the …criterial properties which define a modal". In addition to the NICE Properties, Coates includes in her criteria the same properties that were mentioned in 2.1 (see p. 6f): a modal has no *s*-form, no non-finite forms and does not co-occur with (other) modals. Therefore, *have to* can occur in combinations with other modals and semi-modals:

> *… many of the problems which older people face and the changes which they may have to cope with.* (A10 300)

> *The heavens had really opened now and he was going to have to walk home.* (A1C 218)

However, *have to*, like the main verb *have*, may have the NICE Properties:

Negation: *We haven't to stay unless we want to.*

Inversion: *Hasn't he to be at school by nine?*

Code: *You have to be there and so does your friend.*

Emphasis: *I can't write any faster. – You'd better try. The speech hás to be ready tonight.*

Nevertheless, most often *have to* is used with *do*, and this is presumably why the possibility of the NICE properties does not occur in Coates's discussion and no examples of the auxiliary use was to be found in the BNC Corpus. Modifying the above examples we get:

> *We don't have to go unless we want to.*
> *Doesn't he have to be at school by nine?*
> *You have to be there and so does you friend.*
> *I can't write any faster. - You'd better try. The speech dóes have to be ready tonight.*

Turning now to the TNP tests, *have to*, like *is to*, can occur in verb phrases where both *have to* and the following verb is in the past tense like in the following example:

> *To be forty she'd have had to have been born in the nineteen seventies.* (KDL 1260)

However, it seems highly unlikely to have both in the negative form: *? You don't have to not go there*.

In general, *have to* is negated in a similar way as the other obligation/necessity verbs studied so far: The negation belongs semantically to *have to*, not the proposition (although see Palmer's example on *have (got) to* in 3.2.3):

> *Some solutions rely on structural changes for effect, but these don't always have to involve vast expense.* (HGW 1161)

 A modal-like property of *have to* is that it is voice-neutral, although not frequently used in the passive (Palmer 1987, 131; Palmer 1979, 77):

She has to meet him.
≈ *He has to be met by him.*

Another modal-like property of *have to* is that it can be used with both animate and inanimate subjects. The following examples illustrate the use of *have to* with inanimate subjects:

We've always believed that the market has to be regulated (A5K 48)

As in my landscapes, I work quickly and the portrait has to be completed in one sitting. (E9W 139)

It doesn't have to be draughts or anything. (KLT 673)

3.3 Semi-modals in relation to each other

After studying the syntactic qualities of different groups of the semi-modals, it might be interesting to see how the groups relate to each other. The following picture illustrates a continuum the extreme ends of which are lexical verbs and modals. The positioning of the different groups is explained in the notes (a) – (f) below. The picture is admittedly impressionistic in that the relative distances are naturally not to be measured. The positioning of each group was settled on the grounds of three main criteria: The NICE Properties, the special criteria for modals, and whether the verb could be considered as independent of the subject[3]. The vertical position of each group is not relevant.

---

[3] Considering that the TNP tests proved not very conclusive, the question of whether the verbs are constituents of simple or complex phrases was excluded here.

| Modals | CONTINUUM | Lexical Verbs |

(a) *ought, is to*   (c) *had better, have got to*   (f) *have to*

(b) *dare*   (e) *be likely*
  need   (d) *be* + lexical item + *to* infinitive   *be certain*
  used to   *be sure*
                                                                         would rather

Figure 2. Semi-modals in relation to each other

(a) *Ought* and *is to* are illustrated as closest to 'true' modals, their only discrepancies being that *ought* is in most cases followed by the *to* infinitive, and *is to* has different forms for different persons.

(b) As noted in 3.2.1, the fact that *dare*, *need* and *used to* can be used as 'true' modals in limited contexts suggests their position to be on the marginal area of modals. *Dare* was noted to be different from the others in that it is not voice neutral or independent of the subject.

(c) The idioms are similar to modals in that the expressions have no non-finite forms and therefore they always occur as the first verb of the verb phrase. It was noted that *would rather* is not voice neutral nor independent of the subject.

(d) Unlike the idioms, the expressions of the type *be* + lexical item + *to* infinitive have non-finite forms and can therefore occur in combinations with modals. It was noted that there are limitations on the order in which these expressions can occur in combinations with each other. It was also noted that the expressions can be divided into subgroups in terms of at least two criteria: First, some of the expressions can function as main verbs as

well (see (e)), and second, some of the 'lexical items' carry more meaning relevant to the meaning of the whole expression than others.

(e) These expressions are illustrated as more like lexical verbs than the previous group owing to the fact that they can function as main verbs (more precisely, they are combinations of the main verb *be* or *would* + an adjective) that take a subordinate *that* clause. However, they have the NICE properties even when used as main verbs and are therefore placed to the left of *have to*.

(f) Although semantically modal, *have to* is seen here as most like lexical verbs in that it is normally always used with the *do* support rather than as an auxiliary.

4 Corpus Findings on *is to*

This section will present a corpus study carried out on the verb *is to*, introducing the possible uses of the verb and its correspondences with other modals. In section 5, after a short introduction on the history of the semi-modals in general, some examples of *is to* in 18th century English will be presented and discussed. One could argue that a detailed discussion on *is to* serves no purpose since it is not a prototypical case of the semi-modals, but rather lies on the other extreme of this verbal class (see the diagram on p. 42). From another viewpoint, it could also be argued that a close study on one of the semi-modals is doomed to fail in any case since any conclusions that may result from this kind of study cannot be generalised to cover all other semi-modals. Acknowledging the fact that the semi-modals do not behave as a consistent unit on semantic or syntactic grounds, it will be assumed throughout the study that the patterns of behaviour linked with *is to* are not applicable to other semi-modals.

With regard to the question on the choice of the particular verb, two main reasons for justifying the choice of *is to* may be given here. First, it was recognised in last section as the most modal-like of the semi-modals, and placed in juxtaposition with *ought*, and it is thus seen to have relevance as an individual verb. Second, being versatile in both form and function *is to* was the verb that originally raised my interest towards semi-modals in general.

As the general syntactic properties of *is to* were stated already in 3.2.4, this section will concentrate on the semantic properties of the verb. Modality is a question of both syntactic and semantic properties, and so would semi-modality seem to be.

The central concepts of modality are commonly recognised to be possibility and necessity; this assumption will here be accepted as given (for the relation between possibility and necessity see for example Lyons 1978, 787). *Is to*, as it will be seen, can have both of these modal senses.

Before proceeding to the corpus examples of *is to*, there are two additional points concerning the semantics of modals versus semi-modals one might like to note. First, an important question is that of whether the central modals and semi-modals differ in terms of subjectivity and objectivity. In his discussion on epistemic modals, Lyons (1978, 805ff.) mentions that although it is possible to use the central modals to describe objective epistemic modality, it is "much more natural" (p. 806) for them to be used in subjective epistemic sense.

From another viewpoint, in his book *Modal Expressions in English* (1983), Perkins concludes that all modal expressions with *be* are objective in nature. To clarify the argument, we may examine two of Perkins's examples (1983, 67):

> *He may be mad.*
> *It is possible that he's mad.*

Whereas the first example with *may* is subjective epistemic in that it is related to the speaker's knowledge of the matters, the second example with *be possible that* is objective in the sense that it states that a possibility exists (to use Perkins's terms, the possibility is *categorically asserted*).

Most senses of *is to* can clearly be identified as objective: In the sense of Planned future (see 4.1.1), Destiny (4.1.2) and Possibility (4.1.3), the events occur due to some conscious organising. However, *is to* can also have a deontic sense (see 4.1.4 Instructions and

Commands). A question that requires further study and cannot be answered here is what makes this sense of *is to* objective as opposed to for example the deontic *must* that seems to always be subjective (see more of the subjectivity of *must* in for example Coates 1983, 55).

Second point to be considered before presenting the corpus study relates to the actuality implied by modals and semi-modals, i.e. whether they imply that the event actually took place or not. There are several cases where a 'true' modal cannot be used if there is any indication of actuality and only a single event is referred to. Where actuality is implied, semi-modals are used instead. These cases include for example *could* (also in many cases *can*)*, would* (in the volitional sense) and *must* (more on actuality of the modals, see for example Palmer 1979, 163f.). This, like the problem of objectivity versus subjectivity discussed above, would suggest that the differences between modals and semi-modals are not only grammatical but also semantical (Palmer 1979, 164). As regards the senses of *is to* that can be seen to overlap with *could*, *can* and *must* mentioned above, further study, again, is required before any conclusions can be made, but it would seem that actuality is mostly not indicated in these senses of *is to*.

