Abstract
This paper reflects on the nature of the contextual meaning that is often associated with modal verbs. Four examples are given of contextual effects that have been discussed in the literature: pragmatic strengthening and weakening, dynamic implication, strength of the modality and subjective vs. objective modality. It is argued that these four cases are not entirely similar when they are considered from the perspective of the semantics-pragmatics interface and the categorisation of modal meaning. This study shows what unites and what differentiates these four facets of the ‘pragmatics’ of modals.

Keywords: modal verbs, contextual meaning, pragmatics-semantics interface

1. Introduction
Modal meaning is determined in context. While this is an uncontroversial claim, I would like to make explicit the different types of contribution to modal meaning that the context makes and to reflect on the impact of the different contextual features on categorisation. The paper will be structured as follows: I will first give some examples of the different ways in which the context is needed to pin down the message that is communicated, and in particular, to pin down the meaning of the modal verb. I will then show that the status of the contextual contributions is different: while some may be captured in terms of context-dependent semantics, others are ‘truly’ pragmatic in nature, in the sense that the meaning distinctions are important for the message communicated, but they are not important from the perspective of determining the explicature.

2. The role of the context in determining the meaning of modals: Some examples
2.1 Pragmatic strengthening and weakening
A first set of examples illustrates what Huddleston and Pullum (2002: 176, their examples below) have called pragmatic strengthening and pragmatic weakening:

(1) You may leave now. (boss talking to his secretary)
(2) You must have one of these cakes. (at an afternoon party)
The concepts are quite transparent. While *may* is a possibility modal, in the context in which the sentence is uttered in (1), its meaning has been strengthened into modal necessity: the example “will be construed as an instruction, not mere permission” (ibid.: 177). The example in (2) illustrates the opposite pragmatic effect: *must* no longer communicates its unmarked meaning of necessity, but rather that of possibility: ‘it will be taken as an offer rather than an order’. (ibid.: 177) The following are some further examples from the British National Corpus (BNC):

(3) Alright, yes. So, you’re putting her on hold, yes, so you can put your handset down. Right, if you *can leave* your handset at the side, you can see that it matures after 75 seconds, brilliant. erm Call parking, right. Okay, right, call parking. (BNC, telephone system training course)

(4) The British murmur ‘You *must come* and stay with us some time,’ and when they part they say ‘Let’s keep in touch’ and they certainly don’t mean it, but it greases the wheels of intercourse. (BNC)

A further observation is that the combination of the modal with another lexical item may enhance the strengthening/weakening effect, as in the following examples:

(5) Of course, this way of looking at things reflects my own bias as an only partially reconstructed neurochemist; in practice the neurophysiology *may well* lead -- indeed, in the important cases of Aplysia and long-term potentiation discussed next, has led -- the biochemistry and cell biology, pointing the way towards cells whose electrical properties and therefore their biochemical properties change during memory formation. (BNC)

(6) In these days of widespread family planning, you *might well* think the number of unwanted pregnancies is on the decline. You would be wrong. (BNC)

In (5) it is *may well*, and in (6) it is *might well* that trigger pragmatic strengthening. Even though the situation is, strictly speaking, presented as possible, the context makes it clear that there is a certain degree of inevitability and therefore a tinge of necessity or even of factuality.

A final observation is that certain clauses with modal verbs have developed a formulaic status and in this way no longer seem to communicate the meaning they literally express. *If I may* is among the well-known cases where the *if*-clause is no longer a genuine request for permission. Rather, permission is taken for granted. This
type of example is different from the previous ones in that the meaning is not weakened from necessity to possibility or strengthened from possibility to necessity; the special feature here is what is strictly speaking a request for permission boils down to taking permission for granted.

(7) Let me develop the point *if I may* Jonathan. (ICE-GB)¹

The speaker does not wait for Jonathan to agree; he simply holds the floor and continues talking. This example touches upon illocutionary force, which is one of the key issues at stake in discussions of dynamic implication.

