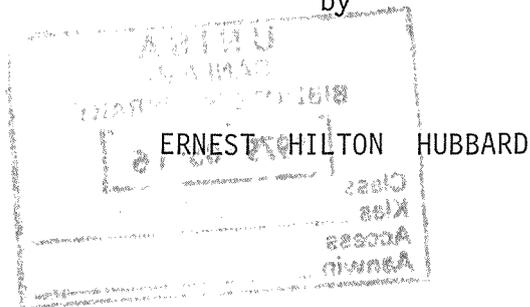


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THE SEMANTICS OF THE  
MODAL AUXILIARIES IN ENGLISH AND  
AFRIKAANS : A CONTRASTIVE ANALYSIS

by



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## SUMMARY

This study represents an attempt to make explicit, within a contrastive perspective, the various types of meaning which can be expressed by the modal auxiliary verbs of English and Afrikaans.

Chapter 1 investigates the potential of contrastive analysis for application in the field of foreign-language teaching and it is found that this linguistic technique is of definite pedagogical relevance because negative learning transfer or interference, which results from differences between source and target languages, is a major cause of learner error. It is also noted here that generally speaking the most acceptable type of linguistic theory within which a contrastive analysis should be framed is one which recognises both surface and deeper levels of structure so that the surface forms in each language can be ultimately related to a common semantic base.

The modal auxiliaries of the two languages were selected for study because of the high degree of formal similarity or congruence that obtains between the English and Afrikaans counterparts, a fact which can be expected to lead to a considerable amount of learning transfer. As the semantics of these forms is not always equivalent, however, some of this transfer is bound to be negative, i.e. error-generating. In Chapter 2 the syntactic and morphological characteristics of the English and Afrikaans forms are compared.

Although, as Chapter 2 reveals, the modal auxiliaries constitute a fairly well-defined formal class in each language, they relate semantically to an extensive set of other expressions, all of which mark modality, a rather complex concept which may be broadly characterised as relating to qualifications on the truth-value of the basic proposition which a speaker expresses. In Chapter 3 various classifications of types of modality are discussed and a basic distinction is made between epistemic modality (qualification relates directly to the speaker's assessment of the factuality of the proposition expressed) and non-epistemic modality (qualifications relate more specifically to conditions on the process referred to). In both cases the "qualification" can be expressed as a kind of "possibility" or a kind of "necessity", and within the framework of our analysis modality is represented at the level of deep-semantic structure by POSS and NEC as higher abstract predicates linked to one another by a set of meaning postulates. The

interpretation of these predicates depends on the kinds of arguments which accompany them in the semantic representation and these arguments are classified and labelled broadly in accordance with Fillmore's functional-semantic definitions of "case". The modal abstract predicates take as arguments a predication which is labelled as a Goal and either an Agent or Instrument as a source. Unlike traditional "modal operators", then, they are two-place transitive-causative predicates and the basic structure of the modal content of sentences is seen to be something of the order of "x makes-possible/necessary y (predication)". Representations of epistemic modality contain a further BELIEVE predicate as part of the Goal predication. Depending on the prelexical transformations that apply (e.g. whether the modality source is deleted or not) syntactically different modality markers are derived from the same basic semantic representation and so expressions such as John allows Fred ..., Fred is allowed ... and Fred can... are shown to be broadly synonymous. Our main concern here is not with the actual transformations but with the "semantic primitives" in terms of which different types of modality may be represented and related to one another.

Using the framework outlined in Chapter 3, the semantics of the "possibility" and the "necessity" modal auxiliaries in each language is discussed in Chapters 4 and 5 respectively. Both non-oblique ("present") and oblique ("imperfect") forms are related to one another and to other modality markers.

Chapter 6 deals briefly with negative forms of the modal auxiliaries before summarising the semantic similarities and contrasts between the congruent English and Afrikaans forms. It is found that in spite of considerable parallelism in the meaning-form relations expressed by the modal auxiliaries in the two languages, there are also a number of basic differences. The pedagogical implications and applications relating to this study, its findings and its approach, are reviewed briefly by way of conclusion.

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CHAPTER 1

CONTRASTIVE ANALYSIS

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## CONTRASTIVE ANALYSIS

1.1 Perspective

A study of the literature on contrastive analysis reveals a number of differences of emphasis concerning the nature and function of this discipline, but most of its protagonists could be said to subscribe to a general definition such as that of Hammer and Rice, who characterise what they call "contrastive structure study" as "a systematic comparison of selected linguistic features of two or more languages, the intent of which is ... to provide teachers and textbook writers with a body of information which can be of service in the preparation of instructional materials, the planning of courses, and the development of classroom techniques" (HAMMER and RICE 1965 : Introduction).

One significant feature of this definition is the fact that it divides naturally into two parts, the first dealing with the technique of contrastive analysis per se and the second with the "intent" or field of application of this technique. These two aspects must be clearly distinguished in any assessment of the relationship between contrastive analysis and "applied linguistics", which latter has been broadly defined as "that scientific discipline oriented at practical application, which contributes to the solution of tasks, problems and conflicts in all human fields in which language is involved" and differs from theoretical or "pure" linguistics in that "it is the practical purposes and intentions, not the scientific knowledge for its own sake, that is aimed at" (SPILLNER 1977: 155).

One may deduce from a study of these definitions that contrastive analysis is indeed a sub-discipline of applied linguistics, but although teaching needs may determine the selection of a particular problem area in the languages concerned, the resulting contrastive analysis should, in order to maximise the potential for successful application, conform as closely as possible to requirements such as exhaustiveness, accuracy, consistency and economy, i.e. it should be undertaken in the spirit of "scientific knowledge for its own sake". When discussing "contrastive analysis", then,

it is vitally important to distinguish - as is not always done in the literature on the subject - between the linguistic analysis on the one hand and its possible applications on the other. Our main concern is with analysis, but matters relating to application must first be briefly dealt with.

## 1.2 Contrastive analysis and foreign-language teaching<sup>1)</sup>

The raison d'être of contrastive analysis derives essentially from two central claims or assumptions, i.e.:

- (a) that one of the main causes of difficulty and therefore of errors in foreign-language learning is interference or negative transfer from the learner's mother tongue (source language), so that where the structures of the foreign language (target language) are similar to those of the latter, learning proceeds almost automatically, while differences lead to difficulties; and
- (b) accordingly, that a sound comparison of the languages concerned will highlight differences and similarities and can therefore be used to predict and to provide explanations for errors that occur in the process of learning the target language.

In what follows we examine these two claims more closely. Together they constitute what may be called the contrastive analysis hypothesis.

### 1.2.1 Language transfer and interference

These terms derive ultimately from behaviourist learning theory. According to this theory, learning transfer is said to take place when past learning (or habits) influences present learning. Positive transfer (often just transfer) or facilitation applies when this influence is an aid

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1) Although various considerations, primarily those of teaching approach, have led to a distinction being made between "second languages" and "foreign languages", in the context of this study the term "foreign language" is used inclusively to cover "second languages" as well.

to the learner, but if it hinders him in his task the terms used are negative transfer or interference.

Despite the connotations of behaviourism that attach to these terms, the strong empirical support for the concepts they denote has led to the adoption of such terms as mother-tongue transfer and source-language interference within the mentalist transformational-generative paradigm, as in the following statements:

"The interference in performance in  $L_2$  which can be associated with competence in  $L_1$  can be counteracted by exercises which are specially designed to reduce the influence of competence of  $L_1$  on performance of  $L_2$ " (POLITZER 1972 : 90)

and

"Versteuring is die ongrammatikale gebruik van 'n taal T1 deurdat aspekte van die grammatika van 'n ander taal T2 of ander tale T2 ... Tn daarop oorgedra word as gevolg van onvolledige internalisasie van die grammatika van T1 en/of ontoereikend ontwikkelde vaardighede in die gebruik van T1"<sup>2)</sup> (VAN WYK 1976 : 145).

The import of the first claim of the contrastive analysis hypothesis is, then, that the learner's internalised mother-tongue system or competence (as well as competence in respect of any other languages he may have learned - cf. footnote 2) can both facilitate and interfere with the acquisition of competence in his target language, depending on whether the relevant structures of the source and target language are similar or different. Where the latter applies, errors in target-language performance will result. These interference-based errors occur at all levels of structure, as exemplified in the following instances where the source

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2) Van Wyk's definition raises an interesting secondary issue, i.e. the question of interference from languages other than the mother tongue in which the learner has already developed a certain competence. This question poses a theoretical challenge to contrastive analysis but in practice, because of the considerable increase in variables that results, it is not usually worthwhile to take possible secondary interference into account. Our study relates only to sources of interference between English and Afrikaans considered alternately as first and second languages.

language is Afrikaans and the target language English:

- Syntax: \*When comes the bus? (cf. Wanneer kom die bus?)  
 Morphology: \*She dance a lot. (cf. Sy dans baie )  
 Phonology: \* [bæt] for [bæd] (cf. the phonological rule for Afrikaans:  

$$\begin{bmatrix} +\text{obs} \\ +\text{voice} \end{bmatrix} \longrightarrow \begin{bmatrix} +\text{obs} \\ -\text{voice} \end{bmatrix} / \_\_\_\_\_\#)$$
  
 Lexis: \*They play very good. (cf. Hulle speel baie goed )

It should be noted that according to the first claim of the contrastive analysis hypothesis, interference is advanced only as one of the main causes and not as the sole cause of error in foreign-language learning. In order to assess the importance of interference in this context, other putative sources of error must be briefly considered.

Relevant to this question are the terms interlanguage (SELINKER 1972), approximate system (NEMSER 1971) and transitional competence (CORDER 1974). These essentially synonymous terms refer to the knowledge or system which underlies the learner's target-language performance at any stage of his development towards full proficiency. The learner's errors are seen not as random phenomena but as performance manifestations of an imperfect underlying system or competence. The systematicity of many types of error, as revealed by error analyses, lends credence to this view although it is often difficult to distinguish between "true" errors and what are often called "mistakes" (e.g. CORDER 1974), i.e. slips that result from memory lapses, fatigue and other performance factors rather than from defective knowledge on the part of the learner.

Apart from language transfer, Selinker identifies four other basic processes as being responsible for the shaping of the learner's interlanguage: "transfer of training", "strategies of second-language learning", "strategies of second-language communication" and "over-generalisation of target-language material" (SELINKER 1972 : 215).

Transfer of training: This is the process that gives rise to what Corder terms "teaching-induced errors" (CORDER 1974 : 131), i.e. errors which can be positively identified as resulting directly from certain teaching techniques or materials. In teaching English, for example, too

much classroom and/or textbook emphasis on the progressive aspect could give rise to errors such as \*every morning at eight I am running down to the bakery.

Strategies of second-language learning: Attempts by the learner to reduce the target language to a simpler system lead to errors which are explicable in terms of learning strategy: inflected forms tend to be replaced by uninflected forms, marked forms by unmarked forms and forms carrying a light semantic load such as articles, some prepositions and "sentence trappings" are disregarded.

Strategies of second-language communication: As causes of error, strategies of second-language communication are closely related to learning strategies, but the emphasis here is on the way in which the speaker, under pressure in an actual communication situation, uses what he has learned to communicate his intentions. An example referred to by Selinker concerns the child who, not knowing the rules for nominalisation in English, gave as a definition for fence: \*to keep the cow ... don't go out of the field. As in the case of learning strategies, simplification of target-language structures usually results.

Overgeneralisation: Examples of overgeneralisation of target-language material given by Selinker are \*what did he intended to say? (overgeneralisation of the past-tense formation rule) and \*drive a bicycle (overgeneralisation of the field of application of the item drive).

Overgeneralisation and language transfer are also recognised as major causes of error by Tran-Thi-Chau. Other causes which he identifies are "the systematic complexity of the TL itself", "inadequate rule learning" and "processes of analogy" (TRAN-THI-CHAU 1975 : 133).

It would appear then that at least eight important sources of error can be identified, but the terminology used requires closer scrutiny.

Unfortunately Tran does not define exactly what he understands by the rather vague formulation "inadequate rule learning": Selinker's "strategies of second-language learning", "transfer of training" and even "overgeneralisation" could no doubt account for the same types of error.

