On the semantics and pragmatics of Will

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ABSTRACT

Assuming that will is not polysemous but has a single unitary meaning common to all its instances, a semantic characterization will be set forth which, in conjunction with a fully explanatory pragmatic machinery, will account for the different interpretations of utterances containing this modal.

KEY WORDS: Relevance Theory, WILL, semantics, pragmatics, monosemantic approach.

1. INTRODUCTION

This paper provides a semantic and pragmatic characterization of will within the Relevance Theory framework (Sperber and Wilson 1986, 1995) with the aim of filling the gap left by Groefsema’s (1995), Berbeira-Gardón’s (1992, 1996) and Papafragou’s (2000) analyses of the English modals can, may, must and should. Notwithstanding the merits of Groefsema’s and Papafragou’s frameworks, one would expect at least some attempt at an analysis of will in a work dealing with modality in English. In this paper a monosemous account of this verb will be proposed that will hopefully remedy this empirically unmotivated neglect.

The paper is organized as follows: section 2 starts with a brief review of previous relevance-theoretic approaches to the semantics and pragmatics of will; section 3 introduces the framework within which the analysis proposed will be carried out. At the end of this
section, a unitary linguistic meaning for *will* is proposed; section 4 will attempt to defend this semantic proposal; finally, section 5 shows how this meaning interacts with contextual assumptions to yield the variety of interpretations of utterances containing *will*.

2. PREVIOUS RELEVANCE-THEORETIC ACCOUNTS

In accounting for the semantics of *will* two approaches may be adopted: a monosemantic approach, which assigns a meaning to this modal in isolation from a specific context of use (Ehrman 1966, Haegeman 1989, Klings 1993, Nicolle 1998, Perkins 1983, Walton 1988), and a polysemantic approach, which regards the meaning of *will* as being largely, if not entirely, dependent upon a specific context of use (Coates 1983, Palmer 1990). This section does not pretend to offer a complete and detailed criticism of all these proposals. Rather, what follows is a partial and selective account of those following the relevance-theoretic framework.

The first relevance-theoretic account of *will* is Walton’s (1988). He proposes that *will* has ‘anticipation’ as its unitary semantic content and uses the paraphrase ‘it is anticipated that *p*’ to express its propositional operator function (Walton 1988: 50).

Walton himself admits that “labels such as *anticipation* hide real semantic distinctions, and that the precise meaning of *anticipation* is far from clear” (Walton 1988: 51). He argues that “the explanatory power of these paraphrases will be shown to be semantically adequate in clearing the undergrowth of ‘contextual meaning’ which surrounds the modals, and in dealing with a wide range of issues in modal pragmatics” (Walton 1988: 51). He unfortunately does not offer any examples of how the notion of ‘anticipation’ interacts with contextual assumptions to yield the different interpretation of utterances containing *will*.

Haegeman (1989) argues that this modal encodes procedural information: “*Will* signals that the hearer should extend the immediately accessible (present) context for the processing of the proposition and should process the utterance against future propositions” (Haegeman 1989: 305). The main problem with
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Haegeman’s proposal is that *will* is future-oriented. The view held by Klinge (1993) and Nicolle (1997, 1998) that this modal encodes potentiality rather than futurity would seem to be more convincing.

Assuming that the English modals encode ‘potentiality’, Klinge (1993) proposes the following procedural meaning for *will*:

*Will*: The situation representation turns out to be a true description of a world situation.

where the world situation can be a true description of either an agent-event or a world-event (thus explaining the difference between root and epistemic interpretations) and the situation representation may have past, present or future time reference. Hence, *will* does not have future time reference as part of its semantics.

Klinge’s approach seems fundamentally correct, and the paraphrase he suggests for this verb is similar to the one proposed at the end of this section, although the rationale behind this approach will be rather different.

Finally, Nicolle (1998) also argues for a procedural analysis of *will*. According to him, “the semantic field of *will* can be characterized as ‘potentiality’, that is, *will* encodes information to treat the situation or event described by an associated utterance as unverified or irrealsis”. He also points out that “this characterization of *will* is atemporal: future time reference is not considered part of the semantic content of *will*”. However, as shall be shown in the next section this characterization would seem to also be applicable to the rest of the modals, and is not exclusive to *will*.

This paper argues that the procedural semantic content of this verb is as follows:

*Will*: $p$ is true, and the world type is potential.