In the literature, *is to* is often recognised as an expression that has future indication. As discussed above, *be* according to Perkins has the status of asserting the modality, whereas *to* can be understood as deriving from "its original use as a preposition to express 'a spatial or local relation' or 'motion directed towards and reaching' (Shorter OED: 2315)" (Perkins 1983, 67). Perkins combines these meanings in order to derive a literal meaning for *is to*:

> Literally, *is to* states that circumstances which currently exist are disposed towards the occurrence of an event which is as yet unrealised. (Perkins 1983, 67)

Turning now to more down-to-earth definitions of the verb, the Oxford English

Dictionary surprisingly does not have a separate entry for *is to*. It occurs in a few

examples under *be*; for example under sense 2 ("To come into existence, come about,

happen, occur, take place, be acted or done") the following example is given: *When is the*

wedding to be? However, the OED has one sense of *be* which appears to include only

examples of *be + to* (the examples cited are the most modern ones):

> With a dative infinitive, making a future of appointment or arrangement; hence of
> necessity, obligation, or duty; in which sense *have* is now commonly substituted.
>
> a. with *infinitive active. Obs.*
> Had he been to chuse between any punishment…and the necessity (1814, Scott
> *Wav.* I. v. 55)
>
> b. Hence, *to be to seek*: to have to seek, to be obliged to seek, to be in want or at a
> loss. *Obs.*
> It was excusable that a man having passed so large a portion of those sixty years
> in a compting house, could be somewhat to seek in the economy of his social
> system. (1832, *Fair of May Fair* III. ii. 278)
>
> c. with *infinitive passive.*
> Normandy was to be invaded on each side. (1869, Freeman *Norm. Conq.* III. xii.
> 145)
> > (sense 16 of *be*)

Further, under sense 17 it is added, "The same construction [as 16] is used of 'to be

proper or fit (to)'", and the following examples of Present Day English are given:

> *Is this house to let?*
> *They are not to compare with these.*

This construction is stated to be possible with both infinitive passive and infinitive

active (counted as archaic).

In addition, the past form *were to* occurs as an example under sense 18, which is as follows: "The past subjunctive *were* with the infinitive makes an emphatically hypothetical condition: cf. the degrees of uncertainty in *If I went*, *If I should go*, *If I were to go*".

Although keeping in mind the definition given in the OED, the corpus study presented in this paper will use as a basis another definition of *is to*; namely that of Palmer's (1979, 146f; 1987, 160f.). Accordingly, this paper has adopted his treatment of the verb as *is to* rather than *be to* (which is the term used in for example Downing and Locke 1992, 316; Joos 1964, 22 and Quirk et al 1985, 137). Palmer's naming of the verb is coherent with the fact that since in Present Day English, there are no non-finite forms like **be to* or **to be to,* it seems more reasonable to name the verb according to a form that exists.

Palmer presents four main uses for *is to*; the first two he considers "essentially temporal", and the other two "essentially modal" (1987, 160-161). The uses can be summarised in the following way according to their possible tenses:

Table 2. The meanings of *is to* according to Palmer, and their possible tenses

Tense	Planned future	Destiny	Possibility	Instruction/ Command
Present	x	(x)	x	x
Past	x	x	x	[4]

---

[4] Palmer does not mention the possibility of (free) indirect speech, which came up in the corpus study in connection with the instructive meaning.

4.1 The Meanings of *is to*

4.1.1 Planned Future

The first use of *is to* can be both present and past tense. It refers to future events that are planned or part of an arrangement. When used in the past tense, it refers to actions that were planned to take place at a later moment. A few examples taken from the corpus data clarify the first use:

> *All the winning dishes are to be featured in a British menu* (AOC 1196)
>
> *The Sara Lee Masters is to be played at the Lakes G.C., Sidney…* (HJG 1716)
>
> *I'm to be governess to a little boy in Edinburgh.* (BMU 627)

Significantly, when the past tense is used, there is no indication whether the actions (events) eventually took place (see also Palmer 1987, 161 for similar note). This can be seen in the following example, for, although the tense is past, there is no indication of whether the speaker eventually *was* the best man:

> *I was most anxious to get home: I was to be the best man at a wedding that day…*
> (J56 451)

Further, in the cases where the past tense of *is to* is followed by the perfect infinitive, the result is no longer ambiguous, for the speaker now knows that the planned event did not materialise:

> *MARK Farmer is facing a delayed start to his season because the Kawasaki*
> *which he was to have ridden for a Malaysian team last Sunday is not yet ready.*
> (HJ3 5684)

She was to have worn a diamond tiara. (FPH 2396)

Probably all three of them were away from court at the time of the murder: Waddo was certainly in the retinue of Chilperic's daughter Rigunth, who was en route for Spain, where she was to have been married. (HY0 1623)

In the corpus examples, it is not always evident whether *is to* refers to the subject's own decision made on future events or someone else's decision that the subject is acquiescing to. In the case of future events that are considered as advice coming from outside, it seems to be possible to treat the verb as part of free indirect speech, and thus it would belong to the fourth, Instruction/Command use that will be discussed in 4.1.4.

If clauses. In the corpus data the first use proved very common in *if* clauses, the meaning being then roughly 'if somebody intends/intended to', like in the following examples:

And to us if we are to understand him in anything more than a superficial way. (AOP 300)

French local history cannot be ignored if one is to explain the ebb and flow of events… (EBP 770)

A relatively common use of these *if* clauses seems to be the subjunctive (or: necessary condition (for example Jespersen 1962, 337)). This hypothetical use of *is to* is recognised by for example Quirk et al, according to whom "the subjunctive *were to* expresses hypothetical meaning (1985, 143), and is "used in formal contexts with an overtone of tentativeness" (1985, 1093). Furthermore, Quirk et al compare the subjunctive *were to* with *should* followed by an infinitive with the following example:

If a serious crisis should arise, the public would have to be informed of its full implications. (Quirk et al 1985, 1093)
(Cf. *Were a serious crisis to arise…*)

The tense difference of for example the following examples is seen when the predicates of the matrix clauses are compared; in the first example (normal past tense), the matrix clause is in the past tense, whereas in the second example (subjunctive), the tense of the matrix clause is present:

> *A new approach to central are redevelopment was implied if the argument was accepted, that if we were to have any chance of living with the car, then a different type of city was needed.* (G05 1522)

> *If we were to start on a building of such magnitude – which we have not yet attempted – it is easy to imagine the army of architects and engineers, the volumes of plans, the batteries of computers, the regiments of construction machinery we would require.* (F9F 2011)

4.1.2 Destiny

The second use is, according to Palmer (1987, 161), only relevant with the past tense. This proved true also in my own data. The second use refers to statements made about the future that cannot be planned, and cannot be affected (thus the label Destiny given in this paper). Two kinds of examples of this use were relatively common in the data: First, the phrase *it was/was not/wasn't to be* (or slightly modified, as in the example *...a good time wasn't to be* (ABS 114)), and second, statements referring to a development in history that the contemporary people had no idea of, but can be now 'safely' commentated. A few examples from the corpus data may clarify this 'historical' use:

> *Embryology proper really began a century later with Aristotle defining a basic question which was to dominate the field until the end of the nineteenth century.* (ASL 27)

> *...a `professionalizing' school preparing its better students for the more dignified occupations, rather than for higher education (a development that was not to be fully realized until after 1945 and the expansion of the universities).* (ARC 478)

> *Something of an antiquarian, Goddard collected a great deal of (chiefly) Norfolk documents upon which later historians were to draw…* (GT4 1119)

> *Harry Fry, John Ross and Jimmy Rutherford, ordinary Scots who went off to fight for a cause in Spain and who were not to return.* (K5L 2020)

Some of the examples in the data are ambiguous in that they may be understood both as consciously planned events (see 4.1.1 on Planned future sense of *is to*) or events that occur due to some omnipotent force or destiny (the Destiny sense of *is to*). The problem of ambiguity may occur in for instance something like the following example:

> *We were to have an even closer encounter with a bear before we left Edgeøya, when we went ashore at the south end of the island at Andre/1e Tangen.* (CRJ 1048)

The reader presumably intuitively interprets *is to* here as having the sense of Destiny, and the subject as not being able to influence the future event in any way, but this is not necessarily so. Considering that the source of this corpus example is a book called *Migrations: travels of a naturalist* (Bobby Tulloch, 1991), *is to* may here also suggest the subject's plan to encounter a bear. It may even be possible (although in this case not very likely) that the subject is only following instructions (see 4.1.4 Instruction/ Command sense of *is to*), in which case the sentence could be paraphrased as something like the following: *We were supposed to have an even closer encounter with a bear…* As mentioned earlier in 2.2, here again, one encounters the problem of limited context in corpus examples.