Neither does Tran effect a successful distinction between "over-generalisation" and "analogy". Our argument is that these terms refer to different aspects of the same phenomenon: many of the learner's novel utterances are formed by way of analogy with patterns or rules he has already internalised; of the resulting utterances many will be correct but many may also be faulty because of the application of the rule in areas which do not fall into its domain, i.e. the overgeneralisation of the rule. Returning to the examples of overgeneralisation given above, the first, i.e. \*what did he intended to say? is probably the result of analogy with non-DO forms such as I know what he intended to say, and the second, i.e. \*drive a bicycle is formed by analogy with lexically similar verb phrases such as drive a bus, drive a car. In transformational-generative terms it could be said that the rules generated by the learner's interlanguage are too powerful. Analogy, then, gives rise to overgeneralisation and is not a separate cause of error.

Tran does little more than mention "the systematic complexity of the TL itself" as a cause of error. This factor should not be seen as an additional cause of error but rather as a cause which underlies overgeneralisation and also the simplification that results when strategies of foreign-language learning and foreign-language communication come into play.

Disregarding transfer of training, which is very difficult to identify as a source of error, Occam's Razor can then be applied to yield only two basic causes of error in foreign-language learning:

- (a) source-language interference; and
- (b) the complexity of the target-language system.

Owing to problems that arise when attempts are made to classify errors, a clear assessment of the relative importance of interference as a cause of error is very difficult. Many variables have to be taken into account in deciding for example whether an error such as \*she dance a lot arises as a result of transfer of training, strategies of foreign-language learning or communication, overgeneralisation or interference. Even in terms of our basic classification it may be difficult to decide whether interference, the complexity of the target language, or a combination of the two, is responsible. Nevertheless, sophisticated studies of error,

particularly in situations where the error analyst is acquainted with the learners' linguistic backgrounds and where he can also elicit explanations from the learners as to possible reasons for their errors, indicate that interference is a major cause of error. In a test of the Spanish proficiency of English-speaking Canadian students "a detailed analysis of errors revealed that interference from NL [the native language] or 'interlingual interference' was the greatest single cause of errors, accounting for approximately 51 per cent of the total number of errors analyzed" and "the results of this study confirm the findings reported in earlier studies that first-language interference is the greatest single cause of errors" (TRAN-THI-CHAU 1975 : 133). Similarly, in his research into the transfer of source-language syntactic patterns, Selinker notes that "of eight syntactic combinations tested, seven specific interlanguage arrangements produced by Israeli S's [subjects] were transferred from their native language, Hebrew" (SELINKER 1969 : 88).

It would appear then that interference is indeed one of the main causes of error in foreign-language learning and that the first claim of the contrastive analysis hypothesis can therefore be regarded as valid.

One implication that is said to follow from this hypothesis is that the greater difference between the source language and the target language, the greater will be the problems which confront the learner and the greater the incidence of the resulting errors. Although no scientific method of measuring relative differences between languages has been developed, experience would appear to bear out this hypothesis. Thus for instance the Afrikaans speaker will tend to find German easier to learn than his English counterpart and both will generally experience more difficulty in learning Zulu than German. In a recent study it was found that for English-speaking students French, German, Rumanian, Spanish and Italian were learned in two-thirds of the time needed to achieve the same level of proficiency in Russian, Greek and Finnish and in half the time needed for Chinese, Japanese and Vietnamese (CLEVELAND *et al.* 1960).

Despite the support for this hypothesis afforded by general experience and experiment the correlation between degree of difference and degree of difficulty is by no means a perfect one. Lee, for example, argues that "where the similarities [between languages] are great, confusion is almost inevitable" and he notes the marked difficulty he had, as a fairly

advanced speaker of Spanish, when he tried to learn Italian (LEE 1968 : 188).

Much of the discussion that centres around this type of question is anecdotal, yet it would appear that if the source and target languages are very similar the learner will experience difficulty in separating the two systems. Because of the high degree of positive transfer that obtains in such a situation, the learner will tend to exploit this transfer beyond the limits of its application, thereby producing many interference-based errors.

These findings underscore the relevance of a study such as this one, where many broad similarities between form-meaning relations in the English and Afrikaans modal auxiliaries belie many fine but nevertheless important differences. The need for a theoretically sound contrastive analysis, i.e. one which is exhaustive and so reveals both differences and similarities between the relevant structures, will therefore be obvious. Such an analysis is both a better example of linguistic description and a better source for teaching purposes than is an ad hoc list of differences. As Rivers argues, "... the student must be trained in both that which is similar and that which is contrasting within the sub-system. Many teachers fail at this point and concentrate on teaching only the details which contrast" (RIVERS 1968 : 154).

### 1.2.2 The role of contrastive analysis

The second claim of the contrastive analysis hypothesis relates more specifically to the role of this discipline in foreign-language teaching. It is assumed that a sound analysis of the languages concerned can serve as a basis both for predicting and explaining errors.

Our main concern here is with two questions, i.e. "what constitutes a sound contrastive analysis?" and "can contrastive analyses be used to predict and explain error?"

#### 1.2.2.1 Types of language comparison

There are essentially three different methods which the linguist can employ

when comparing languages:

- (a) the categories used in the description of  $L_1$  may be applied to the description of  $L_2$  without further ado;
- (b) each language may be described in its own terms; or
- (c) both languages may be described with reference to a tertium comparationis - a set of "universal" categories.

The first approach is exemplified typically by the older Latin-based teaching grammars of most European languages. In such a comparison of languages, also known as "transfer comparison", the "picture of one of them [the languages] is deliberately distorted by its being viewed through the matrix set up to account for the other" (HALLIDAY et al 1964 : 120). Such an approach lacks scientific objectivity and must be rejected as a basis for a contrastive analysis.

The second approach is typical of the structuralist school and is no doubt what Fries had in mind when he declared that "the most effective materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner" (FRIES 1945 : 9). Objective as they may be, such parallel descriptions, as exemplified by Lado (1957), do tend to dwell on form rather than meaning. The relation between the surface forms and their meanings or functions is not sufficiently well explored to lead to any valuable insights concerning semantic equivalences between languages and the sort of problems which confront the learner when he attempts to communicate i.e. to express a certain meaning by way of an unfamiliar set of forms. Di Pietro sums up very neatly the position of this approach relative to the first one mentioned: "In discrediting an earlier nonrigorous view of universal grammar by insisting on the definition of a language's forms in terms of its own structure, the structural linguists found themselves in difficulty when it came to formulating the common ground of language similarity which is a vital foundation for CA" (DI PIETRO 1968 : 66).

In the third approach the question of "common ground" or semantic equivalence is of central importance. The representative theory here is transformational-generative grammar and the tertium comparationis is a level of deep structure where potentially universal semantic categories

are given. Contrastive analysis can then be seen as "the process of showing how each language interprets universally shared features as unique surface forms" (DI PIETRO 1968 : 68). Such a process is undoubtedly of some pedagogical relevance too because - as was mentioned above - the learner is confronted with the problem of expressing a certain meaning by means of a set of target-language forms or surface structures.

It is argued then that a semantically-based transformational grammar, in which the level of deep structure serves as a common denominator for language comparison, is the most suitable basis for contrastive analysis. Accordingly, the linguistic framework used in this study owes much to semantically-oriented versions of transformational grammar, i.e. generative semantics and case grammar.

#### 1.2.2.2 Prediction and explanation of errors

The question which must now be briefly discussed is whether contrastive analysis can be used both to predict and to explain errors in foreign-language learning.<sup>3)</sup>

Unfortunately although linguists interested in contrastive analysis can be divided into two camps - those who argue in favour of both roles and those who stress only the explanatory role - there is a lack of clarity on this issue.

Hamp, for example, declares: "I have yet to see, in the works I have had an opportunity to examine, statements predicting with any sort of certainty which mistakes of language learning will be made, on the basis of reasoned contrastive analysis" (HAMP 1968 : 145). It must be realised, however, that the predictions which derive from a contrastive analysis are implicit: the theoretical analysis provides the contrastive data on the languages concerned; these data must then be processed to provide a pedagogical representation of the similarities and differences which can

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(3) The term "error" in this context means interference-based error.

be used as an aid in the preparation of textbooks and/or lessons. It is usually the teacher or textbook-writer who interprets the data available to him, on the basis of which he can make certain reasoned predictions.

Another argument against the predictive role is that teachers don't need contrastive analysis to tell them where the problems lie because they usually know already: "Since anyone who has taught a language can predict from experience the sort of mistakes his students are likely to make a posteriori, is he any the wiser for the a priori and less reliable prediction which the linguist makes on the basis of a differential analysis?" (MACKEY 1966 : 200). Many researchers, however, take a more positive stance on this issue, e.g.: "Obviously teaching experience and C.A. should complement each other, but given that perception is as misleading as we know it to be ... to rely only on unscientifically collected data seems unnecessarily risky ... What of the teacher going to a new language situation for which he wishes to prepare materials in advance? In such circumstances C.A. is one tool among many, but a very useful one which has the ability to predict potential errors, and helps to explain and remedy those which are actually present" (SANDERS 1976 : 68).

Contrastive analysis is indeed one tool among many. Another, which can be seen as complementing contrastive analysis, is error analysis. If what has been called a "sophisticated error analysis", i.e. one which "involves both theoretically adequate linguistic categorization of errors and sophisticated statistical treatment" (CATFORD 1968 : 159), is available, information derived from a contrastive analysis of the structures concerned can be used to explain these errors, i.e. to identify those which probably result from interference and to reveal the exact nature of the interference in each case. On the other hand, where an error analysis is not available, contrastive analysis has a predictive role to play. If an error analysis is undertaken later it can be used to assess the validity of the predictions derived from the contrastive analysis for a particular situation.

A contrastive analysis represents only a potential for application, i.e. a potential for both the prediction and explanation of errors. Which of these functions is more important will in practice vary from one situation to another.

### 1.3 Conclusion

The following points emerge from this introductory discussion of the raisons d'être of contrastive analysis:

- (a) Interference from the learner's source language appears to be a major cause of target-language error;
- (b) by definition, the source of this type of error is differences between source-language and target-language structures;
- (c) contrastive analysis provides information on differences and similarities between the languages concerned;
- (d) the results of contrastive analyses can therefore be used to predict and explain many target-language errors; and
- (e) the most acceptable type of linguistic theory on which to base a contrastive analysis is one in which a distinction is made between deep structure (meaning) and surface structure (form) so that the surface forms in each language can be ultimately related to a common semantic base.

## CHAPTER 2

THE MODAL AUXILIARIES IN ENGLISH  
AND AFRIKAANS : FORM

- 2.1 Formal characteristics of the auxiliary verbs : English
  - 2.1.1 The auxiliaries in general
  - 2.1.2 The modal auxiliaries
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- 2.2 Formal characteristics of the auxiliary verbs : Afrikaans
  - 2.2.1 The auxiliaries in general
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- 2.3 Conclusion : contrastive statement
  - 2.3.1 Syntax
    - 2.3.1.1 Similarities
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    - 2.3.2.1 Similarities
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THE MODAL AUXILIARIES IN ENGLISH  
AND AFRIKAANS : FORM

Although our main concern in this study is the semantics of the modal auxiliaries in English and in Afrikaans, a brief preliminary consideration and comparison of their formal characteristics is pertinent because:

- (a) the term modal auxiliary ("modale hulpwerkwoord") refers to a syntactic/morphological category (or rather to a subcategory of the auxiliary verbs) and not to a semantic one: as will be seen presently (cf. § 3.3.1), not only modal auxiliaries but certain full verbs, adverbs, adjectives and nouns also function within the semantic system of modality;
- (b) the degree of formal (i.e. syntactic, morphological and phonological) <sup>correspondence</sup> or congruence between the English and Afrikaans modal auxiliaries is considerable; and
- (c) accordingly, there is in this second-language learning situation a strong potential for transfer, both positive and negative, as the learner identifies the modal auxiliaries of his TL with those of his SL.

Our purpose in this chapter is to sketch in broad outline the nature and extent of the congruence between the English and Afrikaans forms. We will first consider each language in turn.

## 2.1 Formal characteristics of the auxiliary verbs : English

In English, verbs can be broadly classified into two groups, full verbs and auxiliary verbs. The former group can be further divided into what are usually termed main verbs and catenative verbs or catenatives. Main verbs are the obligatory constituents of the verb phrase at surface structure level in that they are always either present or "understood" in the surface sentence. The catenatives, on the other hand, share with the auxiliaries the property of optionality: they are not essential constituents of a sentence and when they do appear they do so always in construction with a main verb (which may be "understood"). Thus read in 1(a) and 1(c) is a main verb, while want is a main verb in 1(b) but a catenative in 1(c)(i) and in 1(c)(ii) with

read being "understood" (i.e. deleted from surface structure) in 1(c)(ii):

- 1 (a) I read whodunnits.  
 (b) I want a whodunnit.  
 (c) (i) Who wants to read a whodunnit?  
 (ii) I want to.