This semantic content will be defended in section 4 and the ways in which it is pragmatically enriched to yield the different interpretations of utterances containing this verb will be discussed in section 5.
3. THEORETICAL COMMITMENTS

The approach adopted in developing a semantic and pragmatic characterization of will is the relevance-theoretic one set forth in Berbeira-Gardón (1992, 1996a), where, following Wilson and Sperber (1988)’s analysis of non-declarative mood, it was argued that modalized sentences containing can, may, must and should are semantically specialized for the representation of potential worlds. These are defined as those worlds compatible with the individual’s assumptions about the actual world which can be, have been or become actual themselves. The above-mentioned works claimed that this notion (which is shared by all the modals) together with the procedural information they individually encode provided us with a fully explanatory account of these verbs.

In the interpretation process the logical form of an utterance containing a modal is developed in a process of inferential enrichment which uses information from context in order to arrive at a propositional form. The inferences so made are called explicatures. These are constructed in accordance with the principle of relevance, that is, the utterance must be processed in such a way that its contextual effects are greatest and compensate for the effort involved in processing it.

In this model, the root-epistemic distinction is accounted for in terms of the relevance-theoretic divide between descriptive and interpretive use. Consider the following examples:

(1) She can speak fourteen languages.
(2) John may be in his office.

In (1) the speaker is entertaining the proposition expressed as a truth-conditional description of a potential state of affairs ($I_p$, She speak fourteen languages) compatible with the speaker’s assumptions about the actual world, whereas in (2), the proposition expressed is an interpretation of a thought ($I_p$, John be in his office) that cannot be regarded as true since the speaker does not have cognitive access to the state of affairs described. In order to account for the difference in the way the speaker entertains the modalized
proposition, the notions of potential states of affairs and potential thoughts⁶ were introduced. These two notions form the basis for the root-epistemic distinction set forth in Berbeira-Gardón (1992, 1996a) in terms of descriptive and interpretive use: root interpretations arise when the proposition expressed is regarded as a potential state of affairs and epistemic interpretations involve a propositional form being used interpretively rather than as a truth-conditional representation of a state of affairs⁷.

A proposition represents a potential state of affairs when it is compatible with the speaker’s assumptions about the actual world and the speaker regards that this state of affairs may itself be actualized at some point in the future (Papafragou, 2000: 48). On the other hand, a given proposition is a potential thought when the state of affairs it represents fits the individual’s assumptions about the world but cannot be asserted to be true in the actual world due to the individual’s lack of full cognitive access to that state of affairs⁸.

In the case of root modality a further distinction between dynamic and deontic interpretations has traditionally been made. In this analysis, both types of interpretation involve the description of a potential state of affairs. What sets deontic modality apart from dynamic modality is that the former deals with states of affairs which are not only potential but also desirable, as in (3):

(3) You can smoke in this room.

where the proposition expressed represents a state of affairs which is both potential and desirable to the hearer. Deontic interpretations can be further subdivided according to whether the proposition expressed is desirable from the speaker’s, the hearer’s or someone else’s point of view (Wilson and Sperber 1988). It is important to note that in the case of the modals the notion of desire is not linguistically encoded but pragmatically inferred. This seems to be a straightforward way to account for the difference between (4) and (5):

(4) You can wash the dishes for a change.
(5) Wash the dishes.
As Sperber and Wilson’s (1988) analysis predicts, (5), as an imperative, encodes that the proposition expressed is entertained as a true description of a state of affairs that the speaker regards as both potential and desirable. The analysis in Berbeira-Gardón (1992, 1996) claims that an utterance such as (4) encodes simply that the state of affairs described is potential; this then is enriched into ‘potential and desirable’ as the result of inference imposed by the context and considerations of relevance. The combination of these two notions, the former linguistically encoded and the latter pragmatically inferred, makes the interpretation of (4) similar to that of the imperative and explains its less direct overtone.

To sum up, the expression of modality presents four possibilities: the propositional form of a modal utterance can be:

(a) A description of a potential state of affairs. *(Well I think there is a place where I can get a cheap kettle)*

(b) A description of a potential and desirable state of affairs. *(Oh, you can leave me out, thank you very much, You can smoke in here)*

(c) An interpretation of a potential thought. *(John may be in his office)*

(d) An interpretation of a potential and desirable thought. *(Can you pass the salt?, Can I pour you your tea?)*\textsuperscript{9}

In this analysis, (a), (b) and (c) parallel the traditional categories of dynamic, deontic and epistemic modality respectively; (d) accounts for utterances with interrogative word order containing a modal (including examples such as *Will you get your feet off my chair!*). This approach has advantages over more traditional views which have frequently been at pains to account for certain interpretations which have often been dealt with in terms of *ad hoc* explanations based on notions such as ‘conventions of use’ or ‘pragmatic extensions’.