2.2 *Indirect speech acts: Dynamic implication*

Palmer (1990) introduces the concept of ‘implication’ when discussing dynamic modality. He writes that the examples that follow do not, in the first place, communicate possibility or ability, but “suggest, by implication, that what is possible will, or should, be implemented” (ibid.: 86):

(8a) I *can* tell you the reference, if that’s any help, of the letter. (“It is regularly used with *I* or with exclusive *we* (‘I and he’, ‘I and they’ etc.) to make an offer by the speaker or speakers.”)

(8b) I’ll send Lewis down tonight to see what he *can* pick up in the pubs of Port St Mary and then he *can* call to see you. (with the third person pronoun “the speaker speaks on behalf of someone else, but leaves it vague whether the initiative comes from him or not.”)

(8c) You *can* certainly ring me back this afternoon – there might be something. (“with a second person pronoun, it suggests action be taken by the person addressed.”)

(8d) Do come early and we *can* have a drink. (“If *we* is used inclusively (‘you and I’, ‘you and we’) it combines offer and suggestion.”)

Here, clearly, the meaning effect is captured in terms of the illocutionary force of the utterance in which the modal features. Collins (2009) gives similar examples with *can, could* and *might* and argues that they should be set apart in a separate class of dynamic modality because they imply a directive speech act (see also Facchinetti 2002):

¹ICE-GB refers to the British English component of the International Corpus of English.
On the pragmatics of modal verbs

(9a) And you may remember that the organisations the republics were in the Soviet Union competed in the recent Winter Olympics under the title Commonwealth of Independent States. (ICE-AUS) (Collins 2009: 96) (“The literal meaning of may [...] is dynamic, but a more satisfactory interpretation requires reference to its directive illocutionary force.”)

(9b) Well I can write on your behalf. (ICE-AUS) (ibid.: 104) (offer)

(9c) In your letter to me you say that “it is not the ownership of the NRMA that is under review.” Could you explain that to me please? (ICE-AUS) (ibid.: 116) (request)

(9d) Now if that is the form that your publication is going to take um then one of the things that you might also think about as an adjunct to your address is the use of audio-visuals or at least visuals. (ICE-AUS) (ibid.: 116) (suggestion)

The authors cited are not the only ones to have signalled examples of this type, in which the modal meaning of (various types of) possibility of the verbs is superseded by a characterisation in terms of the illocutionary force of the utterance in which they occur. Examples of this type have been discussed in several branches of linguistics: they are pointed out in grammars, and feature in work on discourse analysis as well as in the pragmatics literature. As already hinted at by Palmer (1990), and as formulated more firmly by Aijmer (1996: 128), and Leech (2014: 315), it is specific ‘conventional forms’ or combinations that come with a specific, ‘conventional’ illocutionary force. One may wonder what specific contextual effect is at stake here, or what it is that has led researchers to signal out these uses in discussions of the meaning of modal verbs. After all, all utterances have an illocutionary force, and it is not only utterances with modals that are associated with a direct as well as an indirect speech act. It seems that the ‘pragmatic effect’ at stake in examples of this type is quite different from that of pragmatic strengthening and weakening, which appears to modulate the meaning of the modal verbs far more dramatically.

2.3 Strength

A further feature of modals is that of strength. In English grammars, pairs of necessity modals are often teamed up and the differences between them are explained in terms

---

2 ICE-AUS refers to the Australian component of the International Corpus of English.
3 See Ruytenbeek (2017) for a critical overview of experimental work on the comprehension of indirect requests.
of the strength of the modality. In the following sets of examples, for instance, one modal (have got to in (10), be to in (11)) is said to communicate a more forceful necessity than another (should in (10), ought to in (11)) in the sense that the pressure on the addressee to bring about the situation referred to is more compelling when the ‘stronger’ modal verb is used:

(10) I’ve got to/should call my mother – it’s her birthday. (Depraetere & Langford 2012: 311)

(11) She is to/ought to report directly to me in such circumstances (ibid.)