The auxiliary verbs may also be initially divided into two groups, i.e. the so-called primary auxiliaries and the modal auxiliaries. Since the modals are a subcategory of the auxiliaries, those characteristics which they share with the other auxiliaries are described first.

### 2.1.1 The auxiliaries in general

Palmer (1974 : 18-19) identifies eleven auxiliaries with twenty-eight forms in all, to which we add the form dared:

BE: <u>is, are, am, was, were</u> ; non-finite <u>be, being, been</u>	} PRIMARY AUXI- LIARIES
HAVE: <u>has, have, had</u> ; non-finite <u>have, having</u>	
DO: <u>do, does, did</u>	

WILL: <u>will, would</u>	MUST: <u>must</u>	} MODAL AUXILIARIES
SHALL: <u>shall, should</u>	OUGHT: <u>ought</u>	
CAN: <u>can, could</u>	DARE: <u>dare, dared</u>	
MAY: <u>may, might</u>	NEED: <u>need</u>	

Be can combine either with -ing as in is writing to form the progressive aspect or with -en as in was written to form passives. Have combines with -en as in have written to form the perfective aspect.

The paired modal forms on the left i.e. will - would etc. may be referred to as "present" and "imperfect" forms respectively, but the semantic relationship between these two forms will be shown to differ from that between the "present" and "imperfect" forms of other verbs. The modals dare and need are marginal auxiliaries because, as will be seen, they do not always share the distinctive formal properties of the other auxiliaries.

Ought differs from all the other auxiliaries in that it must be followed

by a to-infinitive.

We will focus our attention in this study primarily on the remaining modal auxiliary forms, described by Major as "the nine classical modals" (1974 : 40).

The auxiliaries can be distinguished from all other English verbs (catenatives and main verbs) in terms of the four characteristics which follow.

Three of these characteristics relate to the behaviour of the auxiliaries under certain syntactic transformations:

(a) Negation

The negative particle not immediately follows (and may contract with)<sup>1)</sup> the auxiliary with which it is in construction:

- 2 (a) He cannot/can't write whodunnits.
- (b) He has not/hasn't written any whodunnits.
- (c) He is not/isn't writing any whodunnits.
- (d) He does not/doesn't write whodunnits.
- (e) \*<sup>2)</sup> He wants not/wantsn't to write whodunnits.
- (f) \*He writes not/writesn't whodunnits.

---

1) In the American English corpus used by Ehrman the following contracted modal forms did not occur: shan't, mayn't, mightn't, daresn't, daren't, oughtn't and needn't (1966 : 10). Daresn't need not concern us here as dares is not an auxiliary (cf. §2.1.2.2) but a form of what may be regarded as the homonymous full verb dare. Of the remaining forms it is probably only mayn't that is not found in educated South African English and thus represents the sole exception amongst the modals with respect to this characteristic. The only exception among the primary auxiliaries is amn't.

(2) The following conventions are adopted to mark forms which are not fully acceptable:

- ? - marginally acceptable
- ?? - very doubtful acceptability
- \* - not acceptable
- ! - not acceptable in the sense under discussion.

(b) Yes/no questions

In this type of transformation the auxiliary inverts with the subject:

- 3 (a) Can he write whodunnits?  
 (b) Has he written any whodunnits?  
 (c) Are many whodunnits written these days?  
 (d) Does he write whodunnits?  
 (e) \*Wants he to write whodunnits?  
 (f) \*Writes he whodunnits?

(c) Code

In certain environments various constituents of the verb phrase are deleted, leaving only an auxiliary. This phenomenon, sometimes called code, appears commonly with and so and nor (with inversion), with too, and in truncated answers and tag questions (with inversion and contracted negative):

(i) and so, nor and too

- 4 (a) Agatha can write good whodunnits and so can Dorothy.  
 (b) Agatha hasn't written any whodunnits, nor has Dorothy.  
 (c) Agatha is writing a whodunnit and so is Dorothy.  
 (d) Agatha writes whodunnits and Dorothy does too.  
 (e) \*Agatha wants to write a whodunnit and so wants Dorothy to/?and so does Dorothy want to.  
 (f) \*Agatha writes whodunnits and so writes Dorothy/\*and so does Dorothy write.

(ii) truncated answers

- 5 (a) Can Agatha write good whodunnits? She can.  
 (b) Has Agatha written any good whodunnits? She has.  
 (c) Is Agatha writing a whodunnit? She is.  
 (d) Does Agatha write whodunnits? She does.  
 (e) ?Does Agatha want to write a whodunnit? She wants to.  
 (f) \*Does Agatha write whodunnits? She writes.

(iii) tag questions

- 6 (a) Agatha can write good whodunnits, can't she?  
 (b) Agatha has written good whodunnits, hasn't she?  
 (c) Agatha is writing a whodunnit, isn't she?  
 (d) Agatha writes whodunnits, doesn't she?  
 (e) \*Agatha wants to write a whodunnit, wantsn't she?  
 (f) \*Agatha writes whodunnits, writesn't she?

In certain "code" circumstances the second auxiliary need not be identical to the first:

- 7 (a) She can write well and she will.  
 (b) She does write well now because she must.

The marginal auxiliaries dare and need are syntactically restricted in that their positive forms normally appear only in yes/no questions<sup>3</sup>), while even the negative forms are often marginal in "code":

and so, nor

- 8 (a) Agatha  $\left\{ \begin{array}{l} *need \\ *dare \end{array} \right\}$  write and so  $\left\{ \begin{array}{l} *need \\ *dare \end{array} \right\}$  Dorothy  
 (b) Agatha  $\left\{ \begin{array}{l} needn't \\ daren't \end{array} \right\}$  write nor  $\left\{ \begin{array}{l} ?need \\ ?dare \end{array} \right\}$  Dorothy

truncated answers

- (c)  $\left\{ \begin{array}{l} Need/needn't \\ ?Dare/daren't \end{array} \right\}$  she write? She  $\left\{ \begin{array}{l} *need \\ *dare \\ needn't \\ daren't \end{array} \right\}$

tag questions

- (d) She  $\left\{ \begin{array}{l} *need \\ *dare \end{array} \right\}$  write,  $\left\{ \begin{array}{l} needn't \\ daren't \end{array} \right\}$  she?  
 (e) She  $\left\{ \begin{array}{l} needn't \\ daren't \end{array} \right\}$  write,  $\left\{ \begin{array}{l} need \\ dare \end{array} \right\}$  she?

(3) It would appear that dare and need only function within the scope of Q or NEG, whether these operators are in the same or a higher sentence:

- (g) Do you think he dare write again?  
 (h) I don't think he need write again.

(d) Contradictory stress

The fourth distinguishing characteristic of the auxiliaries relates to stress patterning within the sentence rather than to syntax proper. The auxiliary takes the main sentence-stress in what Palmer calls "emphatic affirmation of a doubtful statement" (1974 : 25) or what Twaddell calls "insistence on the truth value (affirmative or negative) of the sentence as a whole" (1968 : 17).

Twaddell's formulation is more adequate, as the stressed auxiliary may be positive or negative:

- 9 (a) She cān/cān't write whodunnits. (You are wrong to think she can't/can).  
 (b) She hās/hāsn't written whodunnits. (You are wrong to think she hasn't/has).  
 (c) She īs/īsn't writing a whodunnit. (You are wrong to think she isn't/is).  
 (d) She dōes/dōesn't write whodunnits. (You are wrong to think she doesn't/does).

When the full verb is stressed the sentence cannot be interpreted in the same way as above:

- (e) \*She wānts to write a whodunnit. (You are wrong to think she doesn't want to).  
 (f) \*She writes whodunnits. (You are wrong to think she doesn't).

These sentences do not directly contradict something that has been said but they change it in various ways e.g.:

- (g) She wānts to write a whodunnit. (You are wrong to think that she has already started on one).  
 (h) She writes whodunnits. (You are wrong to think that she also reads them).

Thus when the stress is on the full verb there is no presupposition to the effect that the addressee had previously asserted its opposite.

The feature common to the behaviour of the auxiliaries in all four of the cases discussed above, viz. negation, yes/no questions, code and contradictory stress, is that they do not combine with do, while the full verbs

always have to take do in such circumstances. In these four cases some kind of auxiliary is obligatory and where no modal or form of have or be is present, the "empty" auxiliary do, which is merely a carrier of tense (and sometimes emphasis), is introduced by way of the do-support transformation. The essential difference between the auxiliaries on the one hand and the full verbs on the other is then that the former never take do-support.

We turn now to those characteristics in terms of which the modals are distinguished as a sub-class of the auxiliaries.

### 2.1.2 The modal auxiliaries

Various distinctive syntactic and morphological features of modal auxiliaries are discernible.

#### 2.1.2.1 Distinctive syntactic characteristics

(a) When it occurs, a modal auxiliary is always the first verbal element of the verb phrase, just as the main verb is always the last one.

Between the modal and the main verb the catenatives and the have and be auxiliaries take up various positions, e.g.:

- 10 (a) He may buy the yacht.  
 (b) He may be buying the yacht.  
 (c) He may have bought the yacht.  
 (d) He may have been buying the yacht.  
 (e) He may want to be buying the yacht .  
 (f) He may want to have bought the yacht .  
 (g) He may be wanting to have bought the yacht .  
 (h) \*He has may bought the yacht.  
 (i) \*He is wanting to may buy the yacht.  
 (j) \*He has may been wanting to buy the yacht.

The only exception to this rule is dare, which can follow will, won't, would or wouldn't: need cannot follow any of the other modals, although

the catenative need to can:

- 11 (a) He wouldn't dare buy the yacht.  
 (b) He wouldn't dare to buy the yacht.  
 (c) \*He wouldn't need buy the yacht.  
 (d) He wouldn't need to buy the yacht.

(b) Modal auxiliaries cannot co-occur. Although modals can co-occur with the primary auxiliaries (cf. 10 (a)-(g) above), with the exception of dare (cf. 11(a)), they never combine with one another: *Afr?*

- 12 (a) \*He may will buy a yacht.  
 (b) \*He must can buy a yacht.

*vgl. siehe Am. dial. etc*

(c) The modal auxiliaries never appear in either infinitive or participial constructions:

- 13 (a) Agatha hopes { to write  
to have written  
to be writing  
 \*to can write } another one soon. *Afr?*

- (b) { Writing  
Hoping to write  
Having written  
 \*Canning to write } whodunnits at her age is marvellous.

- (c) She { has written  
has wanted to write  
has been writing  
 \*has could writing } whodunnits for years.

Once again, dare is exceptional as it is found in the past participle with will, won't, would and wouldn't:

- 13 (d) She wouldn't have dared write that.

(d) Modal auxiliaries do not occur as the first element of imperatives: *bevel.*

- 14 (a) Write a whodunnit.  
 (b) Be writing when he comes in.

(c) \*Will write straight away.

This, however, is not a properly distinctive characteristic as it applies to certain other verbs too:

(d) \*Have written a whodunnit by tomorrow.

(e) \*Want to write a whodunnit.

(f) \*Have to write a whodunnit.

(g) \*Feel like writing a whodunnit.

The unacceptability of 14(c) is however of a different order to that of 14(d)-(g), which are at least interpretable in an imperative sense.

#### 2.1.2.2 Distinctive morphological characteristics

(a) Modal auxiliaries are the only verb forms in English which do not take an -s morpheme in the third person singular present:

15 (a) He writes.

(b) He has written.

(c) He is writing.

(d) He does write.

(e) \*He shoulds write.

(b) If we consider the characteristics mentioned in (c) (above) from the morphological point of view, it will be obvious that modal auxiliaries do not take -ing or -en:

16 (a) writing, \*maying

(b) have written, \*have mayed.

(c) The modal auxiliaries do not have present and past forms. The relationship between can/could, will/would, shall/should and may/might will be discussed at greater length later, but it will be noted here that this relationship is not equivalent to that between the present and past forms of other verbs, e.g.:

17 (a) He \*walks/walked to work yesterday.

(b) He \*can/could walk to work yesterday.

but (c) He walks/\*walked to work tomorrow.