With the approach to modality as proposed in Berbeira-Gardón (1992, 1996a) having been outlined, the analysis will now be extended to encompass the interpretation process of utterances containing *will.*
4. THE SEMANTICS OF WILL

In section 2, it was suggested that the information linguistically encoded by will could be presented as follows:

Will: p is true, and the world type is potential.

When uttering a sentence containing will, the speaker is, on the one hand, communicating that the proposition expressed is potential, while on the other hand, he is asserting that it is true. If this unitary meaning is correct, the whole range of modal concepts which this verb is capable of expressing in different contexts must be straightforwardly explainable by using the pragmatic approach previously outlined. Before accounting for the different interpretations of utterances containing will, let us consider the proposed meaning in detail.

It is held that rather than encoding futurity, will encodes that the proposition expressed is asserted to be true in a potential world. This section is devoted to substantiating these claims.

There are several arguments which show that will does not encode futurity\(^\text{10}\), the most compelling one being that the propositions expressed by utterances containing it often have present or past time reference, as the examples below illustrate:

\begin{align*}
(6) & \quad \text{In the 1920s Wilkinson Sword introduced the stroppable razor and the} \\
(7) & \quad \text{‘Empire’ range which many people will remember.} \\
(8) & \quad \text{Oil will float on water.} \\
(9) & \quad \text{Mary will be at the airport by now.} \\
(10) & \quad \text{The French will be on holiday today.}
\end{align*}

Further arguments which question the idea that will encodes futurity can be found within the relevance-theoretic approach to utterance comprehension\(^\text{11}\). The main point is that assumptions about time are a standard part of the interpretation process and are always constrained by the criterion of consistency with the principle of relevance. In the case of utterances containing will, a temporal index
must be assigned to the proposition expressed before the semantic content of the verb can be pragmatically enriched.

Turning our attention to the second claim, what does it mean when an unrealized state of affairs is said to be true? Obviously, such a state of affairs is not directly verifiable: either it has not yet happened and thus is indeterminate in truth value at the time of utterance (future events)\(^1\) or it is either objectively true or false at the time of utterance but needs future verification on the part of the speaker (past and present events)\(^2\). This is illustrated in (10) and (11) respectively:

(10) It will rain tomorrow.
(11) That’ll be the postman.

It could be argued that in neither case is the speaker epistemologically justified to entertain the proposition expressed as a true state of affairs. In fact, the factuality of prediction-based statements has been a subject of lively philosophical debate since Aristotle, and the question of whether we can anticipate with absolute certainty what is going to happen or be the case being a central issue in these discussions\(^3\).

However, it seems beyond question that communication is full of claims which, although unverified, are perfectly meaningful and may be relevant in a number of different ways. This is so, for example, when they function as motivational inputs prompting an action (e.g. taking decisions, planning actions, setting goals, etc) or a modification of a certain attitude (for example a certain belief or set of beliefs) on the part of the hearer. Such claims may be immediately relevant if they cause an adequate range of cognitive effects in the present context or potentially relevant if they provide premises that can be useful in future contingencies (Van Der Henst, Sperber and Politzer, 2002). They are thus potentially true and reflect our human capacity for prospective cognition.\(^4\) This is illustrated by the following examples:

(12) That’ll be the postman.
(13) Mary will be at the airport by now.
(14) I will come and pick you up at 7:30.
You will find a cheap computer in that shop.
I will do the shopping.

In a context in which the interlocutors are expecting a very important telegram and there is a knock on the door, the hearer, on hearing (12) may feel encouraged to go and see if it is the case that the telegram has already arrived; on hearing (13), the hearer may conclude that it is time to go to the airport and pick up Mary, and will act accordingly; (14) may be relevant by functioning as a stimulus causing the hearer to behave in a particular way (e.g. getting ready before 7:30); (15) may invite the hearer to plan a future action (e.g. going to the market the speaker is suggesting); finally, on uttering (16) the speaker is communicating a decision which may cause the hearer to stop or change an activity (such as getting ready in order to go and do the shopping himself).¹⁶

Even if the propositions expressed in (12-16) finally turned out to be false at a later time, they would still remain relevant as they would have given rise to a number of real cognitive effects.¹⁷ What the above examples illustrate is that making claims about unrealized states of affairs, although objectively unverified, is pragmatically justified on many occasions by virtue of the cognitive gains it brings about. With this in mind, it seems that with respect to the meaning of will little is to be gained from the philosophical debate about the factuality of the future.