Clearly, all of these sentences communicate non-epistemic necessity and the parameter of strength does not in itself result in semantic meaning distinctions in the examples in (10) and (11): here, it does not bring about truth-conditionally distinct types of necessity. This observation notwithstanding, strength has a major role to play in differentiating contexts of use of modal verbs. In the examples just given, it is the lexical item in itself that has a specific strength; it is not the context that bestows a specific strength on the modal. While views on the strength of the sets of verbs in the examples in (10) and (11), even when they are not used in context, are quite unanimous (have got is stronger than should; be to is stronger than ought to), as soon as one draws the whole range of root necessity verbs into the discussion, positioning them on a continuum of strength is a lot more delicate. Verhulst, Depraetere & Heyvaert (2013) address should, ought to and be supposed to and they observe that opinions in the literature on where these modals feature on the scale of strength diverge and conflict. Once one moves beyond the clear, ‘inherent strength’ minimal pairs (Verhulst, Depraetere & Heyvaert 2013: 211), operationalizing the notion of strength is a challenge. In the paper just cited, strength is measured in terms of contexts of use, that is, in terms of the possibility of non-compliance and the gravity of potential consequences of non-compliance, the latter necessarily involving a culture-specific and delicate assessment (ibid.). Alternatively, one could try to capture ‘contextual strength’ (Verhulst, Depraetere & Heyvaert 2013: 220) in terms of the speech acts performed by the utterances in which different verbs typically feature, different types of directives being indicative of a more or less pressing necessity.

The observations on strength have so far highlighted the following points: first, one might try to attribute inherent, context-independent strength to specific modals, with a

---

4 See Sbisà (2001) for an insightful discussion of illocutionary force and strength.
continuum from ‘very strong’ to ‘weak’. A scale such as the following might result from an approach along these lines⁵:

<table>
<thead>
<tr>
<th>very strong</th>
<th>strong</th>
<th>weak</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>must</em></td>
<td><em>have to</em></td>
<td><em>be supposed to</em></td>
</tr>
<tr>
<td><em>have got to</em></td>
<td><em>ought to</em></td>
<td><em>should</em></td>
</tr>
<tr>
<td><em>be to</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

However, this leaves us with modal verbs such as *want to*, *need to* and *need*, the location of which on the cline is not straightforward. A second issue, with respect to the modals that are positioned in the same area on the scale of modal strength, is that of determining the contextual clues which make it possible to differentiate the modals, either in terms of more delicate distinctions concerning modal strength or in terms of other features. Neither the former nor the latter is a straightforward task. With respect to a more delicate measurement of strength, one might want to look for contexts in which, say, each of the very strong modals is typically used (along the lines of Verhulst, Depraetere & Heyvaert 2013, for instance). As observed in section 2.1, even strong modals may be pragmatically weakened, so this is a factor that needs to be looked at as well: getting a more accurate view on how often this happens might also shed further light on the meaning potential of the different modals. Or, alternatively, one might want to argue that the criterion of strength does not necessarily discriminate modals and that there are other distinguishing features at play that differentiate context of use of all ‘very strong’ modals. The question that arises here in general is whether inherent, context-independent strength should be differentiated from strength that is determined in context. A difference in ‘strength’ occasionally results in semantically distinct utterances (*must* will not be used to make a recommendation, and *should* will not be used to enforce a law). The following example is a recent case in point reported in on the media, which shows that the strength of a modal can impact dramatically on the meaning communicated⁶:

---

⁵ See Verhulst, Depraetere & Heyvaert (2013) for a more delicate analysis of differences in strength among *be supposed to*, *ought to* and *should*.

⁶ I’m grateful to Giuditta Caliendo for drawing my attention to this example, which is online at the following address: http://www.politico.com/story/2015/12/paris-climate-talks-tic-toe-216721.
After years of preparation and two weeks of tireless negotiations, after all the speeches and backroom compromising, one misplaced word brought the momentum toward a historic global deal on climate change to a halt Saturday — for at least a few hours.