(d) He can/could walk to work tomorrow.

Furthermore, the modal auxiliaries must, ought, dare and need have, from a synchronic point of view, no past forms at all.

Of the various morphological criteria for modal auxiliaries mentioned in the literature, the above three define the class most satisfactorily. Others, such as that "modals have unstressed forms with reduced vowels" (MAJOR 1974 : 37), specify neither a sufficient nor a necessary condition for modal auxiliaries, as have and be, for example, also have reduced forms, e.g.:

- 18 (a) He has gone/he's gone  
 (b) He is here/he's here

while some of the modals, i.e. may, might, ought, dare and need, do not.

## 2.2 Formal characteristics of the auxiliary verbs: Afrikaans

### 2.2.1 The auxiliaries in general

Similarly to the case in English, Afrikaans verbs may be divided into main verbs ("hoofwerkwoorde"), catenatives ("skakelwerkwoorde"), modal auxiliaries ("modale hulpwerkwoorde") and other auxiliaries. In Afrikaans, however, the catenatives are generally classed not with the main verbs but together with the auxiliaries as a class of "co-verbs" ("medewerkwoorde") (cf. PONELIS 1968 : 41, 43; BOTHA 1976 : 34-8). Unlike the English catenatives, which share do-support with the main verbs, the Afrikaans catenatives do not share a whole set of syntactic characteristics with the main verbs which distinguish them from the auxiliaries, and they are characterised as those verbs which (a) unlike main verbs are not obligatory constituents of the sentence; (b) can appear between another verbal element and the main verb; and (c) can combine with ge- in the environment of het (cf. BOTHA 1976).

The distinction between the catenatives and the auxiliaries is then not as clear-cut in Afrikaans as in English but there are nevertheless certain distinctive features which the Afrikaans auxiliaries share. These auxiliaries are:

*mede-wv.*

het } TIME AUXILIARIES ("HULPWERKWOORDE VAN TYD")  
was }

word }  
is } PASSIVE AUXILIARIES ("HULPWERKWOORDE VAN DIE PASSIEF")  
was }

wil - wou }  
sal - sou }  
kan - kon } MODAL AUXILIARIES ("MODALE HULPWERKWOORDE")  
mag - (mog) }  
moet - moes }  
durf }  
behoort }  
hoef }

As a time auxiliary was is very limited because it appears only with the main verb wees and then only when it is the first verbal element in the sentence, i.e. when it appears in the "verbindwerkwoordposisie" (PONELIS 1968 : 49; BOTHA 1976 : 33):

- 19 (a) Hy was daar gewees.  
 (b) \*Hy moes daar gewees was.  
 (c) Hy moes daar gewees het.

Behoort and hoef take the modal particle te, while durf can take te but usually combines directly with the next verbal element as do all the other modals:

- 20 (a) Jy moet skryf.  
 (b) Jy behoort te skryf.  
 (c) Jy durf dit nie te skryf nie.  
 (d) Jy durf dit nie skryf nie.

The form mog is extremely rare. The remaining nine forms may be regarded as the "classical" modal auxiliaries in Afrikaans (cf. §2.1.1).

Like all other "co-verbs" <sup>mede-woe</sup> the auxiliaries are non-obligatory constituents of the sentence, but they differ from the catenatives in various ways, e.g.:

- (a) The auxiliaries, with the exception of the rare gewil, never take ge-

- 21 (a) Hy het dit geleer speel.  
 (b) \*Hy het dit gekan speel.



Sy moet (primary) sal kan 4 u.  
 Sy sal (primary) moet kan 4 u.

are possible and sal is never preceded by any other modal. The ordering in the verb phrase is then, as in English, modal - catenative - main verb:

- 23 (a) Hy <sup>m</sup>sal <sup>m</sup>môre <sup>skw</sup>kan <sup>Het</sup>begin speel.  
 (b) \*Hy kan môre sal begin speel.  
 (c) \*Hy sal môre begin kan speel.  
 (d) \*Hy sal môre kan speel begin.

Modals not appearing in first position in the verb phrase, i.e. in the "verbindwerkwoordposisie", still precede all non-modal elements of the verb phrase (cf. kan in 23(a)), but non-modal auxiliaries not in this position always appear after the main verb (PONELIS 1967 : 8):

- (e) Hy het gister begin speel. ✓  
 (f) Hy sou gister begin speel het.

(b) Apart from the notable and frequent exception of moet nie/moenie, the Afrikaans modal auxiliaries do not appear in first position in

<sup>bevel</sup> imperative sentences:

- 24 (a) Word dan gekul.  
 (b) \*Behoort dit nou te doen.  
 (c) \*Kan dit nou doen.  
 (d) \*Het dit gedoen voordat hy inkom.  
 (e) \*Moet dit doen.  
 (f) Moenie dit doen nie.

#### 2.2.2.2 Distinctive morphological characteristics

The modals reveal no fully distinctive morphological characteristics: together with the other auxiliaries and verbs beginning with be-, ge-, her-, er-, ont-, ver- they do not normally take ge-, and those modals that do not take te may be formally paired as so-called "present" v. "imperfect" forms, a characteristic they share with certain verbs such as weet - wis, dink - dog, etc. As in the case of English this sal - sou, wil - wou etc. distinction does not simply reflect a past v. non-past time opposition, as seen in e.g.:

- 25 (a) Ek ry môre saam met hom Pretoria toe/\*Ek het môre saam met hom Pretoria toe gery.

- (b) Ek sal graag môre saam met hom Pretoria toe ry/Ek sou graag môre saam met hom Pretoria toe ry.

### 2.3 Conclusion : contrastive statement

Some of the main points of contrast and similarity between the English and Afrikaans modal auxiliaries will now be obvious and can be summarised.

#### 2.3.1 Syntax

##### 2.3.1.1 Similarities

(a) In both languages the modal auxiliaries are optional elements of the verb phrase and require a following main verb either in the surface structure or as an "understood" element, as in "code". In certain marginal cases in Afrikaans the main verb is not recoverable by virtue of an earlier sentence but is "suppressed" (CONRADIE 1976 : 64):

26 (a) Hy moet stad toe.

*Hy sal moet stad toe*

(b) Hy kan nie vandag hier weg nie.

*Hy kan nie vandag hier wil weg nie*

The suppressed verb is practically always gaan.

(b) In both languages the modal auxiliary precedes all other verbal elements in the verb phrase.

(c) Except in the case of moet nie/moenie, in neither language does a modal auxiliary appear as the first element in imperatives.

(d) Because they are not compatible with do-support, the English modals pattern similarly to the Afrikaans modals in some environments where the patterning of full verbs in the two languages is very different e.g.:

##### (i) Negation

27 (a) Hy kan nie slaap nie.

(b) He can't sleep

but (c) Hy slaap nie

(d) He doesn't sleep.

(ii) Yes/no questions

- 28 (a) Moet hy hardloop?  
 (b) Must he run?  
 but (c) Hardloop hy?  
 (d) Does he run?

(iii) "Code"

As in English, the Afrikaans modal appears in truncated answers:

- 29 (a) Kan sy mooi skryf? Sy kan.  
 (b) Can she write well? She can.

Similarly, different Afrikaans modals also appear together in "code" in conjoined sentences.

- 30 (a) Sy kan mooi skryf en sy sal.  
 (b) She can write well and she will.

The Afrikaans modals durf and hoef, like their English counterparts dare and need, only appear in the negative in truncated answers, e.g.:

- 31 (a) Durf sy gaan? Sy { \*durf  
durf nie }  
 (b) Dare she go? She { \*dare  
daren't }

2.3.1.2 Differences

(a) One of the most basic syntactic differences between the English and Afrikaans modal auxiliaries is that the latter can co-occur, catenatives being used after the first modal in English:

- 32 (a) Hy sal dit kan doen<sup>4)</sup>  
 (b) \*He will can do it.  
 (c) He will be able to do it.

*vgl. Southern Kentucky - Whitley  
 He might could do it*

---

4) As seen in 31(a), Afrikaans modal auxiliaries can appear after the object of the sentence, in the "eindstuk" (PONELIS 1967). This, and other general characteristics of Afrikaans syntax which apply to main verbs as well, will not be considered further here.

(b) Afrikaans modal auxiliaries can appear in infinitive complements but this is not possible with the English modal auxiliaries:

- 33 (a) Hy hoop om dit te kan doen. *Hy hoop om dit te kan doen*  
 (b) \*He hopes to can do it. *Hy besluit om dit te kan doen*  
 (c) He hopes to be able to do it.

## 2.3.2 Morphology

### 2.3.2.1 Similarities

(a) As the English modal auxiliaries do not take -s in the third person singular present form they are morphologically more similar to the Afrikaans modal auxiliaries than is the case with full verbs in the two languages.

(b) Just as the English modals do not take -ed in the formation of an "imperfect", as do most English full verbs, the Afrikaans modals differ from the full verbs in not generally taking ge-. As will be seen, the pairing of the English and Afrikaans "present" and "imperfect" forms of the modal auxiliaries is in some ways very similar. In order to avoid confusion with tense and time labels we will, following Halliday (1970), in future use the terms non-oblique and oblique for these "present" and "imperfect" forms respectively. *non-oblique vorm* *oblique vorm*

### 2.3.2.2 Differences

The only marked difference in the morphological patterning of the English and Afrikaans modal auxiliaries is the lack of an oblique form for English must (cf. Afrikaans moet - moes).

## 2.3.3 Formal similarity and semantic contrast

The resemblances between the English and Afrikaans modal auxiliaries appear all the more striking if to the syntactic and morphological similarities discussed above are added the marked phonetic and orthographical correla-

tions between the forms of the "classical" modal auxiliaries i.e.:

<u>can/could</u>	-	<u>kan/kon</u>
<u>may/might</u>	-	<u>mag/(mog)</u>
<u>shall/should</u>	-	<u>sal/sou</u>
<u>will/would</u>	-	<u>wil/wou</u>
<u>must</u>	-	<u>moet/moes</u>
(also <u>dare</u>	-	<u>durf</u> )

Thus in surface form, in morphological patterning and in syntactic behaviour the modal auxiliaries of the two languages exhibit considerable cross-linguistic similarities. As such they constitute a powerful source of learning transfer in the foreign-language learning situation. The fact that this transfer often proves in practice to be negative (i.e. error-generating) derives largely from the fact that the meanings of comparable forms in the two languages are by no means always equivalent. It is then to the important question of the differences and similarities in the semantics of the English and Afrikaans modal auxiliaries that we must now address ourselves.

## CHAPTER 3

THE SEMANTICS OF MODALITY

- 3.1 The modal auxiliaries and modality
- 3.2 Types of modality
- 3.3 Formalisation of the semantics of modality
  - 3.3.1 The descriptive framework
  - 3.3.2 The modal abstract predicates NEC and POSS
    - 3.3.2.1 Arguments of the modal abstract predicate
  - 3.3.3 The abstract predicate BELIEVE
    - 3.3.3.1 Arguments of the abstract predicate BELIEVE
- 3.4 Conclusion

## THE SEMANTICS OF MODALITY

Our main concern here is to indicate the type of semantic system in which the modal auxiliaries of both English and Afrikaans participate, to discuss very briefly the nature of the semantic relationships that hold between different forms, and to outline the descriptive framework which will form the basis of our analysis.

3.1 The modal auxiliaries and modality

The modal auxiliaries of both English and Afrikaans are used to express modality, a term which has various meanings but may be broadly characterised as relating to qualifications on the truth-value of the proposition which the speaker's utterance expresses. The speaker has at his disposal various modality markers which he can use to qualify in some way his commitment to the factuality or "reality" of the semantic content of any proposition, i.e. to "hedge" his utterance. Thus Joos for example distinguishes between "factual assertion", which characterises utterances that have a truth value (e.g. Charles is at the door), and "relative assertion", as found in "modal" utterances (e.g. Charles may be at the door). In modal utterances "there is no such truth value with respect to occurrence of the event; what is asserted instead is a specific relation between that event and the factual world, a set of terms of admission for allowing it real-world status" (JOOS 1964 : 149). In similar vein Bouma, discussing the modal auxiliaries specifically, declares that "the modal auxiliary category is used to show the speaker's view of the relationship of the event to its potential realization (or reality)" (BOUMA 1975 : 316).