The time indicated by the Destiny sense of *is to* is what Jespersen (1962) calls *after-past*: A point in time "between 'then' and now" (Jespersen 1962, 291). His example *This I was only to find out afterwards* suggests that the 'historical' use is not necessarily connected to a very distant point in history.

There also appears to be the possibility for the Destiny sense to be used in the present tense, for example a fortune-teller whose 'predictions' are not considered to be his/her own, but rather as something brought by destiny: *You are to marry a tall, handsome man*. Quereda (1997, 215) discusses the ambiguity of *is to* using the following example: *You are to marry him within the next six months*. According to him, "if the context of this sentence is that of a father to her pregnant daughter, it would definitely be understood as a severe order which cannot be avoided…"(1997, 215) (on the Instruction/Command sense of *is to*, see section 4.1.4). However, he continues by stating that "if the context is that of a fortune-teller to a girl wishing to get married to her Prince charming, the sentence would be understood as a prediction…" (1997, 215f.); in other words, it would be a question of her destiny.

4.1.3 Possibility

The third use of *is to* refers to, as Palmer expresses it, "what is reasonable, or possible" (1987, 161). This use is found in both present and past tenses, but in my data only a few examples of this use occurred in either tense, and most of the examples were followed by *be found*:

As figure 4.3 shows, in 1984, 41.5 per cent of fulltime women workers were to be found in clerical employment… (F9S 156)

In winter, too, that elegant bird, the avocet, is to be found on the mud flats of the Exe…(F9H 299)

Other challenges to social researchers to pursue a form of participant observation are to be occasionally found in the journals: (AOK 558)

Only other verbs that appeared to connect with *is to* in this sense were *be seen* and *be expected*, as in

…with cooling louvres on the front of the cowling which are a distinctive feature of all Yak-18s and are also to be seen on several other Yak types… (CLU 1094)

…the day of their return (only they were not to be expected until the late evening) (APM 2413)

According to Palmer, in this use, in contrast with the other uses of *is to*, it seems that it is the modality that is being negated (instead of the proposition or the future event) " to mean 'it cannot reasonably be'"(1987, 161). This was confirmed also by the corpus examples, as can be seen from the following:

`in our pluralistic society it is not to be expected that any one set of principles can be enunciated to be completely accepted by everyone.'* (EB2 901)

However, in practice often the micros are not to be found near the chalkface… (H88 1581)

I had a strong feeling that our pet wasn't to be found here. (ACM 983)

4.1.4 Instructions and Commands

The fourth use of *is to* relates to giving instructions and commands. Palmer mentions only the present tense as being relevant to this use (1987, 161), but, as seen in the last two examples below, it can also be identified in the past tense in connection with (free) indirect speech, and, in fact, the past tense use proved to be relatively common in the data:

> *You're to sit there, do you hear?' he instructed.* (EEW 1273)
>
> *In fact, Kaprun and its neighbour Zell am See have everything that you could need to enjoy a perfect holiday… including some excellent bars and restaurants for relaxing evenings and charming coffee houses for afternoon coffee and cake; an experience that is not to be missed!* (AMD 1755)
>
> *`And one of the conditions of her bail was that she wasn't to go anywhere near Times Square until her case went to court,' Carmen said.* (EF1 2733)
>
> *The doctor said he wasn't to be excited.* (AJ7 1256)

An ambiguous phrase that came up frequently in the data was *'s/is/'re/are/wasn't/ weren't to know* (only the contracted forms came up in the data) as in *She wasn't to know*. In most cases the phrase can be interpreted as (1) 'she could not be expected to know' (and thus functions as a polite reply in for example a situation where someone is asking for forgiveness), but some contexts suggest that interpretations might well be also something like (2) 'nobody was supposed to tell her', or even, (3) 'she never got to know about it' (she died before anybody had the chance to tell her). The first example below probably refers to the first interpretation, while the second can be either the first or second type. The third and fourth examples are also ambiguous: All interpretations seem

possible. However, although all three senses mentioned seem possible, admittedly the first sense (she could not have expected to know) appeared to be the most plausible interpretation for most of the examples of the *wasn't to know* type.

> *You weren't to know, but the boy's simple.* (AC4 1185)

> *'You weren't to know this would happen,' she cried.* (HH1 5685)

> *She wasn't to know that he'd been posted to Berlin.* (FPX 2915)

> *He wasn't to know the truth, and yet, against all reason, she wanted him to believe in her innocence.* (HH1 1644)

Significantly, almost one third (31,6 %) of the examples of this sense were in the passive, and although the passive examples varied from mere instructions to practically orders, they all seemed to share a certain polite/formal sense:

> *'His Majesty's mails are not to be interfered with.* (A0D 618)

> *...we take them as confirming evidence that we are justified in following Bolinger and recognizing that certain adjectives qualify another property, qua property, and are not to be assigned, independently, to any entity present in or assumed by the structure of the sentence in which they appear.* (HPY 766)

> *By law no preparations are to be made in anticipation of death, apart from allowing the loved ones due access, and the positioning of candles --* (A0P 428)

> *Suppose, however, that there were no such consent -- in, for example, a shop where goods on display were to be taken from the shelves only by the attendant.* (FE2 475)

> *The court said that because the articles showed that the auditors were not to be called in until the parties showed they were in disagreement, the auditors were to act as arbitrators.* (J6Y 1921)

> *If I'm not to be allowed Mozart, why not somebody with an appropriate gloom quotient like Mahler?* (H86 1466)

> *'I have a feeling,'* said Lydia, *'and my feelings are not to be lightly disregarded.'*
> (G0X 1576)

One reason for the high frequency of the passives in the instruction use is the phrase *am/is/are* (*not*) *to blame*: The phrase proved to be so common that excluding it from the passive commands reduced the percentage of the passives to 24,6 %. As *to blame* also showed grammatical behaviour different to some extent from the other forms of *is to*, it is identified in this paper as a separate entity, and is discussed more in detail in the following section.

4.1.5 *To blame*

As already mentioned the phrase *to blame* came up frequently in the data. Around half of the subjects in the phrases were inanimate, and there did not appear to be any clear pattern between the animate subjects:

> *The goalkeeper is always to blame and always will be.* (B1L 1108)
>
> *Wherever it is, who's to blame?* (CGE 42)
>
> *I don't consider I'm to blame for anything that has happened since you came into this house.* (HWE 435)
>
> *They said then it was connected with the accident, erm because it, you know, she was in such a bad way, and, the other fellow was to blame, I think he'd been drinking...* (KD8 6555)

Crime and evil must be to blame -- not the drunk stage manager, the amnesiac hams or the brain-damaged libretto of their current production Black Wednesday. [5] (K59 3312)

There are negative images of celibacy of course, and the Christian Churches are as much to blame for propagating these as anyone else. (ACL 1403)

To blame is actually a very marginal case of both the passive as well as the Instruction/Command use, and it seems possible to argue that it is an idiom and does not belong to the semi-modal *is to*. In *The English Verb* (1987, 161), Palmer states that the phrase needs to be interpreted in the passive as *somebody is to be blamed*. On the other hand, in his earlier version of the book, *Modals and Modality* (1979, 155), he argues that the meaning is somewhat different between the two phrases. His examples are:

He is to blame.
He is to be blamed.

