Para elaborar una gramática pedagógica que refleje el uso auténtico de la lengua inglesa por hablantes nativos es necesario partir de una descripción de la lengua basada en el análisis de grandes corpora, que puede revelar asociaciones entre elementos lingüísticos que escapan a la intuición del lingüista. Este artículo ilustra cómo los datos proporcionados por el análisis de un corpus pueden ser usados en una gramática pedagógica en el área de la modalidad. Se examinan algunas estructuras léxico-sintácticas como parte del sistema modal de la lengua inglesa (ej. *be bound to*, *be likely to*). Los resultados muestran que estas estructuras no deberían considerarse estructuras que suplen las formas de las que carecen los paradigmas de algunos verbos modales, dado que tienen significados específicos no expresados por los verbos modales con los que se les asocia. Los resultados también revelan que la presentación de algunas de estas estructuras como sinónimas en gramáticas y en materiales docentes no refleja el uso real.

1. **INTRODUCTION**

The widespread use of computerised corpora of English enables descriptions of English for language teaching which are based on quantities of authentic data rather than on intuition. This has solved the grammarian’s dilemma whether to study actual instances of language, even if some of them may be untypical, or to study invented instances. With the use of computers grammarians can «evaluate actual instances and select the most typical» (Sinclair, 1986: 56), that is, those which are worth teaching.

An important use of corpus-based studies has been their contribution to language pedagogy. Corpus evidence has been used to find out which language items and which meanings of these items are most frequent, thus providing a clue as to which aspects should be devoted more time in instruction (e.g. Mindt, 1986). Corpus evidence has also served to challenge the tacit assumption that the current grammatical descriptions
of English provide all the information that is appropriate and necessary for creating language teaching materials.

Corpus linguists question the traditional distinction between syntax and lexis as two separate aspects of language and suggest that pedagogic grammar should take account of the interface between grammar and lexis (Sinclair, 1986; Lewis, 1993; Willis, 1990). This is the starting assumption for any pedagogic grammar based on corpus evidence: sense and structure are associated, or, as Sinclair (1986: 61) puts it, «the underlying state of affairs is an integrated sense/structure complex.» A learner does not really «know» an item of vocabulary until he or she knows the patterns it has, that is, how it is used. Firth (1957) proposes that meaning should be studied at different levels, one of them being meaning by collocation, or habitual co-occurrence. The words that co-occur habitually with an item and the lexico-syntactic patterns in which it participates provide information about the use of that item. Investigating language use with a corpus allows «knowing a word by the company it keeps» (Firth, 1957), because it permits one to retrieve its regular and typical associations.

This paper is an attempt to illustrate how corpus analysis could inform a pedagogic grammar in the area of modality, and thus provide further evidence of the importance of corpus analysis for the elaboration of a grammar which shows learners how the language they are learning is used. For this purpose, we will focus on two sets of modal items: the verbs get to-infinitive and manage to-infinitive, related to the meaning of achievement; and, items which follow the pattern «be+ adjective+ to-infinitive» and express different degrees of possibility-certainty: be likely to/ be liable to and be bound to/ be certain to/ be sure to.

2. THE EXPRESSION OF MODALITY WITH LEXICO-MODALS

In her study on epistemic modality, Holmes (1988) concludes that there is a mismatch between the real use of English and what language learners are taught in textbooks. The most typical meanings of modal verbs are undertaught, and the lexical verbs (e.g. appear, believe, doubt, suppose), nouns (e.g. possibility, tendency) and adverbials (e.g. perhaps, of course, probably) used to express epistemic modality are usually neglected.
The verbal forms that express modality include modals, lexical verbs (e.g. permit, forbid) lexico-modal auxiliaries (e.g. be able to, be certain to) and catenatives (e.g. manage to). Traditionally, *be able to* and *be likely to* have been described as semi-modals (Dixon, 1991; Palmer, 1987) or lexico-modal auxiliaries (Downing and Locke, 1992). Verbs such as get to or manage to, which convey modality meanings related to those of the modal *can*, have not usually been regarded as lexico-modal auxiliaries but as catenative verbs, i.e. verbs such as appear to, come to, fail to, get to, happen to, manage to, seem to, whose meanings are related to aspect or modality (Quirk et al., 1985). However, the distinction between lexico-modal auxiliaries and catenatives does not seem to be a clear-cut one. Dixon (1991), for instance, lists *be able to* and *get to* within semi-modals with the meanings of ability and achievement, respectively. The distinction between types of verbs used to express modality is related to the question of whether they are considered grammatical or lexical elements. Since we regard grammar and lexis as a complex system, we are not concerned with this distinction. Thus, we will consider the items analysed in the paper as items with a modality meaning and use the term «lexico-modal auxiliary» to refer to all of them. Grammars do not devote much space to these verbs. Usually they are just listed as alternative forms of modals, or rather, as suppletive to modals: as supplying the missing forms of modal verbs. But rarely do grammars include descriptions which inform of their patterns of use and of the differences between them. For instance, *be likely to* and *be liable to* tend to be presented as synonymous lexico-modal auxiliaries which express epistemic modality, a description which does not help the learner to know which form a native speaker would use on a specific occasion.