The obvious question at this point is: on what basis can we say that an unrealized proposition is true if it lacks a truth value? Since the propositions expressed by utterances such as (12-16) cannot be asserted to be objectively true, we can only entertain them as potentially true on the basis of how they fit our knowledge about the circumstances in the actual world. In this respect, there is a sense in which will is clearly different from the rest of the modals (can, may, must and should). An utterance such as (11), repeated here as (17):

That'll be the postman.

is a very definite statement about a present state of affairs and its truth can be tested immediately after the time of utterance by seeing
whether it is in fact the postman or not. (17) can be contrasted with (18):

(18) That may be the postman.

which is simply a claim about the possibility of a certain state of affairs. The truth value of this statement cannot be assessed by observing whether or not it is actually the postman (since both circumstances are compatible with (18)). The same can be said of (19):

(19) That must be the postman.

which is a claim about the necessity that the person knocking on the door is the postman. The truth value of (19) cannot be assessed by observing whether this state of affairs is actually the case.

The difference between (17) and (18-19) is a matter of epistemological justification. On uttering (18), the speaker communicates that the situation described (that be the postman) is compatible with her knowledge of the circumstances, in other words, that there is an epistemic possibility that $p$ is true. When the speaker utters (19), she communicates that the proposition expressed is a necessary conclusion, since it is entailed by her background knowledge, in other words, that it is epistemically necessary that $p$ is true. (17) is clearly different: the speaker is directly communicating that $p$ is potentially true, without specifying any sort of compatibility or entailment relation between the circumstances and the proposition expressed. In (18) and (19) the speaker's beliefs can be said to be justified true beliefs, since they are sufficiently supported by the evidence available. Papafragou (2000: 70) argues:

[Epistemic interpretations of modal verbs involve a propositional representation being used interpretively: the complement of the verb (the embedded proposition) is not used as a truth-conditional representation of a state of affairs in the external world but as a representation of an abstract hypothesis, which is considered to be compatible with/entailed by the speaker's set of beliefs. This is the reason why epistemic interpretations are typically taken to convey
how much evidence the speaker possesses for the embedded proposition.

The proposition expressed in (17), however, is a mere product of belief which although not explicitly supported by the evidence need not be false, in other words, it is a self-justified true belief. As pointed out by Lyons (1977: 815), "the speaker can treat the future as known, as a fact that belongs to \( w_i (= w_0) \), whether he is epistemologically justified in doing so or not." In my view, as already argued, treating an unrealized state of affairs as known is justified by the cognitive gains it brings about. On interpreting (17), the hearer will assume that the speaker is not in a position to entertain the proposition expressed as a true state of affairs in the actual world, and therefore, he will take the proposition expressed as being used interpretively as a potential thought which shares a number of contextual implications with the unmodalized counterpart (That's the postman). Truth and potentiality can easily be reconciled in this way.

In this sense, will is a doxastic modal, as opposed to the rest of the modals (with the exception of shall) which encode a compatibility or entailment relation between the proposition expressed and a set of assumptions and hence can be explained in a very systematic and unified way. When uttering a sentence containing will, however, the speaker communicates that the proposition expressed is potentially true without making any explicit mention of the evidence available to her. This is the reason why this verb has been a thorny issue for previous relevance-theoretic approaches to the English modals which have accounted for the meanings of these verbs in terms of compatibility and entailment relations.

This paper argues that will does not pose any unusual problem for a relevance-theoretic account of the English modals. The aim in the next section is to show how the basic meaning assigned to this verb is pragmatically processed to yield the variety of interpretations of utterances containing it.
5. THE PRAGMATICS OF WILL

This section will try to show that the interpretation process of utterances containing will follows the same lines as that of the rest of the modals. Once a temporal index has been assigned to the proposition expressed, the basic meaning of will is pragmatically enriched and a fully propositional form is arrived at. This propositional form, as shown in section 3, can be: (1) a description of a potential state of affairs (dynamic interpretations); (2) a description of a potential and desirable state of affairs (deontic interpretations); (3) an interpretation of a potential thought (epistemic interpretations) and (4) an interpretation of a potential and desirable thought (interrogatives). Given limitations of purpose, attentions will be concentrated on the first three.

