

## *A New Angle on an Old Theme: Epistemic Modality Reconsidered*

NUYTS, JAN (1994). *Epistemic Modal Qualifications: On their Linguistic and Conceptual Structure*. Antwerp Papers in Linguistics 81. University of Antwerp. 200 pp.

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The monograph here reviewed is a provisional draft of a book. Its aims are twofold: to contribute to a better understanding of epistemic modality both in itself and also as part of the conceptual structure (i.e. the organization of the individual's knowledge of the world and of the processing systems which manipulate this knowledge). Chapter 1 is introductory; chapters 2, 3 and 4 concern the first aim, and chapter 5 the second. In order to situate this work in its context in the literature, I will make a few remarks about recent works on epistemic modality.

The study of modality, traditionally focused on modal verbs, has broadened its scope in several directions. This broadening has been especially notable for epistemic modality, as the following facts attest:

1) The linguistic concept of epistemic modality has been increasingly dissociated from the logical concept based on the notions of *possibility* and *necessity*, according to which epistemic modality concerned different degrees of probability. In many recent works epistemic modality covers all the means by which the speaker modifies his or her commitment to what s/he is saying, no matter whether they convey definite degrees of probability or not. An instance of this shift is Stubbs (1986:1-2), who identifies modality with the speaker's point of view towards what s/he says in terms of commitment and detachment.

2) As a consequence of this conceptual change, the number of expressions included in epistemic modality has witnessed an important increase. Palmer (1986: 20-21 and 66-76) considers that evidentials are epistemic; Coates (1987, 1990) includes in her analysis of epistemic expressions tag questions and the degree adverbs *slightly*, *a bit* and *quite*, as well as the hedge *sort of* and the discourse marker *I mean*.

More radical still is the increase of epistemic expressions in certain works which insist on the pervasiveness of epistemic modality in all uses of language and where non-lexical devices are profusely included. It must be remembered that for many years tense and verbal mood have been traditionally dealt with in terms of epistemic and deontic modality. However, the number of epistemic non-lexical devices has increased considerably. For instance, Stubbs (1986) states, among other things, that the simple forms of verbs convey more confidence in the truth of the proposition expressed than *-ing* forms. Similarly Maynard (1993) includes under modality not only independent words, but also syntactic indicators such as word order and the active/passive opposition, as well as paralinguistic means such as intonation, voice quality, speech rhythm and speed, and even head movements and body language.<sup>1</sup>

3) The shift in the concept of modality has incremented not only the number of epistemic devices, but also the linguistic domains of analysis. The prominence of semantics in earlier works is giving way to pragmatics and discourse analysis. A clear instance of this tendency is Maynard (1993), who not only incorporates the discourse dimension in her analysis of modal devices, but also believes that the relationship between discourse features such as theme and rheme, cohesion and exchange structure and those features traditionally considered 'modal', such as epistemic modality and emotional attitude, is so strong that they cannot be dissociated in a deep analysis of modal expressions.

In relation to the above-mentioned works, Nuyts' monograph is traditional concerning the concept of epistemic modality, which is defined in terms of the speaker's expression of his or her estimation of the chances that a state of affairs has of having been, being or becoming true. It is also conservative in that the analysis is limited to these expressions that have been most widely analyzed in the previous literature, namely modal auxiliaries, modal adjectives, modal adverbs and mental state predicates, although he mentions the existence of other epistemic devices. Even taking into account his concept of epistemic modality, the number of expressions included is in this reviewer's opinion too small: he explicitly excludes the auxiliaries *must* and *should*, assigning to them the category of evidentiality. I believe these expressions cannot fit into the category of evidentiality as defined by Nuyts himself (p.11), which does not involve probability, but only the nature of the sources leading to knowledge about a state of affairs. *Must* and *should* actually convey an assignation of probability on the part of the speaker, in contrast to, for example, *seem* and *look*. The following examples show how *seem* and *look*, but not *must* and *should*, admit an epistemic qualification contrary to evidence:

- (1) The problem **seems** more difficult than it actually is.
- (2) She **looks** angry, but I know she isn't.