One of the most productive types of corpus-based research is the investigation of seemingly synonymous or near-synonymous words (e.g. Biber, Conrad and Reppen, 1994 on certain and sure; Kennedy 1991 on between and through). Corpus evidence reveals that some words that are presented in dictionaries and grammars as equivalent in meaning have different association patterns and are used differently by native speakers. There are some corpus-based studies of English modals (Coates, 1983; Mindt, 1995), which provide analysis of the semantic functions of modals and of the verb-phrase structures each modal is most likely to occur in. It would also be useful to follow this approach with lexico-modal auxiliaries.
The purpose of this paper is to examine some modal items (get to, manage to; be likely to, be liable to; be bound to, be certain to, be sure to) as part of the modal system and to illustrate how corpus evidence can be used to reveal the differences in meaning between these forms and the corresponding modal verb and the differences or overlapping in use and meaning between pairs that are presented as synonymous words. A corpus-based study enables us to look at these verbs in their context of occurrence in order to provide an accurate description of their use.

3. CORPUS AND METHOD

The corpus used for this study is the Bank of English2, a corpus consisting of 300 million words at the moment of study. It includes written and spoken American and British English and written Australian English. In order to explore the corpus we used the software at COBUILD. A concordancer allowed us to retrieve all the occurrences of the lemmas manage to, get to, likely to, liable to, bound to, certain to and sure to, when followed by infinitive. In a Key Word in Context (KWIC) concordance each occurrence of the word under analysis occurs in the middle of a line of text. The most significant collocates (i.e. words that tend to co-occur with an item) of these forms were ordered in terms of t-score, a statistical measure which indicates the degree of «confidence with which we can claim that there is an association» between two items (Clear, 1993: 281). The usefulness of analysing the collocational meaning of words is that, as Stubbs (1996: 173) points out, the collocations in which a word occurs «show the associations and connotations (words) have and therefore the assumptions they embody». We took 500 instances of each item to analyse them in printouts with a large context to make sure of their meaning.

4. MANAGE TO AND GET TO

We have analysed the typical associations of manage to in order to show that, when used to express deontic modality, it is not simply suppletive to the verb can. Then, we have compared the use of manage to and get to, items which express different but similar modality meanings.
4.1. Manage to

The number of occurrences of manage to in the corpus was 20,438. The 20 verbs that most significantly collocate with manage to in terms of t-score are the following:

get, keep, make, find, escape, do, avoid, stay, win, survive,
turn, persuade, hold, maintain, put, convince, reach, produce, achieve, take

The events referred to by the verbs that complement manage to can be classified as achievements (Vendler, 1967). Achievements refer to the instant when a state is reached, e.g. win a race, solve a problem. Thus, the structure manage to-infinitive always implies completion in a definite time. Since manage to is not only used to express modality but also aspectual meaning, it conveys implications that are not conveyed with can.

In the first place, manage to implies an actualised event. Manage to and get to belong to the set of verbs that Kartunnen (1971) described as implicatives: verbs that when followed by an infinitive complement imply that the action expressed by the infinitive was performed. Thus, (1) implies (1') and (2) implies (2'):

(1) Nine exiled Tibetans managed to obtain visas for the forum.
(1') Nine exiled Tibetans obtained visas for the forum.
(2) These trousers manage to look supremely casual without looking sloppy.
(2') These trousers look supremely casual without looking sloppy.