In the section which follows (§3.2), the notion of modality will be investigated more closely and the different kinds of modality which constructions containing modal auxiliaries can express will be considered. Although our main concern in this study is the modal auxiliaries, it must be noted that members of this particular formally-defined class are not the only modality markers available to the speaker. Others include verbs (e.g. allow/toelaat), adverbs (perhaps/miskien, glo), adjectives (possible/moontlik), nouns (probability/waarskynlikheid), conjunctions (as if/asof), and certain uses

of oblique forms of verbs, often combined with marked word order (were I to do that .../het hy net 'n paar ekstra minute gehad ...). As will be seen, some attention must be given in our study to these other modality markers because of their role in paraphrases of constructions containing modal auxiliaries, paraphrase being as vital a tool in the pedagogical presentation of language material as it is in semantic analysis proper. }

### 3.2 Types of modality

The terms "modality" and "speaker's attitude" can be and often are applied very broadly so as to include various aspects of the affective use of language. Thus Overdiep for example speaks of "gevoelsmodaliteite" ("affective modalities") which express the speaker's "belangstelling, spanning, opwinding, verlangen, vriendelikhed, vijandigheid, verbazing, verdriet, ergenis, ironie, sarcasme" (1937 : 66). Although the modal auxiliaries in English and Afrikaans can be used for the expression of this type of modality, it is arguable that we are here dealing with a kind of secondary modality which can be explained partly in terms of pragmatic factors of language use and partly in terms of more basic types of modality, such as those which have long been recognised in modal logic and are explicable in terms of necessity and possibility or obligation and permission. Our main concern then is with certain basic types of modality which the modal auxiliaries of both languages encode in systematic fashion.

Traditionally, three types of modality are recognised in modal logic, i.e. alethic, epistemic and deontic modality.

Alethic modality relates to the "necessary or contingent truth of propositions" (LYONS 1977 : 791), the "Wahrheitsgehalt einer Aussage" (BLUMENTHAL 1976 : 41). It is the most strictly "logical" of the three types of modality in that the extent to which the speaker's attitude may be said to be evident is minimal. Thus in a typical alethically modalised statement such as the conclusion in

- 1 (a) Bachelors are unmarried men  
John is a bachelor  
Therefore John must be an unmarried man

Mr John says men are stars  
Mr John is a man  
Therefore Mr John must be lying because he is a man.

must expresses alethic necessity and the conclusion in 1(a) is equivalent to the non-modalised, factual assertion

1 (b) John is an unmarried man.

Thus in alethic logic

1 (c) NEC p ("it is necessarily the case that p")  $\supset$  p

where NEC represents the operator of alethic necessity.

Of greater relevance to the study of language rather than of logic is epistemic modality. This type of modality is in many ways similar to alethic modality, but here the involvement of the speaker is clearer. Epistemic modality is concerned not with some kind of objective necessity or possibility but with the speaker's (in questions the addressee's) assessment of the truth of the relevant proposition, this assessment being based on subjective beliefs or knowledge. Thus the conclusion in

1 (d) John is always talking about the people he meets at the Singles Club, so he must be an unmarried man

is not equivalent to 1(b), as the proposition it includes is non-factive. The speaker is not claiming absolute truth for his statement but is assessing the likelihood of its being true on the basis of what he knows about the situation. Thus the implication exemplified in 1(c) does not hold if the necessity operator is epistemic rather than alethic.

Alethic modality, in contrast to epistemic modality, plays a very limited role in ordinary language. As noted by Lyons for example, the two types of modality have much in common (cf. LYONS 1977 : 797), and our argument is that from the point of view of linguistic description alethic modality may be regarded as a sub-type of epistemic modality which is distinguishable largely in terms of the source from which the speaker's assessment derives (logical deduction).

The third type of modality, i.e. deontic modality, may be described as essentially normative and relates to notions such as obligation, permission and prohibition rather than to necessity, possibility and

impossibility, as is the case in epistemic modality. There is however a semantic connection between these two sets of terms, as implied for example in Lyons' characterisation of deontic modality as being "concerned with the necessity or possibility of acts performed by morally responsible agents" (LYONS 1977 : 823. My emphasis). Thus must in:

1 (e) Jack must reveal all his sources of income

expresses an obligation on the subject of the sentence to carry out the action identified in the proposition. Alternatively it may be said that something makes it necessary that the subject acts in a particular manner.

It is generally recognised that there is a close relationship between epistemic and deontic modality, and various attempts have been made at describing this relationship. Thus Huang distinguishes two systems, i.e. "B. necessity - possibility - impossibility" and "C. command - permission - prohibition" and indicates that the one is derived from the other: "Categories in C may further be thought of as results of adding to categories in B an element of will with regard to another person ..." (HUANG 1969 : 163). Leech may also be said to regard epistemic modality as basic: "We may go so far as to claim in fact, that 'possibility' and 'necessity' logically include 'permission' and 'obligation' - that 'permission' is a particular kind of 'possibility', and 'obligation' a particular kind of 'necessity'" (LEECH 1969 : 218).

Other authors, such as Halliday, do not explicitly posit one or the other modality as basic. Halliday's claim is rather that two types can be distinguished in terms of their function in language: "Modality [epistemic modality] and modulation [non-epistemic modality] are the same system in different functions" (HALLIDAY 1970 : 347). In Halliday's view, "modality" characterises modal auxiliaries (and other modality markers) in their "interpersonal" function i.e. when they are used to comment on the content of the utterance ("this is where I come in"), while "modulation" is itself part of this content and thus relates to the "ideational" function ("this is what I have to say"). Together with the further subclassification of modulation into "active" and "passive"

types, Halliday's division is as follows:

	<u>SYSTEM</u>	<u>FUNCTION</u>	<u>EXAMPLE</u>
	- "Modality"	<u>interpersonal</u>	1 (f) <u>Louis may already be here</u>
epistemic v. non-epistemic Leach's	"Modulation" - <u>active</u>	<u>ideational</u>	1 (g) <u>Louis can crack tiles with his hands</u>
	"Modulation" - <u>passive</u>	<u>ideational</u>	1 (h) <u>You may go in now</u>

These functional distinctions are of central importance to any discussion of the modal auxiliaries and they will accordingly be reflected in our semantic representations. It must be noted here that these representations should also be such that they can reflect the fact that the distinction between the two modalities is not an absolute one:

"Modulation, especially of the passive type, is a condition imposed by someone; and if that someone is the speaker himself then it becomes a kind of modality - the speaker in his normal, modal [i.e. interpersonal] function interfering as it were in the event, in the ideational content of the clause" (HALLIDAY 1970 : 349).

Halliday's term "active modulation" cannot be equated with "deontic modality" as the latter term is traditionally used, as we have seen, for permission and obligation - meanings not properly applicable to the modality expressed in 1(g) above. As will be seen however, the meaning of the modality in 1(g) is structured in much the same way as it is in 1(h), in contrast to the epistemic meaning in 1(f), which requires a somewhat different analysis. The basic opposition is then epistemic v. non-epistemic, and we will now employ these terms, deontic modality being characterised accordingly as one type of non-epistemic modality. Other types, most of which relate closely to Halliday's "active modulation" will be identified later. In order to retain modality as a general umbrella term we therefore use the term epistemic modality where Halliday uses "modality" and non-epistemic modality where he uses "modulation".

Another term which is of some importance here and which will frequently be used is modality source. In the extract from Halliday's article given above, modulation is characterised as "a condition imposed by someone". Similarly, Lyons (1977 : 843) refers to the "person or institution" which

may be assumed to have created the obligation or permission in deontically modalised sentences as the deontic source. Extending this concept, we will use the term non-epistemic modality source to apply to whatever it is that creates the conditions relevant to the various types of non-epistemic modality, and it will be argued that in all sentences containing non-epistemic modality markers such a source is either expressed or at least assumed. When the modality marker is a modal auxiliary this source is never expressed as the surface subject relating to the modal and it is usually merely assumed or understood from the context. Thus in 1(h) above the speaker is either himself the source of the non-epistemic (here deontic) modality or he is reporting a condition which derives from another source. Under either interpretation it may be said that the deontic source permits the content of the sentence to be realised, i.e. in a certain sense this source makes it possible for the hearer to carry out the action specified (go in). Applying the same argument also to deontic necessity we can posit the following broad equivalences, x representing the deontic source:

- 1 (i) y may do z = x makes-it-possible for y to do z  
 (j) y mag z doen = x maak-dit-moontlik dat y z doen
- 1 (k) y must do z = x makes-it-necessary that y do z  
 (l) y moet z doen = x maak-dit-nodig dat y z doen.

In the case of the non-epistemic modality which Halliday calls "active modulation" (cf. 1(g)) there would appear to be an intrinsic connection between the source and the subject of the sentence, which we can represent informally at this stage as follows:

- 1 (m) y can do z = y makes-it-possible for y to do z  
 (n) y kan z doen = y maak-dit-moontlik dat y z doen
- 1 (o) y wants to do z = y makes-it-necessary for y to do z  
 (p) y wil z doen = y maak-dit-nodig dat y z doen.

Thus 1 (i)-(p) reflect in an informal manner the transitive relationship involving a non-epistemic source and its goal (here the subject of the sentence containing the modal auxiliary) which underlies all sentences which are non-epistemically modalised.

The notion of source is also relevant in epistemic modality. The epistemic source differs from the non-epistemic one in that it relates not to the imposition of conditions on the participants in the content which a sentence expresses but to the judgement or beliefs of - in the paradigmatic case - the speaker. In 1(f) above, for example, something makes it possible for the speaker to believe that Louis is in a certain place at the time of utterance. The position in respect of epistemic modality can be informally stated in terms of the following broad equivalences:

1 (q) z may be (it may be that z) = x makes-it-possible for y to believe z

(r) z mag wees (dit mag wees dat z) = x maak-dit-moontlik vir y om z te glo

1 (s) z must be (it must be that z) = x makes-it-necessary for y to believe z

(t) z moet wees (dit moet wees dat z) = x maak-dit-nodig vir y om z te glo.

Here too, then, we have a transitive relationship between the source of the modality and its goal, the latter being the speaker's belief.

Having indicated the similarities and differences between epistemic and non-epistemic modality we must now consider how they should best be represented within a formal framework.

### 3.3 Formalisation of the semantics of modality

The formalisation of semantic intuitions is notoriously difficult and intuitions regarding the meanings of modality markers in general and the modal auxiliaries in particular are no exception, as various authors have noted, e.g.: "In order to define the class of modals, or to provide the set of environments in which a modal may be correctly or appropriately used, one must refer to many levels of language: the purely syntactic environment ... the logical structure ... and the context of the utterance ..." (LAKOFF 1972 : 229).

Syntactic and morphological characteristics of the modal auxiliaries in English and Afrikaans have already been discussed (cf. Chapter 2). Our

main concern however is with the "logical structure" i.e. the semantics of the modal auxiliaries, and we are here in agreement with the views of linguists such as Leech that "it only becomes possible to discuss psychological overtones (what we might call the 'pragmatics' of usage) once the logical structures have been taken into account" (LEECH 1969 : 202). Despite concentrating on the semantics of the modal auxiliaries we intend to show that the framework of the analysis presented here also provides a number of pointers towards the resolution of essentially "pragmatic" problems.

### 3.3.1 The descriptive framework

Our purpose here can be described as that of determining a set of semantic primes in terms of which the meanings of modalised ("relative assertion") sentences such as those given in 2(b)-(e) and 2(f)-(i) may be distinguished from those of non-modalised ("factual assertion") sentences such as 2(a).

2 (a) Willi yodels.

2 (b) I allow Willi to yodel.

*toestemming*  
*Roof* (c) Fred allows Willi to yodel.

(d) Willi is allowed to yodel. *demonstrative*

(e) Willi may yodel. *mag/moet/toelant.*

2 (f) The fact that he is Swiss makes it possible for me to believe that Willi yodels.

*epistemics* (g) It is possible for me to believe that Willi yodels.

(h) It is possible that Willi yodels.

(i) Willi may yodel. *(MAG)/moontalk.*

At issue here (for both Afrikaans and English) are three dimensions of semantic relationship i.e. those that hold:

(a) between otherwise identical sentences containing different modal auxiliaries (Willi may yodel v. Willi must yodel);

*modalisiteit*  
*ambiguitat* (b) between different "uses" of the same modal auxiliary forms (cf. 2(e) v. 2(i)); and

(c) between modal auxiliaries and other related modality markers

(cf. 2(b)-(e) and 2(f)-(i)).