- (3) \*The problem **must/should** (epistemic) be more difficult than it actually is.  
 (4) \*She **must/should** (epistemic) be angry, but I know she isn't.

Also excluded are the cases of the English modal *will* which involve 'little more than a marker of future tense', as stated in Coates (1983:179). I believe that a statement about the future necessarily has an epistemic value other than total certainty, and *will* marks this lack of certainty. Contrariwise, the use of the present tense referring to future events situates them nearer to total certainty.<sup>2</sup> Similarly, other kinds of expressions not even mentioned in this work could be considered as epistemic: this is the case of a number of speech act verbs, such as *predict*, *conclude* and *hypothesize*, and of adverbs such as *apparently*, *clearly*, *obviously* and *seemingly*, although these have a strong evidential component.

In spite of its traditionality as regards the concept and expressions of epistemic modality, the monograph is innovative in the way the analysis is carried out. The different types of syntactic expressions are dealt with in terms of the following factors:

1) *discourse functionality*, that is, the salient or non-salient informational status of the epistemic expression in its context;

2) *evidentiality*, which is related to the distinction between subjective and objective epistemic modality, but the approach is slightly different: subjective epistemic modality is often said to express a metapositional attitude of the speaker, whereas objective modality refers to the probability as a fact, thus belonging to the proposition. In other words, in subjective modality the speaker believes that something may be the case, while in objective modality s/he knows that this possibility exists. Nuyts states that this distinction is untenable because the speaker who utters an epistemic judgement always has some evidence that the proposition may be true. His distinction between subjective and intersubjective evidentiality is based on the accessibility of the evidence: the evidentiality is subjective when the speaker assumes strictly personal responsibility for the judgement, and intersubjective when s/he suggests that the evidence is known or accessible to a larger group of people, probably including the hearer;

3) *performativity*: an epistemic expression is used performatively when it is meta-propositional and refers to the speaker's attitude at the time of the utterance, and descriptively when it refers to the attitude of the speaker in a time other than the present or to that of someone other than the speaker, as in 'I considered/He considers it *probable* that...' Some epistemic expressions can only be performative, while others can have performative and descriptive uses.

These three factors are applied to the analysis of different syntactic types of epistemic expressions. A fourth is introduced for the analysis of mental state predicates and modal auxiliaries: this is *discourse strategy*, that is, the adjustment

of the speaker's utterances to the hearer or to the organization of information. The four factors serve to characterize the four types of epistemic expressions analyzed, thus indicating the motivation that lies behind the preference of one syntactic type over another.

Therefore the analysis of the epistemic expressions proposed in this monograph is in line with other recent works on the subject in that discourse analysis plays an important part. It is also innovative as regards the rigour displayed in the well-known factors of evidentiality and performativity, which gives way to new enlightening observations.

It must also be specified that, although references to the English language are pervasive, the analysis concentrates on Dutch (the author's native language), and particularly on one Dutch word of each syntactic type, selected at random in the case of the adjective and adverb *waarschijnlijk* 'probable/probably', and on the grounds of frequency and representativeness in the case of the verb *denken* 'think' and of the auxiliary *kunnen* 'can/may'. This limitation makes possible a deep analysis of the expressions chosen, at the expense of the reliability of the characterization of the syntactic types, in the sense that one or more of the factors assigned to a type may vary, or may be less frequent, depending on the individual expression.

The Dutch expressions mentioned above were analyzed with the aid of two corpora, the 'Uit den Boogart' corpus and another compiled by Luc Vandenbosch. The corpora contain expository prose, literary prose and spoken language, and total 913,747 words. The author does not use all the materials in the corpora, since his study aims to be an in-depth qualitative analysis of epistemic expressions rather than a quantitative one; the corpus will thus serve above all as a source of relevant cases for discussion. The categorization of the instances so used was double-checked by another native speaker of Dutch in order to ensure reliability of interpretation.

These general remarks on the monograph as a whole will be followed by an outline of each chapter; comments on specific points are contained in or added to the outlines of chapters 2, 3 and 4. For comments on syntactic types or individual expressions I will use English expressions, which, I believe, do not interfere with the validity of the comments: the translation of all the corpus examples into English as well as the lack of specifications on the matter provide evidence of the author's view that the differences between the Dutch expressions and their English equivalents are limited to issues such as the higher frequency of English epistemic *may* in comparison to Dutch epistemic *kunnen*; in other words, he suggests implicitly that his characterization of Dutch syntactic types of expressions in terms of the four factors described above is on the whole equally adequate for the English language.