Manage to expresses actuality even in present tense, which is not necessarily expressed by can or be able to. In the following example be able to is used to express potentiality, not actuality.

(3) I’m able to make you rich and wise in a very short time.
Its actuality meaning is probably the reason why pedagogic grammars sometimes include manage to as suppletive to can, to describe the successful completion of a specific action in the past, thus, opposing it to «could» that can only express general ability in the past.

Although manage to usually has a human subject it may also occur with non-human subjects to express achievement and actuality. The difference in meaning with can is here more evident, since can would unequivocally express potentiality:

(4) a. Certainly both lenses appear at first glance to be very conventional. They even manage to look as if their external parts have been machined in metal.
   b. The quake lasted just 20 seconds but managed to derail trains...
   c. It is not an easy place to trade from, but The Delicatessen does manage to keep a good selection of Scottish cheeses.

Examples (5) and (5'), where «manage to» (e.g. 4a) has been replaced by «can» and «are able to», seem to be quite odd sentences.

(5) They can even look as if their external parts have been machined in metal
(5') They are even able to look as if their external parts have been machined in metal.

Some descriptions of this verb state that it implies that a result was obtained after considerable effort or perseverance (Dixon, 1991: 180). The patterns associated with this verb show that it is closely related to the meaning of counterexpectation. This accounts for the frequent occurrence of manage to in clauses introduced by linking words such as but, despite or although, especially when manage to occurs in the past tense.

(6) Last year Lizzie gave me a cordless drill. I'm no good at DIY, but I did manage to put up a rack.
The present tense form occurs frequently in conditional clauses introduced by *if* or *even if*, where the speaker expresses doubt as to the fulfilment of the action.

(7) They know that if they manage to enter this country the government will be forced to let them stay.

*Manage to* also collocates with words such as *finally, eventually, even, somehow, still* and with items which indicate “difficulty”: *pressure, constraints, etc.*

(8) a. When Naomi feels homesick she tucks into a Cadbury’s Flake but still manages to keep her figure.
b. We have the feeling that if we could just somehow manage to get on top of things once, we’d be okay from then on.

It also occurs very frequently with items and structures which imply surprise, such as questions beginning with *how?* or indirect questions with the particle *how* following expressions such as «I wonder», «I don’t know», «I can’t understand», «I had to explain», «one puzzles».

(9) Did you ever wonder how the top supermodels manage to look stunning and carry themselves so well on the catwalk?

In summary, *manage to* is used to express achievement with the implication that the completion of the action was intended. Its collocates also reveal that it has a counterexpectation meaning. The previous discussion suggests that teaching *manage to* as an implicative verb used to express achievement, and not as an alternative to the past form of *be able to*, would make it easier for the learners to understand all the utterances where *manage to* occurs.

### 4.2. Getto

*Get to* is more frequent in spoken speech than in written speech. The corpus with the highest percentage of occurrences is that of ordinary
conversation. The verbs that most significantly collocate with *get to* in terms of t-score are the following:

*know, see, work, be, play, sleep, do, go, meet, hear, keep, choose, talk, make, say, use, eat, spend, wear, watch*

As we can see, these verbs are different from those that collocate with *manage to*. Like *manage to*, *get to* is also an implicative verb, but there are clear differences between them. For instance, in the following example *manage to* could not substitute for *get to* without a change in meaning:

(10) You have to pay 1 pound for temporary membership, even if all you want is a cup of tea, but you get to enjoy the ICA’s art and ambience.

Unlike *manage to*, *get to* does not imply achieving something difficult, but having the chance to do something.

(11) a. I recommend you sit by the lavatory. You don’t get any prizes for smartness but you get to meet a lot of new people.
    b. My main problem is that because I’m always working on the Indy, I don’t often get to see the races.

This meaning can also be expressed with *be able to*, as the following example illustrates:

(12) As a cable subscriber, I’m able to view her station, Live TV.

Usually *get to* has a causative meaning. In (10) the membership allows you to enjoy the ICA’s art and ambience; in (11b) the subject’s job makes it impossible for him to see the races.

*Get to* does not necessarily imply intention on the part of the subject. That is why the verb that follows *get to* is not presented as the direct result of the subject’s action:
(13) a. Let’s hope they don’t get to hear about The Observer.
b. Meryl Street, Jessica Lange and Susan Sarandon still get to be sexy.