Obama administration lawyers discovered early in the day that the latest draft text had a potentially deal-killing tweak: Deep into the document, in Article 4, was a line declaring that wealthier countries “shall” set economy-wide targets for cutting their greenhouse gas pollution.

That may not sound like such a headache-inducing roadblock, but in the world of international climate negotiations, every word counts. In previous drafts, the word “shall” had been “should” — and in the lingo of U.N. climate agreements, “shall” implies legal obligation and “should” does not. That means the word change could have obliged the Obama administration to submit the final deal to the Senate for its approval. And inevitably, the GOP-led chamber would kill it on sight.

In other cases though, the selection of the modal with the wrong ‘strength potential’ will merely result in contextually inappropriate sequences (as in (10) and (11)).

2.4 Subjective vs. objective modality
The distinction between ‘objective modality’ and ‘subjective modality’ is another opposition that is very much in the foreground in discussions of the meaning of modal verbs. For instance, should has been argued by some to be somewhat more subjective than ought to (Declerck 1991, Larreya & Rivière 2005: 126). Likewise, must is said to be subjective in the sense that the necessity emanates from the speaker, unlike have to, for instance, which is considered to be more objective (Huddleston & Pullum 2002). In a similar way, may communicates so-called speaker/hearer permission, while can communicates neutral or objective permission (Larreya & Rivière 2005: 96, Quirk et al. 1985):

See, for instance, Verstraete (2001) for a very insightful discussion of the notions of subjective and objective modality. As is the case for all the topics addressed in this short paper, it is only possible to touch upon aspects relevant to the main topic of the paper; each of them obviously involves more encompassing research questions.
(13a) I *ought to* congratulate her, but I don’t think I will. (‘*Should* would sound odd here: it would be strange to give yourself advice and then add that you were not going to follow it.’) (Declerck 1991: 377)

(13b) You *should* act according to your own conscience. (ibid.)

(14a) You *have to* come in now. (‘I’m likely to be relaying someone else’s instruction’) (Huddleston & Pullum 2002: 205)

(14b) You *must* come in. (‘it’s more likely I am myself telling you to.’ (ibid.))

(15a) You *may* leave when you like. ‘[= ‘I permit you to …’]’ (Quirk et al. 1985: 224)

(15b) You *can* leave when you like. ‘[= ‘You are permitted …’], which can mean permission in a more general and impersonal sense’ (ibid.)

As in the case of strength in the examples in (10) and (11), the feature of subjectivity in itself does not seem to result in semantic distinctions, in the sense that the basic modal meaning is that of necessity ((13a) to (14b)) or of possibility (or more precisely, permission ((15a) and (15b)), irrespective of whether the modal is considered to be subjective or objective. Replacing one modal by the other in the set will result in utterances that are less appropriate or acceptable, but the semantics of the utterances remain overall the same.

A number of observations must be added: first, a quantitative analysis of the sources associated with *should* and *ought to* (Verhulst, Depraetere & Heyvaert 2013) shows that both *should* and *ought to* are typically associated with a subjective source. In this paper, the distinction between subjective and objective modality has been operationalised in terms of the source of the modality: if it is the speaker who is at the origin of the possibility/necessity, the modality is said to be subjective; if it is circumstances or a rule, for instance, that make it possible/necessary for a situation to actualise, the modality is said to be objective. The data in Depraetere and Verhulst (2008) show that *have to* is significantly correlated with a circumstantial source as well as with a necessity resulting from a rule or a regulation. *Must* is likewise typically used in the latter context and also when a situation is necessary in order to reach a specific goal or purpose, as in the following example:

(16a) And the free world has reacted quickly to this momentous process and *must* continue to do so if it is to help and influence events. (ICE-GB)

---

8 See e.g. Cappelle and De Sutter’s (2010) paper on *should* and *ought to* for a different approach to the operationalisation of subjectivity for corpus analysis.
(16b) *To reach it on foot you must navigate hundreds of miles across a perishing sub-zero landscape of blizzards, open water, crevasses and drifting ice.* (ICE-GB)