In connection with these, Palmer (1979) also mentions the phrase *The house is to let*, which, according to him, can be compared with *The house is to be let*, although, again, with some difference in meaning. The phrase *is to let* did not come up in my data, and there were only two occurrences of *is to be blamed*. However, comparing the examples of *is to be blamed* and *is to blame*, it seems that in some cases the two can replace each other, like for instance in the following, where both seem to have the meaning of "is responsible for":

Poor productivity, according to the DTI, is to be blamed partly on bad management of the workforce and partly on lack of investment (which is bad management in another form). (CF8 345)

---

[5] This example is worth noting also in the sense that it combines *is to* with another, full modal, *must*, which suggests that *is to* can in fact be interpreted here as a full verb.

But it is not just farming methods which are to blame. (BN4 1945)

However, in the following example it seems that *is to blame* is not a likely alternative, in that here *is to be blamed* seems to have more the sense of "should be blamed" or a milder "should be criticised". This suggests that *is to blame* can indeed be seen as an idiom: the sense does not seem to carry the idea of someone being blamed.

Lear is to be blamed for believing Goneril and Regan, yet since they were merely flattering his debased scale of values, in a test which he had himself devised, it is not surprising that he did so. (CRV 1206)

There are also some formal factors that contribute to the idea of *is to blame* not being a variant of *is to*: First, *is to blame* can take adverbial modifiers between *is* and *to*, which is not possible to the same extent for the semi-modal *is to*, and, second, it is possible to combine *is to blame* with another modal. These properties are illustrated in detail in the two following sections.

4.1.5.a Modifiers

As the data showed, *is to blame* can take adverbial modifiers between *is* and *to*, which is not possible for the semi-modal *is to* to the same extent.

La Central cooking oil factory was primarily to blame. (HLJ 835)

…he also believes that a poor itinerary and a lack of turning pitches in English domestic cricket is largely to blame for the string of dismal performances. (K5J 2331)

`We believe Sheffield social services department are partly to blame for Mr and Mrs Hanby being placed in the predicament they are in today'. (K96 172)

Here is an alphabetised list of the modifiers that occurred between *am/are* and *to blame* in the data:

all	*much*
also	*mysteriously*
always	*never*
apparently	*only*
as much	*partially*
chiefly	*particularly*
completely	*partly*
entirely	*primarily*
largely	*principally*
likely	*really*
mainly	*solely*
more	*totally*
mostly	*wholly*

The large number of adverbial modifiers that can be placed between *is* and to *blame*, suggests that the phrase is possible to interpret more as a combination of *be* plus predicative (subject complement) than a form of *is to*.

It was not possible to do a corpus search on the particular modifiers occurring in medial position with the semi-modal *is to*, but a few searches on individual modifiers showed that at least *all*, *also*, *always* and *particularly* are possible intermediate modifiers with *is to*, mostly in the passive construction:

Best of all, the wildlife is back; ladybirds, butterflies, birds and bees, even frogs are all to be seen. (A0G 293)

…with guilloche knots and floral scrolls – are all to be found, in various stages of development… (J2L 1085)

The filling motifs -- petals joined in twos, urn-petals, squares with guilloche knots and floral scrolls -- are all to be found, in various stages of development, elsewhere in the region. (CRT 151)

But at this time of the year brent geese are also to be found foraging. (FH9 322)

MPs are also to summon Sir Clive Whitmore, Permanent Secretary at the Home Office, to explain repeated failures by his ministry to curb TV licence evasion. (AA5 187)

There are certain bars where artists and writers are always to be seen, talking animatedly as they set the world to rights. (G0F 256)

...and this is why the first signs of mildew especially are always to be found on such tissue. (CMM 1180)

Italian players are always to be respected. (CEP 4056)

These moments are particularly to be found in early childhood. (CAW 1276)

Significantly, a considerably large amount of the data where *is to* had an intermediate modifier had the sense of Possibility (discussed in 4.1.3). The finding is important for at least two reasons: (1) it suggests that there are more occurrences of *is to* in the Possibility sense than what was found in the search. As noted in 4.1.3, the amount of *is to* with the sense of Possibility found in the data was relatively low, but, as it seems, the sense may in fact be more common. (2) The relatively common combination of *is* plus modifier plus *to be found* suggests that this particular phrase may also be considered somewhat a marginal case of *is to*. As in the case of *is to blame*, the frequent occurrence with modifiers suggests that *is to be found* may be seen more as a combination of a form of *be* plus predicative (subject complement).

4.1.5.b Combinations with Other Modals

Another reason that weakens the 'modal' character of *is to blame* is that it can be combined with another modal (See also footnote 5 on p. 58):

> *The only useable machinery left in the workshops has been wrecked, and it's thought industrial saboteurs could be to blame.* (K1G 4085)
>
> *Crime and evil must be to blame -- not the drunk stage manager, the amnesiac hams or the brain-damaged libretto of their current production Black Wednesday.* (K59 3312)

Since modals cannot be combined with other modals, the occurrence of these particular examples weakens to some extent the idea of *is to* being considered a modal. However, the only combinations of a modal + *is to* in the data were *is to blame*-phrases. There can thus be at least two possible conclusions made from this: (1) *Is to* does have some characteristics of modal auxiliaries, but the possibility of combining it with other modals clearly places it in a very marginal category of modals. (2) In the case of *is to blame* being considered as an idiom and not a variant of *is to*, *is to* can be seen as being closer to the central modals than for example other combinations of *be* and lexical or grammatical item like *be going to* and *be able to*, since these can be freely combined with other modals: *Will you be going to the party? Do you think she'll be able to help us?*

4.1.6 *Is to* in Relation with Other Modals

After studying the meanings of *is to*, it may be interesting to see how they can be related
with the meanings of the central modals. Coates (1983, 26) describes the meanings of the
central modals in a diagrammatic picture that can be seen below. *Is to* and the meanings
found relevant in the corpus study have been added on the right side of the picture. The
left part with the central modals and the middle part with the meanings is thus from
Coates, the part on the right hand side is based on the conclusions made in the present
thesis. The picture below is a simplified version of Coates's original picture in the sense
that, in order to make the picture more readable, the subcategories for 'obligation',
'inference' and 'possibility', which in the original picture were *strong/weak* obligation,
confident/tentative inference, and *root/epistemic* possibility, have been excluded from
this picture.

   Is to has indeed many different senses, the most common of which are Planned future
and Instruction/Command. These overlap clearest with the root meanings[6] of the modals
will and *must*. The arrows are made using Coates's division of the uses into primary,
secondary and infrequent use. Coates bases her division on a table of the relative figures
of the central modals in her corpus study in the sense that primary and secondary use
together need to cover over 96 % of the cases, whereas infrequent use covers less than
four percent of all cases.

   There appears to be a mistake in Coates in the descriptions of the primary, secondary
and infrequent uses connected with this particular diagram (1983, 26). She states that

---

[6] 'Root' modality is seen here as defined by Coates (1983, 20-21): The term covers all non-epistemic
meanings of a modal, the core meanings being 'obligation' and 'permission'.

over 96 % of the cases are of either of the primary or the secondary use, but continues to state that infrequent uses must cover less than 96 % of the cases. This must be a mistake, and while drawing the additional part to the picture with the verb *is to*, it was assumed that she meant the infrequent cases to cover less than 4 % of all cases, not less than 96 %.