If we compare (13b) with (14) the implications are clearly different. The implication in (14) that Meryl Street, Jessica Lange and Susan Sarandon make an effort to be sexy is missing in (13b).

(14) Meryl Street, Jessica Lange and Susan Sarandon still manage to be sexy.

Another difference with manage to is that while manage to refers to a particular action, get to is frequently used with general or repeated actions, without referring to a specific time. That is why it collocates so frequently with frequency adverbs and expressions (e.g. often in 11b, the only times in 15a), quantifiers (e.g. a lot in 11a), and with subjects with a general reference, such as you, people, few+ noun, most+ noun:

(15) a. When both parents are working, it means that the only times you do get to talk to the teacher are on parents’ nights.
b. With a checkpoint at the marina entrance, few ordinary Cubans get to see such places.

The pattern get to possesses an inchoative feature, which accounts for its use to mean that something is achieved as the result of a gradual development. While manage to tends to be used with adverbs and phrases referring to a specific time, get to is sometimes used with phrases which refer to a period of time.

(16) a. I would like to get married eventually, but only after living with someone. That’s how you get to discover people’s bad habits.
b. Last night I didn’t get to sleep until seven in the morning.
c. You only get to pull one of those things off after years and years of training.
The inchoative meaning is very clear in the expression *get to be*, as the following example illustrates:

(17) How did she get to be that fat?

In summary, unlike *manage to*, *get to* does not imply intention on the part of the subject. *Get to* has an inchoative feature and expresses the meaning of having the chance rather than achieving.

In the remaining of the paper we will briefly compare the collocational and syntactic environment of two sets of lexico-modal auxiliaries which are seemingly synonymous: *be likely to*/*be liable to* and *be bound to*/*be certain to*/*be sure to*.

5. BE LIKELY TO AND BE LIABLE TO

*Be likely to* and *be liable to* are usually described as lexico-modal auxiliaries expressing epistemic modality. Dictionary definitions do not provide information about the differences in meaning between these items. The following definitions from the COBUILD Dictionary present these items as synonymous:

- **be liable to**: something that is liable to happen will *probably* happen or is very *likely* to happen.
- **be likely to**: if someone or something is likely to do something they will very *probably* do it.

However, in the following example the use of *be liable to* would produce an odd sentence:

(18) Did you have breakfast today? Then you are likely to be slimmer, work faster, feel better and make fewer mistakes at maths than your friends.

The reason becomes evident if we compare the verbs that most significantly collocate after *be liable to* and *be likely to*:
be liable to: pay, be, have, collapse, carry, change, find, indemnify, nullify, repay, compensate, engage, cause, end up, suffer, break, explode, dissolve, damage

be likely to: be, have, become, get, remain, take, make, continue, go, come, find, increase, prove, see, fall, cause, face, lead, happen, include

The verbs which collocate with be liable to seem to have a negative connotation, which is even more obvious in the list of passive verbs which typically co-occur with be liable to: shot, detained, attacked, punished, arrested, called, disappointed, exacerbated, prosecuted, expelled, fined, damaged, caught, tried, turned, taken, left, surcharged, gossiped, lynched, conscripted, nabbed, traversed, subverted, tarred, wafted. This reflects that be liable to has a negative prosody. Semantic prosody is the connotations that a word has owing to the fact that it co-occurs typically with a set of words that share a semantic feature (Sinclair, 1987, 1991). The predominance of collocates with a specific value (bad/good) imposes a default interpretation on neutral terms (Hanks, 1996: 87).

The following examples illustrate the negative evaluation conveyed by be liable to:

(19) a. As a «persona non gratis» she has no right to health care and is, therefore, liable to have her life support unit cut off at any time.
   b. ..weather forecasts and advice on where the worst travel and weather conditions are liable to be today.

Thus, the main difference between be liable to and be likely to is that be liable to has a negative prosody. Be liable to always implies the writer’s or speaker’s negative evaluation, since its frequent collocation in a negative context confers it a negative meaning. The restriction of be liable to to utterances where a negative potential event is presented explains that the number of occurrences of be liable to in the corpus is considerably smaller than the number of occurrences of be likely to (896 occurrences of be liable to vs. 36,568 occurrences of be likely to).