In other words, the traditional generalisations need to be fine-tuned. *Ought to* and *should* are similar in the sense that they are typically associated with a subjective source, so this begs the question of what differentiates them. Verhulst, Depraetere and Heyvaert (2013) argue that one parameter that differentiates *should* and *ought to* is that of target: who or what the situation to be brought about is beneficial to. It is shown that in the case of *ought to*, it is an instance other than the speaker who benefits from the actualisation of the situation, whereas *should* does not reveal a similar orientation towards the addressee or a third party. Put differently, in order to differentiate the meaning of, for instance, necessity modals, a wider range of contextual features needs to be taken into account. Finally, while spelling out the subjective/objective parameter in terms of modal source enables us to differentiate the semantic profile of modal verbs, and while statistically significant patterns can be observed, most modals are compatible with the total range of sources. As was pointed out before, in each of the three sets of examples given in this section, the modal meaning remains constant, irrespective of the source the modal verb is associated with. It is not possible to find examples similar to (12) in which the parameter of strength dramatically changes the semantics of the sentence: the use of, for instance, a subjective necessity modal rather than an objective necessity at most affects acceptability judgements.

3. **Context-dependent semantic features vs. pragmatic features**

The four types of meaning distinctions mentioned above do not exhaust the list of facets of modal meaning that are determined in context. Still, they bring up some interesting questions, and they will, in this section, be used to show that it is necessary to make explicit the semantics-pragmatics interface and what it means for a feature to contribute to a semantic distinction or a pragmatic distinction. Given the scope of the paper, the reflections here are necessarily programmatic and result in questions to be explored rather than in definitive answers to them.

A first observation is that it is not always made entirely clear in the empirical literature whether the meaning distinctions are semantic or pragmatic in nature, or at least, what exactly is meant when one labels a feature as capturing the semantics
rather than a pragmatic feature of modal verbs. Recent advances in pragmatic theory and corpus linguistics have resulted in different views on where the borderline should be drawn and even on the necessity of drawing a line. While all scholars agree that modal meaning is to a certain degree determined in context, they do not necessarily spell out this view in more detail in terms of a specific theoretical stance to the semantics/pragmatics interface. A few quotes from leading scholars will show what is at stake. In the introduction to the second edition of *Modality and the English modals*, Palmer (1990) writes: ‘the terms ‘meaning’, ‘semantic’ and ‘semantics’ are used throughout the book in a general sense, to include what might also be included under ‘notions’, ‘use’ and ‘function’, except where a specific distinction is drawn’ (ibid.: 2-3).

Consider the following observation by Gärdenfors (2006):

“What could be the relevant tools for analyzing the meaning of such modal expressions? First of all, it is unnatural to ask for reference of modal verbs, let alone their reference in other possible worlds. The modal verbs have a role not in relation to the sentence in which they occur, but in relation to the speech act in which they are uttered (Austin 1962, Searle 1979). Consequently, the main linguistic objects of the analysis will be speech acts. The meaning of modal verbs is thus more a matter of pragmatics than of traditional (referential) semantics.” (Gärdenfors 2006: 162).

This author offers an analysis of deontic uses of modals in terms of power relations: the core meanings of the modal verbs are considered to be ‘determined by the power structure of the speech act situation in which they are used’ (ibid.: 171). In this analysis, pragmatics is seen as relating to the use of expressions, and as modals cannot be studied without considering their use, the conclusion is that ‘the traditional distinction between semantics and pragmatics may not be possible to sustain’ (ibid.: 172). Likewise, in Construction Grammar, for instance, the key insight is that constructions are form-function pairings, and that the functional level is holistic and does not necessarily require a line to be drawn between the traditional layers of meaning.