While the common Planned future and Instruction/Command senses of *is to* may be quite easily seen to overlap with Coates's 'obligation' and 'volition', the other uses of *is to* depicted in the picture may need further explanation (see the examples and notes given in (a) to (e) below). The two most common senses of *is to*, Planned future and Instruction/Command are depicted as the primary and secondary uses. The following diagram is adapted from Coates (1983, 26).
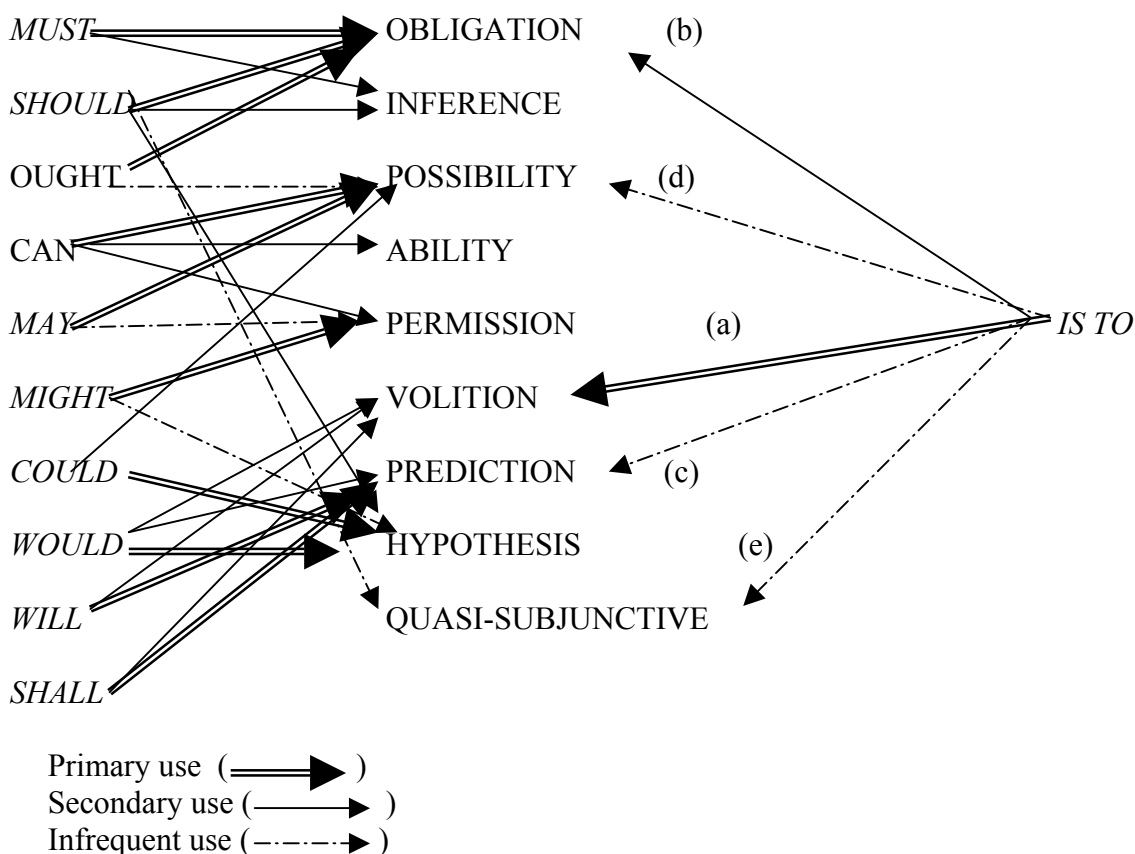

Figure 3. The correspondences between *is to* and other modals

(a) Volition. As stated above, this relates to the Planned future sense of *is to* discussed in 4.1.1. As can be seen from the picture above, the central modals used in this sense are *would*, *will* and *shall*. As regards their overlap with *is to*, it seems to be that *will* and *shall* can replace *is to*, at least in the following examples:

> *He's to play for Australia next week in a World Cup Qualifier.* (HMN 1118)
> (Cf. *He will play for Australia next week…*)

> *Audrine Hepburn shocks her family with the news she's to wed a Jewish doctor.*
> (CHA 1306)
> (Cf. *…with the news she will wed a Jewish doctor.*)

> *And because of the grave risk from infection, she's to be barrier nursed in
> isolation.* (JY0 1388)
> (Cf. *...she will be barrier nursed in isolation.*)

> *I am to be legitimated, and made heir to Duart.* (APW 1765)
> (Cf. *I shall be legitimated…*)

In *if* clauses, however, *will* or *shall* do not normally occur, and interestingly, in this case the alternative to *is to* is *be going to*:

> '*But I'll need some support if I am to give him the service he wants.* (AB9 2383)
> (Cf. *…if I am going to give him…*)

> *...their continuing contribution is vital if we are to provide an ongoing service.*
> (A00 171)
> (Cf. *…if we are going to provide…*)

The subjunctive use of *is to* will be discussed separately in (e).

When *would* is used as the past tense form of will to indicate intention in the past, it seems to have a similar meaning with the Planned future sense of *was to*/*were to*:

It was Sunday and Mark was working on the address he was to give at Trinity College, Dublin. (AC2 1811)

 (Cf. …*he would give at Trinity College*)

It took a little longer to plan how she was to make the journey... (BP1 814)
(Cf. *...how she would make the journey...*)

Elizabeth Stewart, post-graduate chemistry student, recalls that Sir Robert Robinson under whom she was to work was away working for a government department and his students rarely saw him… (J2B 796)
(Cf. *...under whom she would work...*)

`*Her friends were under the impression that she was to spend Christmas with you in America.'* (CJX 2307)
 (Cf. *… that she would spend Christmas with you…*)

Further, *would* cannot express past of *will* with the sense of intention in main clauses.

Instead, *is to* can be used both in dependent clauses (the examples above) and in main

clauses, as the following example shows:

Word of his fuel-injected mouth was enough to secure a casting for Dance Energy in `89, and originally he was to co-present the programme beside Prince's former dancer, Cat. (CD6 1081)
(Cf. **...originally he would co-present the programme…*)

However, most of the clauses in the data expressing past intention had *is to* in the

dependent rather than the main clause.

(b) *Obligation.* This use of *is to* refers to the Instruction/Command sense discussed in

4.1.4. As can be seen from the picture, the modals used to express obligation are *must,*

ought and *should*. Coates separates two categories for obligation within the central

modals: strong obligation, expressed by *must,* and weak obligation, expressed by *ought*

and *should*. In the case of *is to,* it seems that like with *must,* the negation normally affects

the main predicate, not the modal itself (Palmer 1979, 147). *Must* is also usually

understood to be more or less subjective, and it cannot be used in a habitual sense (see,

for example, Coates 1983, 33-40 and Palmer 1979, 91). The use of *must* in the passive

naturally weakens the sense of subjectivity (Coates 1983, 37).

As was stated in the beginning of section 4, it is not self-evident whether the

Instruction/Direction sense of *is to* is objective. As seems natural, it is at least partly tied

to whether the sentence is in the active or passive, the passive ones being more objective:

> *By law no preparations are to be made in anticipation of death, apart from allowing the loved ones due access, and the positioning of candles --* (A0P 428)
> (Cf. *...no preparations must be made...*)
>
> *Frank's door was closed when he got back and there was a notice on it saying that he was not to be disturbed.* (A7J 1125)
> (Cf. *...that he should/must not be disturbed.*)

Like *must*, *is to* does not seem to be used in the habitual sense.

In the past tense, *is to* may be said to replace the functional gap of *must*. Like *have to*,

it can be used in the obligation sense in the past where *must* is rarely used. According to

Coates (1983, 40), *must* can be used in the past tense "in indirect speech where the

context is past". This can be seen in the following example, where it seems possible for

is to to be replaced with *must*:

> *She'd wept and said he wasn't to talk like that.* (G1X 36)
> (Cf. *...and said he mustn't talk like that...*)

Coates (1983, 40) adds that

even rarer is the occurrence of Root Must in such a context where
there is no overt indication of reported speech. It is usually possible to
hypothesise an internal monologue in such cases.

Coates's argument seems indeed plausible, her 'internal monologue' maybe indicating

something like seen the following example with *is to*:

Moses was clear about what he was to do, namely set people free. (C8L 422)
(Cf. *Moses was clear about what he must do…*)

(c) *Prediction*. This refers to the Destiny sense discussed in 4.1.2. As can be seen

from the diagram, according to Coates, the modals used to describe this sense are

primarily *will* and *shall*, and, more rarely, *would*. Since all the examples of this use in

my data were in the past tense, the only possible 'overlapping' modal in this case is

would. *Would* is used of course in (free) indirect speech, and although it cannot naturally

replace *is to* in the idiomatic 'time wasn't to be' (discussed in 4.1.2, see p. 51), it seems

that it is possible to replace *was to/were to* by *would* at least in some cases in the

'historical' sense:

*He was to live on until 1832, when he died, aged 58 described as being of the
Lower Market Place.* (CBJ 340)
(Cf. *He would live on until 1832…*)

*… the result was the sort of performance he was to deliver several times in his
film career and none the worse for that: professional, convincing.* (CL2 2155)
 (Cf.…*the sort of performance he would deliver…*)

*Kingsford-Smith and Ulm, whose epic flights in the southern hemisphere shone
like the target indicators he was to introduce years later over Germany.* (J56 803)
(Cf. …*he would introduce years later over Germany*.)

*Educated at home, Alice early on showed evidence of the beauty, tact, and
vivacity for which she was to become renowned.* (GTF 1338)

(Cf. *...for which she would become renowned*.)