Our concern then is to develop a representation of the semantics of modality, concentrating on the participation of the English and Afrikaans modal auxiliaries in this semantic system. Unfortunately no single theoretical model appears adequate for this purpose and so our approach is eclectic, owing much to generative semantics and case grammar, but with semantic features and meaning postulates also being utilised. In the following discussion of our somewhat eclectic framework, figs. 1 and 2 will serve as illustrations.

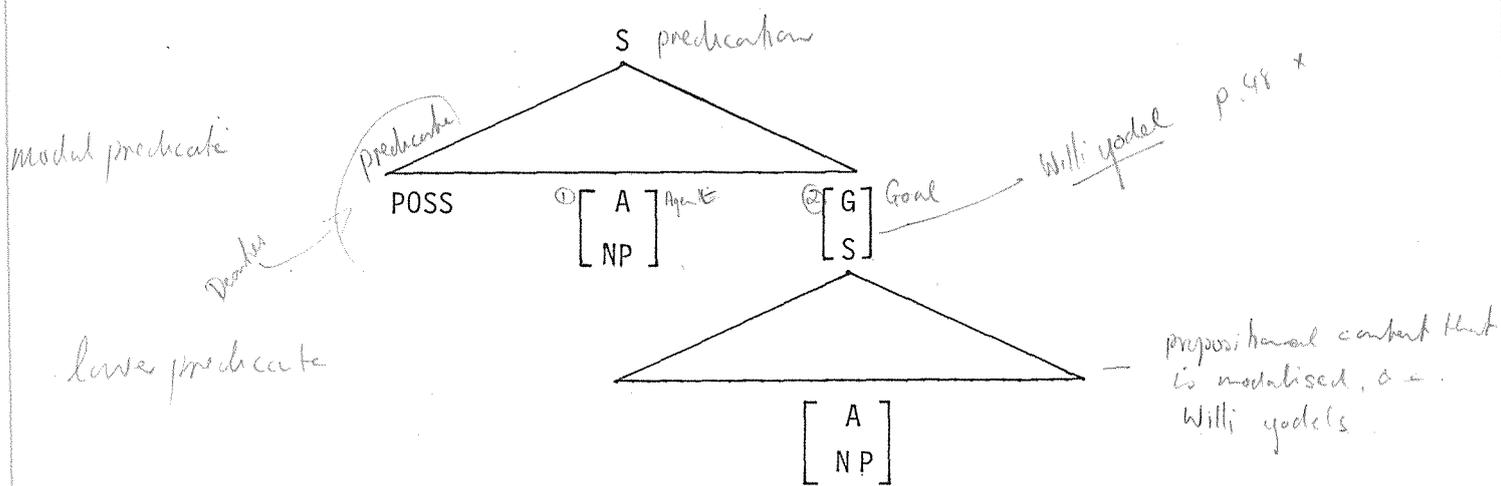


fig. 1

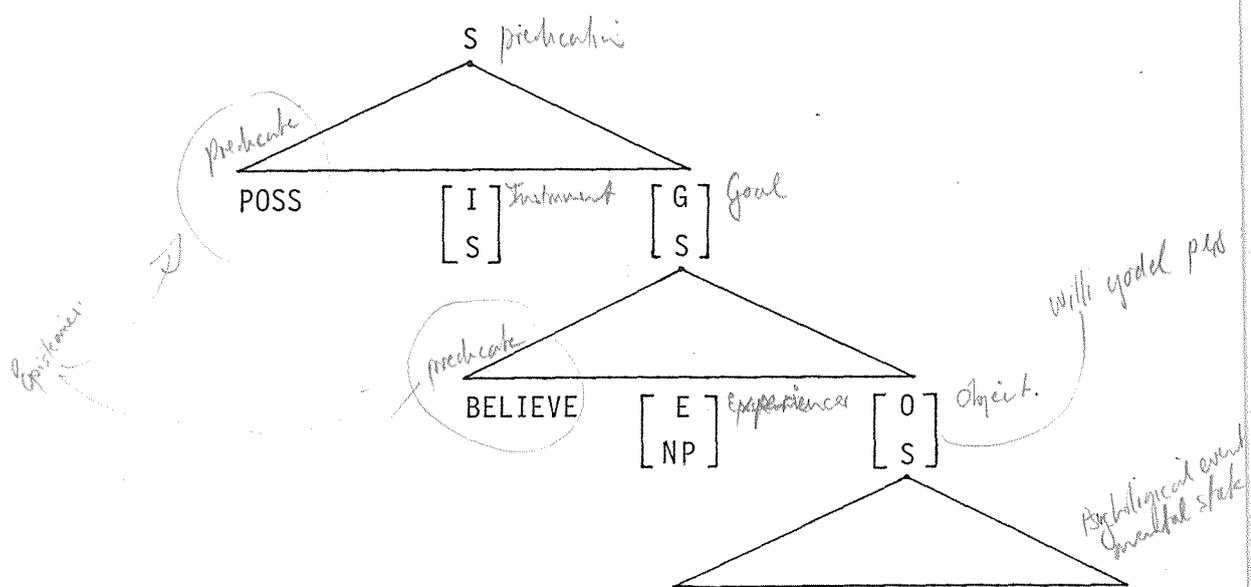


fig. 2

Fig. 1 illustrates the semantic representation of the modality markers in 2 (b)-(e) above, i.e. those expressing deontic possibility with an Agentive modality source. Fig. 2 on the other hand illustrates the semantic representation of the modality markers in 2 (f)-(i) above, i.e. those expressing epistemic possibility. Reflecting generative semantic practice, these representations take the same form as sentence structures, i.e. tree diagrams which here consist of predications (S's) comprising predicates (POSS and BELIEVE) and their associated arguments (given as complex symbols - see below). The lowest S in each case represents the propositional content that is modalised (in our example the structure underlying sentence 2(a)). Modality is therefore represented as a higher predicate (two higher predicates in the case of epistemic modality) in deep structure, a conception which correlates with standard practice in modal logic where modality is represented with the aid of modal operators (cf. §3.2 above).

The predicates given in our two diagrams are not themselves lexical items but rather abstract predicates which are, arguably (cf. FODOR 1977 : 77 and McCAWLEY 1970 : 72), universal semantic elements which bear a close semantic relationship to their corresponding lexical items in much the same way as Katzian semantic features (e.g. [+male]) relate to their corresponding items (male). Thus BELIEVE for example can normally surface as believe, or think, or imagine, etc., i.e. it can be realised as any verb which in the Katzian system would carry some semantic feature or selection restriction identifying it as a typical belief-predicate verb.

One of the major advantages of using tree structures rather than just semantic feature bundles to represent the semantic structure of modality markers derives from the working of prelexical syntax (cf. e.g. McCAWLEY 1974, DE RIJK 1974) in this model. Various transformations can be applied to the abstract predicates and their arguments before the stage of lexical insertion in order to derive the different surface realisations of related modality markers such as those exemplified in 2 (b)-(e) and 2 (f)-(i) above. The final form of the modality marker is determined by the stage that the derivation has reached at the time of lexical insertion. Our approach differs from that of standard generative semantics in that we represent near-synonymous but syntactically different modality markers as having essentially the same semantic representations or lexical entries. Thus despite the fact that 2(e) for example contains no overt reference to

a deontic source (as do 2(b) and (c)) it is argued that the source is always "understood" (as also in 2(d)) when modal auxiliaries are used (cf. §3.2 above), and it is thus represented in the deep structure for may as it is for allow.

Thus in our system the semantic representation or lexical entry for may will be essentially the same as that for allow, one of the main differences being the fact that may will also be specified syntactically as an auxiliary in the lexicon while allow will be specified as a main verb. This syntactic specification can be seen as a kind of triggering device which indicates which prelexical transformations must apply to the basic semantic representation before each syntactic type of modality marker can appear as a surface lexical item. After lexical insertion "postlexical" transformations apply where necessary in the normal manner, e.g. in question formation, passivisation, etc.

The generative semantic paradigm alone is not adequate for our purposes. One problem here is that the only type of grammatical-semantic relation recognised in this paradigm is that of simple predication, i.e. the ascribing of a certain property (including actions, states and so on) to an argument. Attempts to make explicit the semantic roles of arguments by adding extra atomic (i.e. abstract) predicates to semantic representations have not always met with success. Thus Ross for example acknowledges that DO cannot be used as the predicate which uniquely identifies its argument as fulfilling the semantic role of Agent because of sentences which contain do but do not have Agent subjects in the accepted sense, e.g. What the rolling boulders did is crush my petunias to smithereens (cf. ROSS 1972 : 106).

As will be seen, an adequate account of the semantics of modality markers involves reference to the roles which the arguments serve in each predication, and so our semantic representation will link the predicates with their arguments in a case frame (cf. CALBERT 1975). Cases are assigned to arguments broadly in accordance with Fillmore's case grammar theory as expounded in FILLMORE 1968, FILLMORE 1970 and more particularly FILLMORE 1971 in which the question of the roles of sentential arguments is raised. As seen in figs. 1 and 2, each argument is expressed as a complex symbol containing a case feature and a syntactic category label (cf. KASTOVSKY 1973) so that each abstract predicate is specified both

original  
Krasins / name  
p. 126 - Indefinite  
for semantic

as to the cases and to the category membership of the arguments with which it is associated.

Semantic features will also be used in our representations where necessary to bring out certain subtle distinctions between modality markers such as those existing between the English modal auxiliaries could and can, should and must and can and may.

Finally, as will be seen in §3.3.2, the basic semantic relation between our two modal abstract predicates, i.e. NEC and POSS, will be given in terms of a meaning postulate, and so to this extent our framework incorporates also aspects of meaning-postulate analysis.

### 3.3.2 The modal abstract predicates NEC and POSS

As was indicated earlier, in sentences containing modality markers the truth of the semantic content is always subject to some kind of qualification. This qualification may relate either directly to the speaker's assessment of the factuality of the proposition expressed (epistemic modality), or it may relate more specifically to conditions on the process referred to (non-epistemic modality). In both cases the relevant types of qualification can be expressed in terms of "necessity" and "possibility" ("noodwendigheid" and "moontlikheid") and we therefore posit as a constituent in the semantic representation of all modality markers a modal abstract predicate which is characterised as either NEC or POSS.

These two predicates are definable in terms of one another as they exemplify the semantic contrast known as inverse opposition (LEECH 1974 : 116) which is characterised by the following equivalences (PRED = "abstract predicate"):

- (i)  $PRED_1 \equiv \sim PRED_2 \sim$  (NEC  $\equiv \sim$ POSS $\sim$ )
- (ii)  $PRED_1 \sim \equiv \sim PRED_2$  (NEC $\sim \equiv \sim$ POSS)
- (iii)  $\sim PRED_1 \equiv PRED_2 \sim$  ( $\sim$ NEC  $\equiv$  POSS $\sim$ )
- (iv)  $\sim PRED_1 \sim \equiv PRED_2$  ( $\sim$ NEC $\sim \equiv$  POSS)

Pairs of abstract predicates whose members are related to one another in this particular way may be referred to as duals (cf. LAKOFF 1970 : 354).

It would appear then that either of the two predicates could be selected as a point of departure for defining the four types of modality characterised in (i)-(iv) above (this is in effect the approach taken in the analysis of certain English modals presented in ANTINUCCI and PARISI 1971). In the interests of clarity and immediacy in our semantic representations we will however retain both modal predicates in our analysis. Thus a modal auxiliary such as must for example is more immediately understood as being related to NEC than to ~POSS~ and may is more clearly represented in terms of POSS than of ~NEC~. In retaining both predicates we will also be reflecting traditional perspectives. Thus can't, for example, is normally described as expressing negation of the modality as against negation of the "thesis", "process" or proposition, but this is only correct if the relevant modality is taken to be possibility and not necessity (cf. equivalence (ii) above), e.g. if can't is glossed as "it is not possible that ..." rather than "it is necessary/necessarily so that ... not ...".

Thus we retain both NEC and POSS as modal predicates in our analysis, but the equivalences given in (i)-(iv) above will be incorporated into our description (that is to say, into our lexicon) as meaning postulates, the importance of which will become clearer in our discussion of the various modal auxiliaries in relation to negation.