The contents of **Chapter 1** respond to its title 'Preliminaries'. The reader is introduced to the problem of the relationship between linguistic and conceptual structures and then to epistemic modality; also included are an outline of the analysis and a description of the corpora used. Nuyts explains the motivations behind his (in my view wise) decision to initiate the analysis not with the auxiliaries, as much of the preceding literature has done, but with the epistemic adjectives and adverbs instead: the latter are 'the most 'direct' or 'specific' means to render epistemic modality' (p.14); besides, they seem very similar, and an account of their differences may supply a good means to analyze the other (more complicated) expressions: mental state predicates and modal auxiliaries, whose meaning is, as the copious literature about them attests, very hard to grasp.

**Chapter 2** concerns epistemic adverbs and adjectives. The author finds that previous accounts of the differences between these two syntactic types of expressions are unsatisfactory and simplifying in that they restrict themselves to characterizing adverbs as subjective and adjectives as objective. In order to develop a more convincing account of these differences, he investigates the occurrences in the corpora of the Dutch adjective and adverb *waarschijnlijk* 'probable/probably'. The number of occurrences shows that the adverb is much more frequent than the adjective in all types of texts, even in expository discourse (press and popular scientific works), where objective evaluations seem more adequate than subjective guesses. Therefore some other factor(s) must also account for the differences between adjectives and adverbs. The author considers discourse functionality, evidentiality and performativity, and after a rigorous analysis concludes that adverbs are always non-salient, evidentially neutral and performative, while adjectives are used when one of these factors is different, especially salience (that is, adjectives are often used when the epistemic qualification is put into focus in the discourse context).

Two specific remarks must be made regarding this chapter:

1) The study of adjectives is restricted to those which can render intersubjective evidentiality; however, there is a kind of adjective with marked subjective evidentiality, such as *sure* and *certain* in the construction 'I am ... that', which has not been analyzed or even mentioned. They seem to share the other two factors with the adjectives here studied: salience and liability for both descriptive and performative use.

2) The author seems right in his statement that stress on adverbs serves to further modify the epistemic value stressed rather than to focus on the epistemic qualification, but this modification should be illustrated with examples, so as to give a clearer idea about which these effects of stress are.

**Chapter 3** contains the analysis of mental state predicates. They are said to differ semantically from adjectives and adverbs in that the epistemic

qualification they express is less precise, probably because of the derivation of epistemic meaning from a more basic process meaning, which refers to the performance of the mental process (as in 'I'm thinking about you'). The verb *denken* 'think' is analyzed in terms of the same three factors used for adjectives and adverbs, with the following results:

1) Concerning discourse functionality, the epistemic qualification is always non-salient in the parenthetical construction, and rarely salient in the non-parenthetical construction. As in the case of adverbs, the stress on *denken* serves to further modify the epistemic qualification, but once again there are no examples to show how this modification actually works.

2) Their evidentiality is strongly subjective, that is, the speaker indicates his or her responsibility towards the information. Nuyts states intuitively that other epistemic mental state predicates seem to involve other types of evidentiality: *believe* and *suppose* have an intersubjective component, while *guess* suggests that the speaker has no evidence at all. Further research is needed on this issue, as the author admits, but the characterization of *guess* does not seem adequate, insofar as it is easy to construct examples with *guess* where the speaker has some kind of evidence:

(5) I **guess** you are feeling tired *after your long journey*.

3) They can be performative or descriptive, depending on whether the subject is the speaker or someone else.