(d) *Possibility*. This is an area of use was discussed in 4.1.3. Although there were relatively few examples of this use in my data, they showed a clear pattern different from other uses of *is to*.

It seems that the use of *is to* in this sense is restricted to the 'root' possibility (Coates 1983, 26) and that it cannot be used in the epistemic sense. According to Coates, *can* is the modal primarily used in this sense, and also *could*, and, rarely, *may* and *might* can be used. In the following example, it seems that *is to* can be replaced with at least *can* and *may* with little or no difference in meaning:

> *His regular audiences are to be found in schools, libraries and village halls.* (AJ6 493)
> (Cf. *His regular audiences can/may be found in ...*)

In the past tense, on the other hand, it seems that the Possibility sense of *is to* can be replaced by *could* with no significant change in meaning:

> *Every spring she was to be found visiting Fife.* (EF2 872)
> (Cf. *Every spring she could be found visiting Fife.*)
>
> *...the giants had lifted her out of her icy misery and carefully put her down in the warmer waters where she was to be found today.* (AEA 990)
> (Cf. *...where she could be found today.*)

The second example is unusual in the sense that although it is in the past tense, the time referred to is 'today'. The only possible interpretation seems to be that 'today' is understood as this particular day, and not as the 'present', which gives us the possibility

to understand 'today' as meaning sometime earlier today, that is, some part of this day that already belongs in the past.

The negative seems to function in the same way with the Possibility sense of both *is to* and the central modals. Coates presents the phrase *nihil obstat*, meaning 'it is possible for… '. According to her, whereas *can* in the root possibility sense has the meaning of nihil obstat, the "negative examples mean 'not nihil obstat' – it isn't the case that nothing prevents'" (1983, 96). Thus the following examples seem to be possible with *could* as well:

> *If they went to the house and saw him move into the door, they'd turn out the family, look everywhere and he was not to be found.* (G09 26)
> (Cf. *...he could not be found*.)

> *They built manyattas, but were not to be found in them…* (C90 210)
> (Cf. *…but could not be found in them...*)

(e) (*Quasi-*)*Subjunctive*. This use of *is to* was discussed in connection with the *if* clauses in 4.1.1 (see p. 50). Palmer (1979, 1987) does not mention the subjunctive use in connection with *is to*, but according to Quirk et al. (1985), the subjunctive *is to* (*be to*) is used to express hypothetical meaning. According to Coates's picture, *should* is the only modal that can be used as a (quasi-)subjunctive. According to her, "in subordinate *that* clauses, *should* is common as a quasi-subjunctive in British English (though not in American English…)"(1983, 68). As discussed in connection with the subjunctive use of *is to* in 4.1.1, also Coates states that this construction is relatively formal (1983, 68). Here are two of the examples she gives of the quasi-subjunctive *should* (also on page 68):

it was inevitable that Peter Ustinov should join the exclusive four-star club by writing, producing, directing and starring in one film. (Lanc2-C371)

And once again Churchill in early 1915 became the one who decided that the whole thing should be abandoned. (Lanc2-1339)

One must remember, however, that the subjunctive *were to* is possible only in *if* clauses, whereas the (quasi-)subjunctive *should* is used most commonly in *that* clauses.

4.2 General Remarks on the Data

4.2.1 The Different Forms of *is to*

The corpus study itself consisted of as many as 20 queries. The surprisingly large amount of different forms of *is to* is clarified in Table 3. Since the total number of samples in the written English is 90 million and in the spoken English 10 million, the figures of written English have been divided by nine in order to make the figures more easily comparable. Fifty examples of almost all the twenty forms were studied; a few negative contracted forms occurred in the data less than fifty times, and in such cases all the existing forms were studied. The total number of examples studied was 590. This may seem to be considerably less than the 'potential' amount of examples (50 × 20 forms = 1000), but is explained by both the lack of examples of some forms and irrelevant data which in several cases seemed impossible to avoid. Attempts to avoid the irrelevant data were made, and with some forms the attempts proved successful: For example, the fact the corpus queries made on the forms *is to*, *'s to*, *isn't to*, *'s not to*, *is not to*, *was to*, *wasn't*

to and *was not to* contained almost exclusively irrelevant material, separate queries with

he and *she* (*he is to*/*she is to*, etc.) were made in connection with these forms.[7]

Table 3. Number of forms found per 10 million words in both written and spoken language.

	Written	Spoken
am to *'m to*	26	15
are to *'re to*	651	290
is to *'s to*	43	79
was to	107	32
were to	662	303
am not to *'m not to*	3	8
are not to *'re not to* *aren't to*	36	42
is not to *'s not to* *isn't to*	5	4
was not to *wasn't to*	11	1
were not to *weren't to*	32	8

Comparing all the forms of *is to* separately, the most common ones were *are to* and

were to, which were both more than twice as common in written than in spoken English.

They were both mostly used to indicate planned future events.

As seems natural, the contracted forms are generally more common in the spoken

language. Comparing the alternative forms *'re not to/aren't to* and *'s not to/isn't to,* the

data showed that the first forms were clearly the ones used in the spoken language.

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[7] Most of the irrelevant examples occurring in the data had *be* as their predicate instead of *is to*, as with *was to* in the following: *Our task was to build a waterproof tent*.

The three forms where *is to* was used clearly more in the spoken language were the contracted forms *he/she's to*, *we/you/they're to* and *we/you/they're not to*. In the samples of spoken English, *he/she's to* was used almost exclusively to indicate future plans, while *'re to* was used quite evenly to indicate future plans as well as to give instructions or commands (the Instruction sense occurred almost exclusively in the second person, whereas the future plans were present almost only in the first and third person). The negative forms *you/we/they're not to* were used almost only in the Instruction sense.

4.2.2 The Negatives

A common remark made of the Ten Commandments in the Bible is that most of them are prohibitions. This idea of instructions and commands being mostly negative in form proved true in the case of *is to*: In the BNC data, 63,2 % of all Instruction/Command examples were negative in form, and looked at from different viewpoint, 55,4 % of all negative forms were used as instructions or commands. The frequency of negative commands seems relatively high, but further study on other deontic modals needs to be carried out before making any larger conclusions.

Table 4. The relative frequency of positive and negative forms of *is to* in terms of different senses.

	Planned future	Destiny	Possibility	Instruction/ Command	*to blame*
Present/ positive	**57,5 %**	-	27,3 %	28,5 %	38,1 %
Present/ negative	14,4 %	-	27, 3 %	**38,2 %**	28,6 %
Past/ positive	19,1 %[8]	50,8 %	18,1 %	8,3 %	14,3 %
Past/ negative	9,0 %	49,2 %	27,3 %	**25,0 %**	19,0 %
Total	100 %	100 %	100 %	100 %	100 %

Further, the table also shows the clear dominance of positive forms in the Planned future sense. It seems logical that announced plans are more likely to be positive, and comparing the relative figure of present and past tense seems to contribute to this idea. Interestingly, while the Planned future sense used in the present tense occurred over four times more frequently in the positive than the negative form, the amount of positive Planned future examples that were in the past tense was only double compared with the negative past tense ones. Presumably the uncertainty of the future has something to do with the tendency to announce future plans in the positive sense; the difference with the past tense would be thus the very status of the supposed future: Using the past tense, the speaker already knows the result.

---

[8] This figure includes the subjunctive use (e.g. *If I were to choose the colour, I'd pick the yellow one*).

5 Historical Aspects of the Semi-modals

5.1 Major Changes in Modal Verbs in the Middle English Period

In Old English, the modals were like main verbs in that they were inflected for person and number and took direct objects (Lightfoot 1979, 98). Lighfoot (1979, 101 – 109) presents a list of independent developments that together formed the re-structuring of the modal verbs, which took place in the sixteenth century. The following comments follow Lightfoot's list. First, modal verbs no longer took direct objects. This had, as stated above, been one of their general abilities in Middle English and still continued to be one of the characteristics of *can*. A new element that affected verbs in the Middle English period, was the *to* infinitive that started to appear after the main verb to connect it with the following verb. This change did, however, not alter the modal verbs, which continued to be followed by a bare infinitive.

Furthermore, other than modal verbs belonging to the preterit-present inflectional group were lost. This change caused the fact that modal verbs could now for the first time be said to constitute a unified class in terms of their semantics and inflection.