5.1. Descriptions of potential states of affairs

This pragmatic category includes a variety of examples in which the speaker justifies the potentiality of the state of affairs described on the basis of certain factual assumptions concerning general knowledge, repeated experience, publicly available evidence, empirical knowledge (whether scientific or quasi-scientific), and so on. The interpretation process of many of the examples found in previous literature require the hearer to retrieve or construct on-line the encyclopaedic entry of a concept in order to access the relevant set of factual assumptions. These can belong either to the file for an individual or object (which in most cases appears as the sentential subject) or to the event/state/process encoded by the main verb. The first case has been treated in the literature as expressing ‘power’ or ‘habit’\(^{22}\), while the second has been accounted for in terms of ‘prediction’. Let us look at these two cases in turn. Consider the following examples:

(20) John will get angry over nothing.
(21) Ed will lie in bed all day, reading trashy novels.
(22) Oil will float on water.
(23) The French will be on holiday today.
The enriched logical forms of (20-23) are (24-27):

(24) \[ [p \text{ John get angry over nothing}] \text{ is true, and the world type is potential.} \]
(25) \[ [p \text{ Ed lie in bed all day, reading trashy novels at the weekend}] \text{ is true, and the world type is potential.} \]
(26) \[ [p \text{ Oil float on water}] \text{ is true, and the world type is potential.} \]
(27) \[ [p \text{ The French be on holiday on 14\textsuperscript{th} July}] \text{ is true, and the world type is potential.} \]

The propositions expressed in (20-23) communicate a typical or noteworthy property of the sentential subjects (e.g. that John usually gets angry over nothing; that Ed has the habit of lying in bed all day at the weekend; that oil has the property of floating on water; that the French celebrate their national holiday on 14\textsuperscript{th} July). These properties are stored in their encyclopaedic entries as factual assumptions, that is as truth-conditional descriptions of states of affairs. The contribution of will in these utterances is to communicate the speaker’s belief that the states of affairs referred to (e.g. John getting angry, Ed lying in bed all day, oil floating on water, the French being on holiday) will be realized (that is, will become true states of affairs in the actual world) whenever the appropriate circumstances arise in the future (e.g. when something however light happens to John; when Ed is on holiday; when we pour oil on water or when 14\textsuperscript{th} July arrives). This captures the intuition that this kind of utterances expresses notions such as ‘power’ or ‘habit’\textsuperscript{23}.

Sometimes the enabling conditions for the comprehension of this class of examples are not provided by the sentential subject but by some other element in the utterance. That is the case of examples such as (28):

(28) \text{You’ll find a wide variety of items at Ikea.}

where the evidence the speaker has in mind is provided by the prepositional phrase \textit{at Ikea}. This evidence includes certain perceptual beliefs stored in the encyclopaedic entry of the concept \textit{Ikea} (e.g. you will find sofas, candles, artwork, lamps, rugs and toys).
Let us now move on to an example where the set of factual assumptions the speaker has in mind are accessed from the encyclopaedic entry of the concept encoded by the main verb. Consider (29):

(29) It will rain tomorrow.

uttered by a meteorologist during the television weather forecast. The enriched logical form of (29) will be (30):

(30) [p. It rain on 1\textsuperscript{st} January] is true, and the world type is potential.

On uttering (29), the speaker is communicating her belief that it will rain the day after the utterance is made\textsuperscript{24} justified by the present weather conditions. These perceptual beliefs must be understood as following the realization of a set of factual assumptions stored in the encyclopaedic entry for rain in the form ‘whenever x, then it is predictable that y’\textsuperscript{25} (e.g. ‘whenever heavy clouds approach, it is predictable that it rains’). The resulting interpretation is then a ‘prediction’.

Our intuition that (29) will be entertained by the hearer with more strength if uttered by a meteorologist rather than by a layman is accounted for by the more scientific nature of the relevant factual assumptions used by the former (based on highly sophisticated meteorological measurements) whereas the real world knowledge used by the latter is more unreliable and incomplete, including not only perceptual beliefs, but knowledge organized by the sort of structures referred to as scripts, frames and scenarios in cognitive psychology (for example, encyclopaedic information containing situation-specific information about rain).