For the analysis of mental state predicates the fourth factor, discourse strategy, is introduced. It is said to be present in those cases in which the speaker makes the utterance sound weaker ('mitigation') or stronger in order to adjust it to the hearer, to external circumstances or to personal reasons, rather than to the content. Nuyts claims that mitigation is totally absent in modal adverbs and adjectives, and doubts whether this strategic use is common to all epistemic mental state predicates, since not all of them have a subjective evidential component. However, the analysis of the pragmatics of a wide range of epistemic expressions carried out in Carretero (1995) shows that, although *think* is by far the most frequent epistemic expression used for mitigation, it is by no means the only one: the following examples, taken from Svartvik and Quirk (1980), show that other mental state predicates (6), as well as adverbs (7-8) and auxiliaries (9), can mitigate unfavourable or compromising information about the speaker or someone else:

(6) well I had intended to be looking for or rather eliminating people over thirty-three or four, I **don't know** (Text 2-6, tone unit 508)

(7) I'm afraid I **probably** sounded rather bad-tempered, but I felt a bit bad-tempered because he does just push on with these things (1-2, 1426)

(8) But that's why **perhaps** they don't let us associate with them (1-5, 984)

(9) I haven't heard a word; I mean I [th] you know I say I think they made up their minds before they started; but I **may** be being a bit cynical about it (1-3, 992)

Nuyts associates mitigation with subjective evidentiality. However, those mental state predicates characterized as 'intersubjective' can also be 'mitigators', as in (10-11); the compatibility between mitigation and intersubjective evidentiality is even clearer in (12-13), where the expressions in bold type lay emphasis on the accessibility to the information, thus lowering the speaker's responsibility towards what s/he is saying:

(10) (mitigation for the sake of modesty)

A: why was that?

B: well, I've seen it on the stage, and I **suppose** I've got used to the image

A: yeah

B: on the stage (3-6, 852)

(11) B: getting married is an awfully complicated business

c: yeah I know, so I **believe** I think I one ought to hand it all over to an agency or something (2-11, 413)

(12) yeah, cos their parents are sort of **obviously** they're you know they don't want any coloured people in our drama group (4-7, 259)

(13) (the speaker thinks that the subject's cricket playing is out of place) the funny thing about it was that he **apparently** played cricket; this always **seemed** to be rather odd (1-6, 1149-1150)

**Chapter 4** concerns modal auxiliaries, especially *kunnen* 'can/may'. Emphasis is laid on the vagueness of their epistemic meaning, probably due to the derivation of this meaning from the non-epistemic ones (similar to what happened to mental state predicates). In the case of *kunnen*, there is no sharp boundary between epistemic and dynamic cases, because of the little importance of this distinction: if circumstances make it possible for something to be the case (dynamic), it easily follows that there is a chance of it actually being the case (epistemic). Nuyts describes a number of factors which favour the epistemic reading of the modal: the construction with the existential BE (as in 'It may be that...'), inanimate subjects, stative states of affairs (in contrast to active), past or future states of affairs, combinations with certain other modal auxiliaries and epistemic expressions, and the nature of the main predicate (illustrated with the famous case of 'You must be careful' versus 'You must be careless').

As the author states, the factors used for the analysis of the previously studied expressions do not confer on the modal auxiliaries a special profile. They tend to be non-salient and their evidentiality is neutral; they are usually performative, except when questioned or in the protasis of a conditional utterance, and are characterized as not being used for mitigation, a statement with which I disagree as may be deduced from my comments on Chapter 3. Concerning discourse

strategy, the modal *kunnen*, but not epistemic auxiliaries in general, may have an ‘argumentative’ function, when it contributes to the management of antithetical views, its epistemic meaning being maintained; contrariwise, *kunnen* may only ‘keep at a distance’ information from a conversation partner (as in ‘He *may* be clever, but he’s terribly lazy’) where the information qualified by *may* is, in all probability, true without any doubt, the epistemic meaning being lost. This use could be labelled ‘concessive’, as in Coates (1983:135). The argumentative function is said to be possible for adverbs and adjectives, but not for mental state predicates; however, here is a counterexample from the Svartvik and Quirk corpus:

- (14) a: that is very useful in wartime and involves a particular skill, but what happens to the chap in between wars?  
 B: well indeed, he’s wasted I **suppose**, but then surely during peacetime an awful lot of people’s talents are wasted (2-3, 945)

From the exceptions found in the correspondences between syntactic types of expressions and the two main discourse strategies here studied, mitigation and argumentative function, it may be observed that both strategies can be realized by epistemic expressions of most, if not all, the syntactic types; consequently, categorical statements about them in terms of syntactic types are risky. Nevertheless, the characterizations here proposed seem right if considered as tendencies: in all probability, mitigation is most frequently rendered with mental state predicates, and argumentative function by modal auxiliaries and perhaps adverbs.