Lightfoot also mentions that the obscure relationship of the present and past tense that is characteristic for the modals, has its roots in the changes that occurred in the sixteenth

century. According to him, it was then that "*might*, *could*, *should* and *would*, the historical preterits of *may*, *can* and *shall*, began to acquire present senses"(1989, 94). Lightfoot goes on to mention that it was also in the Middle English period when *must* and *ought* began to be used in their present senses, having earlier been the preterit forms of corresponding verbs.

Several additional changes in the modals occurred in the sixteenth century. It is debatable whether the fact that the modal verbs were reanalysed as being a subtype of auxiliaries rather than being main verbs, actually caused the additional changes in the modals. According to Lightfoot, the sort of fundamental reanalysis that the modal verbs were subject to, often causes additional, sudden changes on the surface structure (1979, 113). According to Lightfoot, these changes included for instance the process of modal verbs losing their infinitival and participial forms. Also, as Nagle summarizes Lightfoot's arguments, the "restriction, in most dialects, to one modal for main verb", and the "loss of earlier co-occurrence with *have* plus –*en*" were consequence of the radical reanalysis of modal verbs in Early Modern English period (Nagle 1989, 95).

Furthermore, a change that Nagle agrees with Lightfoot to be something that had its rise in the reanalysis of the modals, was that the negatives began to be used only after auxiliaries, not after main verbs, and the subject-verb inversion began to be a property that was exclusive for auxiliaries. These two characteristics are in fact the first two of the NICE Properties that are nowadays used as criteria in order to distinguish modal verbs from other verbs.

Lightfoot goes on to argue that it was also the reanalysis that gave rise to the first semi-modals. Semantically similar to modals but syntactically more flexible, they filled "an apparent vacuum in the verb system" (Nagle 1989, 95).

5.2 Why Did Semi-modals Appear?

Syntactic reasons. The appearance of semi-modals can be viewed from at least two different aspects, depending on whether one wishes to emphasise their syntactic or semantic differences in relation to modal verbs. As mentioned above, one can argue that the semi-modals, and modal periphrasis in general, emerged in order to fill a gap in the verb system after the reanalysis of the modals, which left them with more limited syntactic possibilities than before. Nagle (1989, 96) cites Steele et al (1981) according to whom a major factor that contributed in the rise of the periphrastic expressions was that the use of the subjunctive radically diminished, having earlier functioned as a common means of indicating modal meanings such as doubt, uncertainty or prediction. On the other hand, Nagle (1989, 96) continues by introducing Roberts's (1985) view, who argues that rather than just the diminished use of the subjunctive, it was the "loss of the verbal inflectional system as a whole" which led to a change in the modals as well.

Semantic reasons. Although the syntactic motives for the rise of the semi-modals seems indisputable, there may also be other reasons. In his discussion, Goossens (1984, 153) agrees with Lightfoot's arguments on the syntactic advantages of the semi-modals, but broadens the discussion to include semantic issues as well. According to him, the semi-modals actually had semantic qualities that could not be expressed by using modal

verbs and that this, in addition to their syntactic advantages, was the reason for their use becoming more general. Goossens (1984, 153) presents as examples two particular semantic areas where the semi-modals presented an unambiguous choice for an indefinite modal: First, all the modals except *can* began to acquire a new, epistemic sense side by side with the existing deontic senses. Thus, one could avoid being misinterpreted by choosing to use a semi-modal that had a (moderately) non-ambiguous sense. Second, especially with *can*, the ambiguity of deontic versus subject-oriented senses could now be avoided by replacing the deontic *can* with *be able to*.

Finally, one might note that the semi-modals, being a non-coherent group in any case with regard to their syntactic and semantic properties, did not come to exist in the English language in the same period of time. The following data is presented in Biber et al (1999, 487) who base their information in the Oxford English Dictionary. As was noted in 3.1 (p. 19), Biber et al classify *need to* (like *dare to*) as marginal auxiliaries, although these are recognised commonly in the literature as main verbs.

Semi-modals attested before 1400: *need to, ought to, used to*

Semi-modals first attested between 1400 and 1650: *had better, have to, be going to*

Semi-modals first attested between 1650 and 1800: *be supposed to*

Semi-modals first attested after 1800: *better,* (*have*) *got to.*

Significantly, the first quoted instance that the OED has of *is to*, which Biber et al exclude from their discussion, is from as early as the year 1200:

Alle tho the habben ben...and alle tho the ben to cumen her after. (*Trin. Coll. Hom*. 3, under sense 16.a. of *be*)

5.3 Historical *is to*

In order to obtain information on the historical uses of *is to*, the COPCA (Century of Prose Corpus, part A), which contains examples from 18th century English prose, was used. All examples in this section are taken from COPCA unless assigned differently. Due to limitations on the search possibilities in the COP corpora, only positive forms could be chosen, and the forms looked at were *are to*, *is to*, *was to* and *were to*. The part A consists of around 300 000 words. The number of instances found in the corpus were the following:

Table 4. Number of different forms of *is to* found in the COPCA

is to	55
are to	47
was to	21
were to	7

The present uses of *is to* were discussed in section 4. This section proceeds in analogy with that section in that the four main uses of *is to* will be discussed in the same order as they were introduced earlier.

The first sense studied on *is to*, Planned future (see 4.1.1), certainly occurs in the 18th century data:

To enumerate the various applications of this duty would be too minute and tedious; but this may suffice, that all such men should bear constantly in mind, that the master they serve is, or is to be the king of their country… (1738, Bolingbroke: *Patriot King* 101/079-P20)

But let us indulge a dream of idle speculation, and suppose that we are to engage with Spain, and with Spain alone…(1771, Johnson: *Some Thoughts on Falkland's Islands* 103/035-P09)

We are told, that, when Demosthenes was to plead, all ingenious men flocked to Athens from the most remote parts of Greece, as to the most celebrated spectacle of the of the world. (1741, Hume: *Of Eloquence* 020/031-P05)

In addition, the subjunctive use (e.g. *If I were to…*) (see p. 50) is also to be found in

the 18th century material:

As, for example, if I were to read the history of all the military or religious orders regularly, one after another, the latter puts the former out of my head... (1748, Chesterfield: *Letters* 119/056-P17)

If we were to, earn any dialect previous to our own, it might, perhaps, with the greatest propriety, be the Saxon... (1764, Goldsmith: *Prefaces* 017/039-P04)

Further, also the Destiny sense (see 4.1.2) is present in the 18th century data:

According to the greater part of historians, he was to spend the remainder of his days, under the protection of a powerful and humane people, in a state which in itself should seem worthy of envy…(1759, Smith: *Theory of Moral Sentiments* 113/058-P06)

The law that was to govern Adams was the same that was to govern all his posterity, the law of reason. (1690, Locke: *Two Treatises of Government* 012/021-P06)

Importantly, it seems that in the 18th century material, the Destiny sense in

used in the present tense as well, as in the following examples:

Commonwealths themselves take notice of, and allow, that there is a time when men are to begin to act like freemen, and therefore till that time require not oaths of fealthy or allegiance… (1690, Locke: *Two Treatises of Government* 043-046P11)

Whether we are to be drowned, or to come to a harbor, is the business of Jupiter, not mine. (1759, Smith: *Theory of Moral Sentiments* 174/019-P10)

This is an interesting finding, and although no further attempts will be made here to explain the change in use of *is to*, one reason that might be that divination, omens and perhaps destiny in general were more recognised and approved concepts than today. Also, one might note that while in the present day corpus (the BNC) there are examples of both written and spoken language, the Century of Prose Corpus relies only on written texts.

The Possibility sense of *is to* (see 4.1.3) occurs frequently in the 18th century data. As in was noted on pp. 53-54, verbs following *is to* in this sense in the BNC data were *be found, be expected*, and *be seen*. Significantly, it seems that in the COPCA, *is to* used in this sense is followed not only by these verbs, but with other verbs as well, like *be observed, be measured, date* and *be acquired*, like in the following examples:

Gender, it is to be observed, cannot properly belong to the noun adjective, the signification of which is always precisely the same, whatever species of substantives it is applied. (1761, Smith: *First Formation of Language* 138/030-P11)

…obeyed or followed by the greatest or strongest part of the people: according to which, the power or weakness of each is to be measured. (1679, Temple: *Essay on the Original and Nature of Government* 053/040 P26)

It is from this period, according to the French antiquarians, that we are to date the institution of the magistrates and councils of the cities in France. (1775, Smith: *Wealth of Nations* 055/027-P09)

> *...all those situations, in which it requires the greatest talents and virtues to act with propriety, but in which the greatest applause is to be required by those who can acquit themselves with honor.* (1759, Smith: *Theory of Moral Sentiments* 094/060-P05)

Further, the fourth sense of *is to* discussed, that of Instruction/Command (see 4.1.4), is also present in the 18th century data. Like in Present Day English, the examples of this sense are often in the passive.