This is not, however, the only reason why be likely to is more appropriate than be liable to in example (18). Be likely to collocates
frequently with verbs such as *increase*, *rise*, and with comparative adjectives. The items that most significantly collocate with *be likely to* are *more*, *less* and *most*. The relation of *be likely to* to the idea of quantity is illustrated in the following examples:

(20) a. Panicky user reactions were likely to cause more problems than the viruses themselves.
b. Evidence shows business taking advice are more likely to survive.

6. **BE BOUND TO, BE CERTAIN TO AND BE SURE TO**

As happens with *be likely to* and *be liable to*, it is difficult to distinguish between *be bound to*, *be certain to*, and *be sure to* just by looking at the definitions in the dictionary. The COBUILD Dictionary provides the following definitions of these items:

- **be bound to**: if you say that something is bound to happen or that someone is bound to do something you are saying that it is *certain* to happen or be done= *sure to*
- **be certain to**: if you say that something such as an event or situation is certain or certain to happen, you mean that it is generally accepted that it will definitely happen.
- **be sure to**: if you say that something is sure to happen you mean that it will *certainly* happen.

The number of occurrences of these items in the corpus is as follows: *be bound to* (4,505), *be certain to* (2,330) and *be sure to* (2,482). The higher frequency of *be bound to* may be the reason why this form tends to be included in descriptions of lexico-modal auxiliaries. *Be bound to* can be used to express not only epistemic modality but also deontic modality, although this second use is much less frequent. There are some differences in the use of these items to express epistemic modality.

The following lists display the verbs that most frequently occur as right collocates of each pattern.
**be bound to:** be, have, happen, come, cause, make, increase, get, fail, follow, lead, become, take, suffer, find, raise, bring, affect, create, fall

**be certain to:** be, have, provoke, become, come, make, play, face, bring, contribute, increase, fuel, win, get, go, take, raise, cause, attract, raise

**be sure to:** be, have, make, follow, include, go, get, find, use, check, provide, take, come, bring, keep, give, ask, see, read, give

The verbs that most significantly collocate with *be bound to* indicate that this item has a negative prosody. As can be seen, some verbs are clearly negative (e.g. fail, suffer), while others have a negative prosody themselves. *Happen* and *cause*, for instance, are verbs which always collocate with negative nouns (e.g. accidents happen, cause problems), as Sinclair (1991) and Stubbs (1996) have shown:

(21) The package is bound to cause a row in Labour’s ranks.

Even when the following verb is not negative itself the use of *be bound to* indicates that the future event which it expresses is negatively evaluated:

(22) Third world countries are bound to increase their greenhouse gas emission as they industrialise.

The negative connotation may also be conveyed by the subject:

(23) Crime is bound to increase now that the metro and suburban lines have reopened.

*Be bound to* tends to collocate with non-human subjects. It occurs most often in the pattern *there+ be bound to+ be*. The nouns which tend to follow this pattern also reflect the negative prosody of this form: dissatisfaction, anxieties, uncertainty, ammunition, controversy, tensions, concerns, alarm, speculation, problems, fears, costs.
(24) a. There are bound to be times in our lives when we are under stress.
b. There is bound to be a massive outcry if the nation’s best known car maker is sold abroad.

When *be bound to* occurs with a human subject, this tends to be a subject with a general reference, such as *you, people, we* (e.g. 25).

(25) a. When you play nearly 200 boards over seven sessions you are bound to have a few little accidents.
b. Being gifted people are bound to think you are weird.

Although *be certain to* may also occur with existential *there*, this happens much less frequently than with *be bound to*.

(26) There is certain to be a strong demand for the transport union to switch its votes at the last minute.

The item *be bound to* has a connection with causal patterns, which is reflected in its significant collocation with words such as *so, such, because*. *Be bound to* is frequently used for deductions, with a meaning similar to epistemic *must*. This confers it an implication of inevitability which has been pointed out by some linguists (Palmer, 1987; Dixon, 1991).

(27) a. The movie has been so comprehensively marketed that it was bound to be a commercial triumph.
b. If you are into investment, you are bound to be interested in numbers, specially those with a percentage mark after them.

*Be certain to* collocates very significantly with *almost* (t-score of the association: 22.725987) and *virtually*. Thus, the implication of inevitability is missing here.