Another view is that according to which semantics refers to the truth-conditional content of the utterance, pragmatics being reserved for meaning effects that are communicated but do not impact on truth-conditions. Contextualist approaches, such as the relevance-theoretic model advocated by Carston (2015) or that of truth-
conditional pragmatics argued for by Recanati (2010), have shown that the proposition that is explicitly communicated (the ‘explicature’ as it is called in Relevance Theory) involves quite more input from the context than had been assumed by Grice: apart from contextual input to assign reference and to disambiguate, certain expressions need to be saturated ((17a) and (17b)) or are subject to the process of free pragmatic enrichment ((18a) and (18b)). On this view, in the examples in (17), the information in brackets is determined in context and is part of what is explicitly communicated. The additional information is required to arrive at a full proposition:

(17a) The winners each get £1,000. [of what?] (Carston 2015: 199)
(17b) It’s hot enough. [for what?] (ibid.)

In the examples in (18a) and (18b), there is a proposition that is truth-evaluable but is not the one that is intended by the speaker; the bracketed information is likewise part of the explicature, which is ‘an assumption which is communicated (speaker meant) and is developed out of one of the encoded logical forms (semantic representations) of the sentence uttered (Sperber & Wilson 1995 [1986]: 182 in Carston 2015: 198).

(18a) Something has happened [important, unexpected, strange, …] (Carston 2015: 199)
(18b) Louis has always been a great lecturer [since she became a lecturer]. (ibid.: 200)

While this selection of potential theoretical stances is admittedly sketchy, it does highlight the challenge to be faced when pinning down the meaning of modals. A non-controversial semantic distinction is that some modals communicate necessity while others communicate possibility. A further relatively non-controversial semantic distinction is that between epistemic and non-epistemic meanings. Views are already less unanimous when the next step (not addressed in this paper) is considered: are the different meanings that, for instance, possibility modals can communicate (such as permission, ability, and dynamic modality (Huddleston & Pullum 2002)), semantically distinct? While some have argued that possibility modals have one unitary meaning; others maintain that modals are polysemous⁹. At this level, a further question is whether it is possible to pin down similar differentiated meaning categories on the non-epistemic necessity side. In general, non-epistemic necessity

⁹ See Depraetere (2014) and Depraetere & Reed (2011) for an in-depth discussion of this question.
appears as more of an organic block in analyses of modal verbs, so the question here is whether it makes sense to distinguish, for instance, between subject-internal necessity (I must have that dress), and subject-external modality (I must return the form by the end of the month), or, for instance, between deontic necessity (You must pay me back) and non-deontic necessity (Bills must be settled by the end of the month). A further level of meaning involves the distinctions taken stock of in the previous sections: are they pragmatic in nature in the sense that they are not part of the explicit content in Contextualist terms? Or do they impact on the truth-conditional content, despite the fact that they are determined in context? While some of the meanings can indeed be captured in terms of implicatures (indirect speech acts, pragmatic strengthening and pragmatic weakening), others (illocutionary force, the strength of the modal, the subjective/objective nature of modal verbs) cannot. It remains to be seen though, to what extent the latter category of features determines the semantic profile of the modal verbs in the sense that they are part of the explicature.

A further observation relates to the level (lexical or sentential) at which the features are at play: indirect speech acts and illocutionary force bear on the utterance in which the modal is embedded while subjective/objective modality and strength of the modal pertain more exclusively to the modal verbs as such. It was argued in section 2.3 that certain necessity modals have a context-independent clear profile in terms of the strength of the necessity they express while others are harder to categorise. Moreover, strength can also be determined in terms of the contexts in which the modals are embedded, so it seems that while strength is a distinguishing, semantic feature in some cases, further thought needs to be given to ways in which this concept can be operationalised for empirical analysis in order to pin down the inherent strength of a modal.

These brief observations have shown that even though modal meaning has received a lot of attention, the analyses can still be improved in terms of spelling out the nature of the features involved from the perspective of the semantics-pragmatics interface, and this obviously requires a specific theoretical stance with respect to the line that is to be drawn. Clearly, further empirical research into the ways in which the context impacts on the meaning that is communicated by an utterance with a modal is needed to inform the decision-making process.
References