### 3.3.2.1 Arguments of the modal abstract predicate

The modal abstract predicate may be compared with the "modal operator" as used in logic and in certain linguistic accounts of modality (e.g. SEUREN 1969). Thus Seuren recognises three modal operators, i.e. Poss ("it is possible that"), Nec ("it is necessary that") and Perm ("it is permitted that") which modify the "nucleus" or propositional content of sentences. As such they function as one-place predicates taking a sentential argument and no attempt is made to represent the underlying source of the possibility, necessity or permission. As we have seen in the case of 2 (b)-(e) and 2 (f)-(i) above, this source must be included in the representation of all modality markers in order to make the semantic relations between them explicit. Thus the modal abstract predicates, unlike the modal operators, are not one-place but two-place predicates, i.e. they take two arguments and thus represent a transitive relation between the source of the relevant modality and its object

NB  
2

(compare also § 3.2 above).

Case features on the arguments specify further the nature of the relationship between predicate and argument and between arguments through the predicate. Thus figs. 1 and 2 exemplify the rule that the modal abstract predicates always take as arguments firstly an Agent or an Instrument and secondly a sentential Goal.

Bearing in mind Fillmore's caveat: "there are certain difficulties in stating exactly what one ought to mean by 'Agent', but I am willing to leave those unresolved for now" (FILLMORE 1971 : 42), we will use as a working definition for <sup>(f)</sup>Agent in our system "the typically animate perceived instigator of the action identified by the verb" (FILLMORE 1968 : 24). Agents are always specified as NP's and never as S's — (cf. e.g. FILLMORE 1971 : 44) and so we will not include the redundant specification NP under the case feature A in future representations.

<sup>(b)</sup>The Instrument role can be carried by NP or S. In the context of epistemically modalised sentences it is normally expressed as a nominalised sentence (cf. 2(f) above - the fact that he is Swiss ...) describing a state or an event and thus we modify Fillmore's definition slightly to say that here the Instrument "identifies an event [or state] which is understood as having some other event or state as its consequence" (FILLMORE 1971 : 42). In its context as an argument of the modal abstract predicate, whether the Instrument role is regarded syntactically as S or NP is of little import and so here too we will not include a syntactic specification in future representations.

As mentioned above, the second argument associated with the modal abstract predicate, the <sup>(c)</sup>Goal, is always sentential. The Goal of the modality in the deontic representation given in fig. 1 is the propositional content underlying non-modalised sentences such as 2(a), here Willi yodel. Following Fillmore we define the Goal sentence as "one which identifies the resulting state or event in a causative construction" (FILLMORE 1971 : 42). Reference to causation here is appropriate enough because - as seen in 1(i) above - the source of the modality can be construed as making the goal possible or causing it to be possible. When the modal abstract predicate is associated with the semantic roles A/I and G it represents a two-place predicate which expresses causativity and

which bears the same relation to the corresponding one-place predicate (e.g. POSS and NEC after deletion of A/I, being then equivalent to standard modal operators) as do transitive-causative verbs (e.g. lay, enrich) to their intransitive counterparts (e.g. lie, rich - cf. LYONS 1968 : 359 ff).

It should be noted here that the semantic representation given in fig. 1 contains an Agent specification in the Goal sentence. This will be a standard specification for deontic modality, reflecting the fact that usually permission may be granted to and obligations imposed on Agents only (cf. Lyons' reference to "morally responsible agents" in deontic modality as quoted above). Consider 3(a) and (b) for example:

- 3 (a) I permit the eggplant to go to John's house.  
 (b) The eggplant may go to John's house.

These sentences are only acceptable if the receiver of permission is understood to be an Agent who can move the plant. This Agent, being as it is an argument of the Goal sentence, is often referred to as the "goal" of the permission or obligation. We shall distinguish between this more general use of the term (i.e. as contrasted with "source") and the case-label Goal using an initial capital for the latter only.

### 3.3.3 The abstract predicate BELIEVE

It was mentioned above (cf. §3.2) that the Goal of the modality in epistemic modality markers (cf. the abstract modal predicate in fig. 2) is typically some relevant aspect of the speaker's belief. In our semantic representation the participation of the speaker in the speech event as referred to by Halliday and others has a formal correlate in the "subjective" Goal sentence (of the abstract modal predicate) which contains the abstract predicate BELIEVE. This predicate may be realised lexically in surface structure, as in 2(f) and (g), but it may, with its first argument, also undergo "prelexical" deletion as in 2(h) and (i), in much the same way as higher performative sentences (which are also "subjective", i.e. include reference to the speaker) are deleted in Performative Analysis (cf. e.g. ROSS 1970). When the modality marker is an auxiliary verb this deletion rule is obligatory.

### 3.3.3.1 Arguments of the abstract predicate BELIEVE

Although also a two-place abstract predicate, BELIEVE is not a transitive-causative like the modal predicate NEC/POSS. The associated arguments here are characterised as Experiencer (E) and Object (O).

The Experiencer (cf. FILLMORE 1971 : 42) is the role which associates with predicates expressing psychological events (e.g. the noise frightened me) or mental states (I imagine, believe ...). It is typically a human being and - in the context of epistemic modality - also the speaker or addressee (i.e. "hearer") (cf. 2(f) and (g)).<sup>1)</sup>

The second role with which the abstract predicate BELIEVE is associated relates to the character of the mental experience and this is represented as the Object, cf. "sentences embedded to Objects can serve to identify for example, the content of a psychological event" [or, for that matter, mental state]" (cf. FILLMORE 1971 : 42).

It should be noted that in our analysis as exemplified in figs. 1 and 2, the lowest S, i.e. here the non-modalised content Willi yodel, is characterised as G (Goal) in deontic modality but O (Object) in epistemic modality. The status of this content is then shown not to be equivalent in both contexts. The implications of this difference, e.g. with respect to the working of tense, will be dealt with in the chapters which follow.

### 3.4 Conclusion

Figs. 1 and 2 exemplify the types of structure that are posited as underlying the semantics of modality. All modality markers are represented as higher "modal" predicates, i.e. NEC/POSS, with epistemic modality markers taking in addition the predicate BELIEVE. These predicates are abstract ("prelexical") predicates which are realised in

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1) In questions it is the addressee's (i.e. "hearer's") belief that is at issue, cf.

- (i) Must he be there already? = Do you believe that it is  
Can  
near certain that he is there already?  
possible

Thus E will normally be specified as +sp./h. ("speaker/hearer").

surface structure in various ways.

Part of the meaning of the surface lexical items relates also to the nature of (more particularly the semantic roles of) the arguments with which the relevant abstract predicates are associated and so these arguments are given case features in the semantic representation. Case features can function as a type of selectional restriction as is seen in fig. 1, where the lowest S (representing the proposition that is modalised) is characterised as obligatorily containing an Agent.

In the chapters which follow it will be shown that the descriptive framework underlying semantic representations such as those given in figs. 1 and 2 can be used as a basis for making explicit - in an adequately lucid and heuristically valuable manner - many important semantic differences and similarities between the modal auxiliaries of English and Afrikaans.

SEMANTICS OF THE MODAL AUXILIARIES EXPRESSING "POSSIBILITY"

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SEMANTICS OF THE MODAL AUXILIARIES  
EXPRESSING "POSSIBILITY"

#### 4.1 Introduction

The focus of our interest here is the semantics of those modal auxiliaries in English and Afrikaans which share as a common feature of their semantic representations the modal abstract predicate POSS. These modal auxiliaries are English can, may, could and might and Afrikaans kan, mag and kon.<sup>1)</sup>

In this chapter we discuss the various senses of each one of these forms and propose semantic representations in each case.

As we are here concerned primarily with a formally-definable class of elements which manifest a number of strong cross-linguistic formal resemblances (cf. Chapter 2 above) the direction of our inquiry in this and the following chapter will be initially from form to meaning. Each modal auxiliary is taken in turn and its possible meanings discussed and given in terms of a semantic representation along the lines of those exemplified in Chapter 3. In each case we then move from meaning to form in order to consider briefly the other modality markers which share the same or essentially the same semantic representation as the modal auxiliaries.

It should be noted once again that our primary concern is to present a

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1) The Afrikaans form mog is really no more than a relic (cf. e.g. DE VILLIERS 1968 : 85) and the fact that it has virtually no place in non-oratorical spoken Afrikaans is supported by the complete absence of this form in the approximately 425,000 words which comprise the corpora of the Rand Afrikaans University's research project Frekwensiebepaling van die woorde en sekere basiese strukture van die Afrikaanse spreektaal.

set of semantic representations which make explicit the differences and the similarities in meaning between the modal auxiliaries themselves and between them and other modality markers, both intra- and cross-linguistically, and so matters relating to what may be regarded as pragmatics will not be detailed here: these include the question of the illocutionary potential of sentences containing modal auxiliaries and also stylistic factors influencing the choice of one form over another.

#### 4.1.1 A note on "deep tense"

INFL  
It was pointed out in Chapter 2 that the distinction between the oblique and the non-oblique forms of the modal auxiliaries does not simply reflect a past v. non-past time opposition. Any semantic analysis of these forms must however give due recognition to the role played by time relationships and so time specifications are included in our semantic representations in respect of not only the modal predicates but also - normally - the lower predicates. The time specification on the lower predicate is usually constrained to some extent by the time specification on the higher modal predicate such that only certain combinations are compatible. Different modal auxiliaries and different senses of the same modal auxiliary reveal differences in the selection of time specifications for the lower predicates and these selectional restrictions play a role in semantic representation in the same way that, for example, the selection of an Agent in the lower predicate was seen to be relevant to the meaning - and hence to the semantic representation - of deontic may in §3.3.2.1 above.

Following Huddleston (1969 : 786), time specification will be given in terms of what may be called deep-tense features which are normally defined deictically, time of utterance being the axis of temporal orientation. Thus, for example, the features [past], [fut] ("future") and [pres] ("present") are interpreted respectively as "before", "after" and "contemporaneous with" the time of utterance. Huddleston identifies four main devices which mark deep tense in English and the position in Afrikaans is essentially identical. These devices are:

- (a) verb inflections and auxiliaries (this is formal or "surface" tense) e.g. he plays/played/has played squash - he speel muurbaal/hy het muurbaal gespeel;
- (b) temporal specifiers e.g. he is playing squash at the moment/tomorrow -

op die oomblik/môre speel hy muurbal;

(c) conjunctions e.g. he started playing before/after his wife arrived - hy het voordat/nadat sy vrou aangekom het, begin speel;

(d) the nature of the next higher verb e.g.

he [<sup>\*tried</sup>/hoped] to paint the wall tomorrow - hy het [<sup>\*geprobeer</sup>/gehoop] om die muur môre te verf.

Surface tense is then only one of the devices that are used to signal "time relative to time of utterance", i.e. deep tense, in surface structure. In our semantic representations of the modal auxiliaries we must represent not only the deep tense on the modal predicate but also the deep tense or tenses on the lower predicate or predicates which are compatible with each meaning of each modal auxiliary.

Temporal specifiers are particularly useful as devices for determining this type of selection. Thus if the "permission" sense of the modal is intended, 1(a)-(d) below reveal that the specifiers these days/deesdae (present) and tomorrow/môre (future) are compatible with can/kan while yesterday/gister (past) is not:

- 1 (a) he can visit his mother/hy kan sy ma besoek.
- (b) he can visit his mother these days/hy kan sy ma deesdae besoek.
- (c) he can visit his mother tomorrow/hy kan sy ma môre besoek.
- (d) !he can have visited his mother yesterday!/hy kan sy ma gister besoek het.

This sense of can/kan then can select a present or a future temporal specifier. In sentences such as those in 1(a), which contain no specifier, the action to which the main verb refers can be interpreted as being either present or future unless disambiguated by content. In the semantic representation of the relevant meaning of can/kan the deep-tense feature on the lower predicate will be given accordingly as [-past], a binarily specified feature which can be further specified as either [pres] or [fut] ([± pres] or [± fut] could cover both possibilities here but in the interests of clarity we retain both [pres] and [fut] as non-binary features). The fact that either of the latter features is also [-past] can be covered by redundancy rules in the lexicon. As only past time, and not futurity, is systematically marked by "surface

tense" in both English and Afrikaans the primary deep-tense distinction will be in terms of [+past] and [-past].

#### 4.1.2 A note on "deep aspect"

One type of aspectual distinction is of particular importance to our analysis as it relates to the epistemic v. non-epistemic opposition. Consider for example the following:

- 1 (e) John may jog.  
 (f) John may be jogging.