5.2. Descriptions of potential and desirable states of affairs

It is assumed from the outset that what has traditionally been called deontic modality is not limited to the expression of ‘obligation’
and 'permission'. Rather, it deals with states of affairs which are not only potential but also desirable. This seems to be the best way to distinguish more subtle interpretations, such as 'warnings', 'suggestions', 'offers', 'orders', and so on.

The interpretation process of an utterance expressing deontic modality is illustrated here with an example taken from Nicolle (1998):

(31) A: Would somebody chair this afternoon’s session, please?
    B: I’ll do it.

The original context in Nicolle (1998) was to account for the volitional interpretations with will (expressing volition on the part of the subject, originating subsequent to a request) in contrast to the prior intention interpretation of be going to. The usual interpretation of (31) is that the speaker had not previously intended to chair the session, but is offering to do so now. What is at stake in B’s answer is the fact the A has presented a certain state of affairs as desirable to herself. On uttering I’ll do it B recognizes the desirability (a mutually manifest contextual assumption) and concedes the potentiality of the state of affairs described by communicating that the proposition expressed ([p Speaker will chair this afternoon’s session at t1]) is a true description of a potential state of affairs which is under her control. Hence, a volitional interpretation concerning the speaker’s ‘intention’ is the most natural one.

Recall that, in the case of the modals, the notion of desirability is not linguistically encoded but pragmatically inferred. This does not mean, however, that volitional interpretations are cases of implicature, as has been proposed outside the relevance-theoretic framework (Carretero Lapeyre 2004). Rather, what B is communicating in (31) is the higher-level explicature:

(32) The speaker is offering to chair this afternoon’s session.

The volitional interpretation would have been recovered as an implicature if the speaker had uttered something such as:

(33) I have nothing better to do this afternoon.
The following example can be contrasted with (31):

(34) You will do as you're told.

which is intuitively interpreted as a 'command'. What makes (34) different from (31) is the fact that the state of affairs described in the former is desirable from the point of view of the speaker, and hence is interpreted as a 'command' rather than an 'offering', as the higher-level explication in (35) illustrates:

(35) The speaker commands the hearer to do as he has been told.

It is interesting to note that there is a close link between examples such as (34) and imperative mood. As already discussed in section 3, both imperative utterances and modalized utterances describing a state of affairs regarded as potential and desirable to the speaker linguistically encode that the state of affairs described is potential. They differ in that imperative utterances also encode the notion of desire, whereas in the case of the modals this notion is pragmatically inferred. Klinge's (1993: 355-356) concern for this link is straightforwardly solved in this way.

5.3. Interpretations of potential thoughts

Finally, the derivation of epistemic interpretations will be illustrated with example (11), repeated here as (36):

(36) That'll be the postman.

The logical form of (36) is (37):

(37) \([p, \text{That be the postman}] \text{ is true, and the world type is potential.}\)

This logical form will then be inferentially enriched to yield the complete propositional form in (38):

(38) \([p, \text{The person knocking on the door at } t \text{ is the postman}] \text{ is true, and the world type is potential. (where } t \text{ coincides with the time of utterance)}\)
In the context of this example (where the participants are expecting a very important telegram and there is a knock on the door), the hearer, on interpreting the utterance, does not have direct access to any set of factual assumptions which allows him to entertain the proposition expressed as a true state of affairs and, therefore, will assume that the speaker has reasoned on the basis of her own personal beliefs (which may nonetheless be the result of repeated experience and hence be entertained by the speaker as factual assumptions). The resulting interpretation of (36) is naturally epistemic. The hearer can judge the truth value of the proposition expressed by checking whether the person knocking on the door is actually the postman. It is in this sense that, as Palmer (1986: 62) suggests, “it is often possible to paraphrase the epistemic use of will as ‘You will find that...’”

6. CONCLUDING REMARKS

The last section has been devoted to outlining how the different interpretations of utterances containing will are arrived at through the interaction of the basic meaning proposed for this modal in section 2 and certain contextual assumptions. It has hopefully been demonstrated that the derivation of one interpretation or the other depends on the nature of the evidence the speaker has for the proposition expressed: dynamic interpretations arise when the speaker reasons on the basis of a set of factual assumptions; interpretations will be deontic when the states of affairs described are not only potential but also desirable; finally, epistemic interpretations arise when the speaker has reasoned on the basis of fallible evidence, mainly personal beliefs.