(28) The next prime minister is almost certain to be a member of the LDP, the largest single party in the Diet.
There are also differences with regard to the type of verbal groups which follow *be certain to* and *be bound to*. *Be certain to* is more frequently used with perfect groups than *be bound to*. Thus, *be certain to* is more often used to express certainty regarding a past action.

(29) a. The efforts of Knight and Shinnick were certain to have caught the eye of the umpires as they allocated their points for the Peter Burge
b. The test is certain to have alarmed Japan.

*Be sure to* can be used with a similar meaning to *be bound to* or *be certain to*, as the following example illustrates:

(30) With bookings depressed in all except the top strata of the market, there are sure to be company collapses this season.

However, *be sure to* seems to express higher involvement. More than half the occurrences in the corpus (1,490) are imperative forms:

(31) a. You’ll have plenty of time to take photographs, so be sure to have your camera ready.
b. Be sure to put in your post code: it is used by UCAS to code and process your application.

*Be sure to* also collocates very significantly with modals:

(32) a. With our comprehensive, yet flexible service offering, you can be sure to find the support you need.
b. In many European spas, you must be sure to make your medical appointment as soon as you arrive.

The subject that most often collocates with *be sure to* is *you*, with a specific reference.

(33) If you skip meals, you are sure to fill up on high-fat snacks.
Be sure to is used to express prediction with a similar meaning to will. It is related to the speaker’s subjective opinion, rather than to a process of inference.

(34) a. Anyone on holiday in France is sure to be close to a casino.
b. Girls are big winners this summer with two movies they are sure to find particularly appealing.

In summary, be bound to, be certain to and be sure to are used to express certainty but there seem to be differences in the degrees of certainty and in the evidence for the certainty. Be bound to is frequently used in the context of a result relation between two actions, with the implication of inevitability. Be sure to seems to be more subjective and has a prediction meaning.

7. CONCLUSIONS

Descriptions of modality usually focus on a few linguistic items, offering the learner a much simplified view of the different devices that a user has at his/her disposal to express different modal meanings. Stubbs (1996) argues that the features that express modality in English occur at different levels of language and proposes bringing all these features together in a «modal grammar of English». This requires a description of the different ways to express modality with a high degree of delicacy, only possible with the use of large corpora and computer-based techniques.

In this paper we have illustrated the type of corpus-based descriptions that could inform a pedagogic grammar in the area of modality. We have shown that items that tend to be regarded as suppletive to modals are not such, but express specific modal meanings. For instance, manage to implies actuality, achievement and counterexpectation. We have also shown that forms that are presented as synonymous are not such either, and that this presentation can lead to misunderstandings. If the learner uses be liable to as a synonym for be likely to he/she will express a negative evaluation, without intending to do so.
There are some variables that are relevant when expressing modality, but are not usually taught. For instance, this paper suggests that when teaching the expression of ability in English the variable potentiality/actuality should be paid more attention. Similarly, when concerned with epistemic modality the learner should be made aware of the devices that the writer/speaker can use to express his/her evaluation of the possible event or situation.

Sinclair (1997: 27) regrets that much of the evidence provided by corpus analysis has not yet been incorporated in «the leading descriptions of English which emanate from formalist linguistic theories» and that «most of the patterns relevant to the accurate description of English» have not yet been recognised and presented in the published grammars of English. The analysis of lexico-modal auxiliaries in this paper is not intended as material to be presented to the learners, but should be seen as an illustration of the kind of reference material the teacher can use when teaching modality. In the elaboration of teaching materials, authors have to use the current grammatical descriptions of English, most of them deriving from the analyst's intuitions about language. Descriptions based on the analysis of large corpora are more reliable and should be the base of teaching materials.

NOTES

1. This class of verbal patterns has been given different names, among others, «lexico-modal auxiliaries» (Downing and Locke, 1992), «quasi-modal» (Coates, 1983), «phrasal modals» (Francis et al., 1996), «semi-auxiliaries» (Quirk et al., 1985), «semi-modal» (Dixon, 1991; Palmer, 1987).
2. I'd like to express my gratitude to Collins COBUILD for the permission to use this corpus. The examples that appear in the paper have all been taken from this corpus.
REFERENCES