This account of the auxiliaries is followed by a description of the diachronic development of the epistemic meaning of *kunnen*, and, what is more interesting, a speculation on the reason why auxiliaries have developed epistemic meanings in many languages: this development is probably due to the systematic process of forming grammatical markers for major categories of qualifications, a tendency which can be accounted for by the non-salience of these markers. On the other hand, the development of the epistemic meaning in mental state predicates seems to respond to an opposite tendency, called the ‘iconicity principle’: the non-parenthetical constructions of these expressions reflect the conceptual status of the epistemic qualification as an operator over the state of affairs.

**Chapter 5** deals with the cognitive structure of epistemic modality, concretely with the ways epistemic modality sheds light on the relationships between linguistic and conceptual structure. The chapter starts with the description of two earlier layered models of clause structure: the Role and Reference Grammar proposed in Foley and Van Valin (1984) and Van Valin (1990) and that in the Functional Grammar developed by Hengeveld (1990); these are considered insufficient because of their almost total limitation to grammar and



lexis. The author chooses a model proposed by himself in earlier works (Nuyts 1989, 1992): Functional Procedural Grammar, which attempts to account for both conceptual and linguistic structure, as well as for the links between the two. He argues that epistemic modality shows the following dissimilarities between the linguistic and the conceptual level:

1) Evidentiality and epistemic modality are separate conceptual categories, but they are linguistically blended in the subjective and the intersubjective epistemic expressions;

2) Epistemic modality and polarity are conceptually part of one qualification, which constitutes a scale from absolute certainty that something is real to absolute certainty that something is unreal. Linguistically they are often expressed by independent morphemes;

3) *Temporal qualifications are conceptually different from epistemic modality*, but both can be expressed by tense;

4) Epistemic expressions can have a different conceptual status depending on their descriptive or performative use;

5) The conceptual processing of the epistemic qualification may be influenced by discourse functionality: integration with the information about the state of affairs is greater when the qualification is salient;

6) Discourse-strategic uses of epistemic expressions are conceptually different from the others: they are not, or not only, caused by reasoning processes about knowledge, but also by knowledge about the interlocutor or about social behaviour in general in the cases of mitigation, and by the internal structuring of information in argument management.

The **conclusion** consists of one paragraph of eleven lines, where the author states his hope for the two aims to be fulfilled as well as the need for further research in the area. I believe that a more detailed conclusion emphasizing the main findings would be desirable, so as to give the reader an opportunity to recapitulate on the contents; nevertheless, the excessive brevity of the conclusion is compensated for by the adequate way the information is structured, which facilitates a synthetic view of the contents of the monograph as well as perception of the relationship of each part to the whole.

Concerning form, the style is admirably clear and precise. I will only observe that asterisks, used in several places for signalling different points on a certain issue, may be confusing at first sight (due to their use in linguistics to indicate incorrectness or reconstruction), and consequently they could advisably be replaced by another sign.

To conclude, I must state that the monograph, in spite of the criticism made throughout the review, is an interesting and deserving contribution to the literature

on epistemic modality; Nuyts achieves an enlightening description of the four main syntactic types of epistemic expressions by distancing himself from many previous simplistic works. Moreover, epistemic modality is proved to be an excellent means to account for different kinds of relations between linguistic and conceptual structure. For all these reasons, it is to be hoped that the prospective book based on this monograph will be an authoritative work on its subject for a long time to come.

#### NOTES

<sup>1</sup> Stubbs (1986) and Maynard (1993) do not use the label *epistemic* to refer to modality as a whole, but their view of modality is described in terms of commitment and detachment, and thus is strongly related to epistemic modality and distant from deontic and dynamic modality (which are entirely absent in their works).

<sup>2</sup> A convincing argumentation of the epistemic value of future WILL is given in Perkins 1983:109-110.

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