> *Political arrangement, as it is a work for social ends, is to be wrought by social means.* (1790, Burke: *Reflections on the French Revolution* 182/018-P20)
>
> *The office of kings is then, of right divine, and their persons are to be reputed sacred.* (1738, Bolingbroke: *Patriot King* 025/017-P07)
>
> *...for in all the states of created beings capable of laws, where there is no law, there is no freedom; for liberty is to be free from restraint and violence from others; which cannot be where there is no law...*(1690, Locke: *Two Treatises of Government* 014/140-P06)
>
> *No obligation could excuse me in calling evil good, or good evil; but I am of the opinion that I might justly think myself obliged to defend what I thought was to be defended, and to be silent in anything which I might think was not.* (1715, Defoe: *An Appeal to Honour and Justice* 078/046-P43)
>
> *...it was not until the combat was over, when the lion was to be looked upon as dead, according to the received rules of the drama.* (1710, Addison: *Spectator No. 13* 019/112-P05)

However, the idiomatic phrase *something/someone is to blame* (see 4.1.5) is not to be found in the 18th century data.

Interestingly, whereas in Present Day English *is to* has no non-finite forms, the OED gives archaic examples of non-finite use of *is to*. The following represent a few of these:

> Suche ..wymmen be to compare to the wyf of Lothe. (1483, Caxton *G. de la Tour Ev*, under sense 17.a. of *be*)

Not a Good Samaritan being to be found. (1679, Penn *Addr. Prot.* II §2 (1692) 76, under sense 17.b. of *be*)

If a gentleman be to study any Language, it ought to be that of his own country. (1692, Locke *Educ.* § 167, under sense 16.a.of *be*)

Mighty uneasy..about their being to go back again. (1725, De Foe *Voy. round World* (1840), under sense 16.a. of *be*)

Had he been to chuse between any punishment…and the necessity. (1814, Scott *Wav.* I. v. 55, under sense 16.a. of *be*)

However, the in the 18th century corpus only one example of a non-finite use of *is to* was to be found:

For, if pains be to be taken to give him a manly air and assurance betimes, it is chiefly as a fence to his virtue, when he goes into to the world, under his own conduct. (1693, Locke: *Some Thoughts concerning Education* 055/035-P10)

To summarise the important findings of *is to* in the COPCA data, it seems that the most common uses of the verb have stayed relatively similar during the last three hundred years. However, on the basis of the examples found representing the Destiny and Possibility senses, one might suggest that the use of *is to* has been more versatile in that more following infinitives (Possibility sense) and more tenses (Destiny sense) were used with the verb. The common phrase *is to blame* was not found, but further study is required before conclusions about its presence in the 18th century can be made. Again, unfortunately (cf. comment on p.79), due to the limitations of the search programme no searches could be made on the ability of the eighteenth century *is to* to take intermediate modifiers. This would have been interesting especially in that this property seems nowadays to be limited only to two senses of *is to* (see 4.1.5.a on p. 59). Finally, the use

of *is to* has become more limited in the Present Day English in the sense that as the non-

finite forms no longer exist, *is to* can now occur only as the first verb of the verb phrase.

6 Conclusion

In the beginning, the NICE Properties and the TNP tests were introduced in order to use them in defining the grammatical status of the semi-modals. Section 3 started with an outline of the terminology used in connection with semi-modals in the literature. The conclusion made from the different classifications studied was that, in many cases, the term chosen is not relevant from the point of view of meaning. Also, groups roughly similar to semi-modals as seen in this paper are often not delimited in an exact manner; the marking *etc.* is often used to indicate that it is possible to include other verbs in the class as well.

After presenting different classifications of the semi-modals, possible subcategories of the semi-modals were introduced and studied in terms of their relations to the NICE Properties and the TNP tests. Although the TNP tests did not provide any results that would indicate the semi-modals studied to form a uniform entity (in that they could all for instance be defined as constituents of either simple or complex verb phrases), they were nevertheless worth applying.

The semi-modals studied were divided into five subcategories mainly on the basis of the NICE Properties and some characteristics exclusive for modals. The groups were the following:

> Marginal auxiliaries (*need, dare, ought, used to*)
> Idiomatic phrases (*have got to, had better, would rather*)
> *be* + lexical item + *to* infinitive
> *is to*
> *have to*.

With regard to further investigation, the negation of the semi-modals certainly offers an interesting subject, especially since it was noted that some individual expressions (e.g. *be going to*, *would rather*) were quite ambiguous in terms of their negative forms. The discussion on the grammatical status of the semi-modals was concluded by stating that instead of a uniform unit, the semi-modals may rather be seen as a continuum with *have to* being most like a lexical verb, and *is to* and *ought* the most modal-like. The main criteria for the continuum are summarised on pp. 41 – 43.

An aspect excluded from this paper but undoubtedly worth considering is whether the question of the semi-modals being either constituents of simple or complex clauses could be studied by using semantic argumentation (see for example Chapin 1973, 8). The hypothesis is that the semi-modals would not even then prove to behave similarly, but rather, show great variety in terms of their status as auxiliaries versus predicates.

Further, section 4 introduced a corpus study carried out on the verb *is to*, which was seen as the most modal of the semi-modals studied and was thus seen to have significance as an individual semi-modal. The different senses of *is to* that were studied in separate subsections were based on Palmer's (1979, 1987) presentation of the verb. Palmer's four basic senses were identified in the corpus, and some additional findings concerning the tense in which the different senses occurred were made: First, it was argued that while according to Palmer the Destiny sense occurred only in the past tense, it would seem possible to use it in the present tense as well. Although no such findings were made in the BNC corpus, the COPCA showed several occurrences of this particular use. This could indicate, for instance, that omens and 'destiny' as such may have been more socially approved concepts than today. However, a fact worth bearing in mind is

that the data in the two corpora differ not only temporally, but also in their style: While the British National Corpus contains examples of both written and spoken language, the Century of Prose Corpus relies naturally only on written texts. It might in fact be argued that some of the present uses of the Destiny sense in the COPCA data had nothing to do with omens but merely represented an especially festive style of speech. Second point to be made is that although according to Palmer's definition the Instruction/Command sense was only used in the present tense, the BNC data showed it frequently also in the past tense as part of (free) indirect speech.

There were also three idiomatic uses of *is to* to be found in the BNC data, the first of which was "time wasn't to be" which was seen to belong to the Destiny sense of the verb. The others included *he/she wasn't to know*, which according to the present author had several possible interpretations, and the phrase *is to blame*.

With regard to the present uses of *is to* in the BNC, findings considered most important by the present author came up in connection with the phrase *is to blame*. This idiomatic phrase, and to a lesser extent the Possibility sense of *is to*, have somewhat different syntactic properties compared with the other uses of *is to* in that they can be modified by an intermediate adverbial, and *is to blame* has the capability to be used in a non-finite form in a combination with another modal. As it was found out from the COPCA data, *is to* could still be used in the non-finite form in the eighteenth century, and it would therefore be interesting to examine whether *is to blame* could in fact be considered as a historical relic of *is to* (this hypothesis was admittedly not encouraged by the COPCA data since it showed no occurrences of *is to blame*), or whether the deviating properties of the phrase are due to something else, for example its idiomatic sense.

With respect to the historical data on *is to* in general, in this paper only the very surface was scratched. Yet the findings provide an encouraging opportunity for further study: It would be for example interesting to examine whether the disappearance of the non-finite use of *is to* could be dated more accurately. Further, more quantitative study on occurrences of *is to* in the eighteenth century would be worth the effort, since, as it was noted that *is to* of the eighteenth century was in some of its senses more 'versatile' than in the Present Day English, one is tempted to think that it was in general considerably more commonly used than today.

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