The proposals in this paper point the way to a more comprehensive analysis of the English modals and modality in general, in particular within the relevance-theoretic account of sentence comprehension. As research proceeds, there is little doubt that more specific problems for this analysis will give rise to new research questions. But as the discussion above demonstrates, it is the proposal itself which draws attention to the problems.
NOTES

1 This semantic characterization was tentatively introduced in Berbeira-Gardón (1996b).
2 The research for this paper was carried out in the context of a research program supported by the Plan Andaluz de Investigación, contract number HUM-218. Thanks are due to Marta Carretero, Mürvet Enç, Roberta Facchinetti, and Liliane Haegeman for commenting on earlier versions of this paper. I am specially indebted to Alex Klinge and Steve Nicolle for detailed, insightful criticism and suggestions. Only I bear responsibility for the end-result.
4 See also Klinge (1993).
5 The basic meanings assigned to can, may, must and should are a refinement of those proposed by Groefsema (1995).
6 This notion parallels Wilson and Sperber’s (1988) notion of desirable thought.
7 A similar, though more detailed account, of the root/epistemic contrast in terms of the descriptive/interpretive distinction has been developed in Papafragou (2000). Papafragou convincingly argues that in the case of epistemic modality, the proposition embedded under the modal auxiliary is a metarepresentation.
8 These notions bear some resemblance with Klinge’s (1993) notions of ‘agent-events’ and ‘world-events’.
9 This pragmatic category has not been dealt with for reasons of space limitations.
10 Some scholars argue that will is ambiguous between a tense and a modal (Hornstein 1990, Sarkar 1998); others assume that it is always a modal and never a tense (Enç 1996, Klinge 1993, Nicolle 1997, 1998); for others the evidence is inconclusive (Comrie 1985).
13 As Lyons points out (1977: 815), “many philosophers would deny that we can make statements about the future at all, on the grounds that we cannot have knowledge, but only beliefs, about future world-states”. See also Carretero (2004: 206-207) for the two most influential positions on this topic.
14 Cf. the discussion in Lyons (1977: 813f.).
15 In the cognitive neuroscience literature, prospective cognition is the human capacity to take action in the present on the basis of the anticipation of future state of affairs. It is opposed to retrospective cognition, the ability to take action on the basis of the recollection of specific past episodes. These human capacities are the basis for the so-called ‘mental time-travel hypothesis’, according to which animals are “stuck in time” (Clayton, N. S. and D. Dickinson (1998)) and can only reason on the basis of the immediate past, the present and the immediate future, although this hypothesis has recently been challenged (N. S. Clayton, T. J. Bussey and A. Dickinson, 2003).
It is important to distinguish between the motivating effects of these utterances on the hearer and their possible range of implicatures. I am not claiming that will contributes to implicit content whatsoever.

Cf. Origgi and Palma (1997). They argue that there are cases of relevant assumptions that turn out to lead to false beliefs and nevertheless remain relevant.

According to Conee and Feldman (1985), a “doxastic attitude D toward proposition p is epistemically justified for S at t if and only if having D toward p fits the evidence S has at t.”

Hence our intuition that the speaker is deceived when the future courses of events reveal the falsity of the proposition expressed in an utterance containing will.

Cf. section 3.

With the exception of Klinge (1993), Walton (1988) and those works dealing exclusively with will and/or be going to (cf. Nicolle 1997, Haegeman 1983, 1989), this modal has systematically been neglected in the relevance theory literature on the modals (cf. Berbeira-Gardón 1992, 1996; Groefsema 1995; Papafragou 2000). The question is then how to go on with will without leaving the uncontroversial assumption that the semantic behaviour of modal verbs is homogeneous.


Nicolle (1998: 234-235) treats ‘habitual’ will as semantically distinct from the grammatical marker because it does not exhibit the phonologically reduced form ‘ll. In my view, it is not necessary to consider ‘habitual’ will as a separate lexical item, the reason why it cannot be contracted to ‘ll being a matter of stress: the sentential subject is focally stressed so as to focus the main relevance of the utterance on the encyclopaedic entry of the concept it encodes. Although this point is outside the scope of this paper, I am grateful to Steve Nicolle for bringing it to my attention.

It is interesting to note that in this kind of example a temporal index must be assigned to the proposition expressed, whereas in examples (20-22) the temporal reference is indeterminate.


REFERENCES


On the semantics and pragmatics of Will