In 1(e) the action referred to is seen as possibly taking place contemporaneously with the time of utterance but not simultaneously with it: the jogging is presented as a cyclical or habitual activity which extends through the speaker's "present" but does not happen to be actually in progress exactly at the time of speaking, as shown by the incompatibility of 1(e) with a simultaneous specifier such as at this very moment. Compatible adverbials here would be every Sunday, these days etc., which may be called contemporaneous specifiers (cf. CRYSTAL 1966 : 12 for these terms). In 1(f) on the other hand the action can be interpreted either simultaneously or contemporaneously as this sentence is compatible with both types of specifier. Thus, in terms of the simultaneous v. contemporaneous distinction, 1(e) contains the marked and 1(f) the unmarked form.

If we consider the modality of the two sentences we see that either can express epistemic modality but that non-epistemic modality can only be expressed by the "marked" form 1(e). A non-epistemic interpretation of the modal is then incompatible with what might here be called "simultaneous deep aspect", which can surface in English as the progressive be...ing form (with states rather than actions simultaneity can also be signalled by the simple present form as in

John may 

be living
live

there at this very moment.

Here again the simultaneous specifier marks the modality as epistemic only).

In Afrikaans too non-epistemic modals are incompatible with simultaneous deep aspect although the aspect is here marked lexically rather than

grammatically, as in 1(h):

1 (g) Jan kan hardloop.

(h) Jan kan besig wees om te hardloop. = *net waarskynlikeheid = poss.*

Compatibility with simultaneous deep aspect is then an important property of epistemic modality and in our semantic representations all non-epistemic modal predicates will be marked as selecting non-simultaneous ([-simult]) processes. The processes that relate to the epistemic modal predicates on the other hand will be unmarked with respect to this aspect.

## 4.2 Non-oblique forms

The non-oblique (cf. §2.3.2.1 above) forms of the "possibility" modal auxiliaries are the cross-linguistically highly congruent forms can and may for English and kan and mag for Afrikaans. We deal with each language in turn.

### 4.2.1 Non-oblique forms: English

#### 4.2.1.1 CAN

This modal auxiliary has both epistemic and non-epistemic senses but, as we shall see, its use as a marker of epistemic modality is severely restricted. We proceed with our general classification of the senses of can as follows:

##### 4.2.1.1 (a) Deontic possibility

This is the permission sense of can as in

2 (a) Fred can visit Jemima,

alternative markers being permit/be permitted to and allow/be allowed to.

In this type of modality an Agent is an obligatory argument of both the modal predicate and the lower predicate even though it may happen that neither Agent appears in surface structure (cf. the discussion of

the eggplant may go to John's house in §3.3.2.1)<sup>2)</sup>

When the modality marker is allow or permit both Agents appear in surface structure:

2 (b) <sup>A</sup> His lordship allows Fred to visit Jemima.

The semantic representation for this sense of can is given in fig. 3(a).

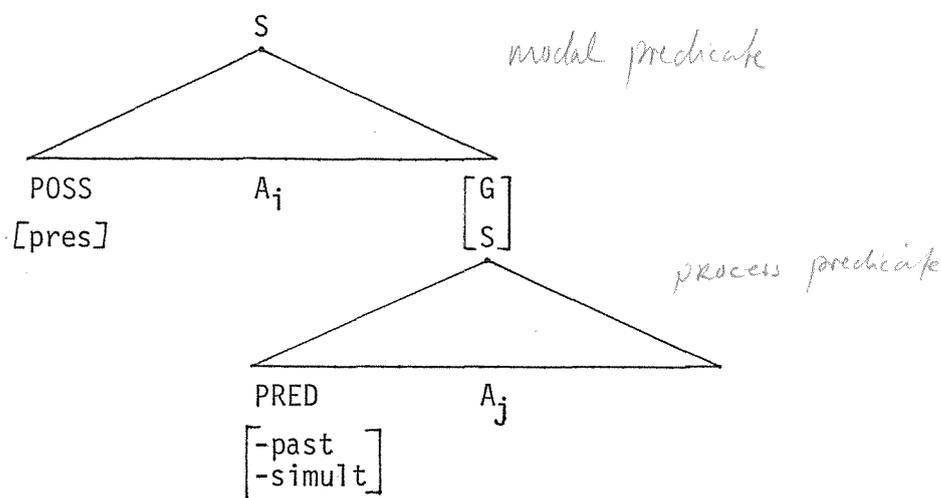


fig. 3(a)

2) We subsume here under the case label "Agent", noun phrases such as the law, the rules of the game etc., as the deontic source is here still ultimately Agentive: any comprehensive analysis of the meaning of such noun phrases must make explicit the fact that what they refer to owes its existence to what may be called "deontic intent" on the part of some Agent or Agents, i.e. the intent to regulate, to prescribe norms, in a sense to "make necessary" and "make possible" (cf. §3.2 and LYONS 1977 : 844 for discussion of these two-place, causative-transitive predicates) acts performed, as noted above (cf. §3.2), by "morally responsible agents". It is by virtue of this "deep" Agentive property that this type of noun phrase collocates regularly with typical deontic modality markers such as permit and allow when it appears as the modality source in surface structure, cf. (i) v. (ii):

(i) The foreign exchange regulations  $\left\{ \begin{array}{l} \text{permit} \\ \text{allow} \end{array} \right\}$  one to take out R2,000  
in foreign currency every year.

(ii) ?? The window  $\left\{ \begin{array}{l} \text{permits} \\ \text{allows} \end{array} \right\}$  one to see into the garden.

While the modality itself is present, the process referred to by the lower predicate can be present or future, as shown in 2(c)-(e):

- 2 (c) Fred  $\left\{ \begin{array}{l} \text{can} \\ \text{is allowed to} \end{array} \right\}$  visit Jemima at present/tomorrow.  
 (d) Fred will be allowed to visit Jemima tomorrow.  
 (e) Tomorrow Fred  $\left\{ \begin{array}{l} * \text{can} \\ \text{will be allowed to} \end{array} \right\}$  visit Jemima every other Tuesday.

Thus in the case of can the permission is known to hold at the time of speaking whether the process itself is immediately permissible or not (when can is used performatively, i.e. in utterances which are used to give permission, the permission is of course brought into being by the utterance). Neither the modality (cf. 2(f)) nor the process (cf. 2(g)) can be past in this sense of can:

- 2 (f) \*Yesterday Fred can visit Jemima.  
 (g) !Fred can have visited Jemima yesterday.

This can is not normally compatible with simultaneous aspect as attested by the unacceptability in this sense of 2(h):

- 2 (h) !Fred can be visiting Jemima.

#### 4.2.1.1 (b) Agentive possibility

This is another type of non-epistemic modality which also involves an Agent in the process (i.e. in the lower predicate of the semantic representation) but it differs from deontic modality in that the source of the modality here (specified in the higher predicate of the semantic representation) is not another Agent but rather a set of circumstances indicated in the semantic representation by the case of the Instrument, which identifies an event or state understood as having some other event or state as its consequence (cf. § 3.3.2.1 above). *ability / inclination*

According to Halliday, Agentive modality, or what he calls "active modulations, those of ability and inclination" (HALLIDAY 1970 : 339), always relates to some intrinsic property of the "actor" in the surface sentence. Halliday does not attempt to explicate the notion of "intrinsicness" in any way, although implicit in his discussion is the

INTRINSIC

argument that the intrinsic "ability" modality ("modulation") is the only modality of which be able to is a marker. This is not however the case, as it is doubtful whether 3(b) can be said to express some intrinsic property of the actor in the way that 3(a) does:

3 (a) Zukov  $\left\{ \begin{array}{l} \text{is able to} \\ \text{can} \end{array} \right\}$  read a thousand words a minute.

(b) The doctor  $\left\{ \begin{array}{l} \text{is able to} \\ \text{can} \end{array} \right\}$  see you.

The distinction here is along the same lines as that made by Calbert in his discussion of "causal" as opposed to deontic possibility, the former <sup>3(a)</sup> subsuming "'possibility' as a result of an 'exterior' cause and 'ability' as a result of an 'interior' cause" (CALBERT 1975 : 43). Calbert also makes no attempt to justify this distinction, but we shall argue that the intuitively-felt difference in the modality of 3(a) and (b) does have certain formal correlates. We distinguish accordingly intrinsic from extrinsic Agentive possibility, semantic representations of the former taking the specification [+int] on the modality source, i.e. I; and those of the latter being specified as [-int].

Intrinsic  
Extrinsic

Intrinsic

(i) Intrinsic Agentive possibility

The "ability" expressed in 3(a) is a relatively stable, enduring quality of the Agent, and as a consequence the deep tense of the process (the lower predicate in semantic representation) cannot normally be specifically future (cf. 4(a)). Nor is a past reading possible with this sense of can (cf. 4(b)):

4 (a) \*Zukov  $\left\{ \begin{array}{l} \text{is able to} \\ \text{can} \end{array} \right\}$  read a thousand words a minute tomorrow.

(b) \*Zukov can have read a thousand words a minute last year.

The deep-tense feature on the lower predicate is then given as [pres]. In the semantic representation of this can, as shown in fig. 3(b), the modal predicate is also [pres]: this form of the auxiliary cannot be substituted for the non-auxiliary modality markers in 4(c) and (d), where the temporal status of the modality is signalled

explicitly as past and future respectively:

4 (c) Zukov { \*can  
was able to } read a thousand words a minute last year.

(d) Zukov { \*can  
will be able to read } a thousand words a minute next year.

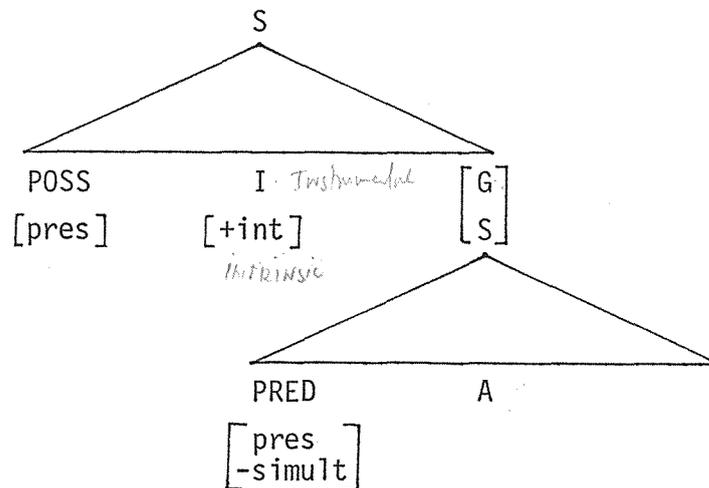


fig. 3(b)

The type of modality represented in fig. 3(b) is also that of is able to, is capable of, enable ... to and make it possible for ... to.

The last two of these modality markers are found only when the modality source, i.e. the constituent with Instrumental function, appears in surface structure, e.g.:

4 (e) Zukov's abnormally high verbal I.Q. { enables  
makes it possible for }  
him to read a thousand words a minute.

The distinctions between the connotations of the first two modality markers mentioned are very subtle. Capable of appears to be preferred when the content of the process to which the "intrinsic possibility" relates is in some way less positive or less dynamic than in the case of processes with able to (cf. 4(f) and (g)), or

when the content itself has not been "realised" at the time of utterance (cf. 4(h)).

4 (f) Jakes is { ?able to sit and watch  
capable of sitting and watching } the birds  
for hours.

(g) Jakes is { ?able to be  
capable of being } a real idiot sometimes.

(h) Zukov is { ?able to read  
capable of reading } a thousand words a  
minute although he hasn't really tried to yet.

The modal auxiliary can can be substituted for the other modality markers in all of the above cases and thus the so-called "habitual" and "characteristic" senses of this auxiliary are seen to be variants of the intrinsic Agentive possibility can. Typical features of this modality as here identified are:

- (i) the process to which the modality applies is characterised as being in present rather than future or past time;
- (ii) the modality markers here apart from can are able to (acceptable, though not preferred, in 4(f) to (h)), capable of, enable ... to and make possible for ... to.

As will be seen in the next section, one of the differences between intrinsic and extrinsic Agentive possibility is that the latter but not normally the former may be reflected by the modality marker be possible for ... to:

4 (i) ??It's possible for Zukov to read a thousand words a minute.

This modality marker is more acceptable in the "habitual" or "characteristic" sense:

4 (j) ??It's possible for Jakes to be a real idiot sometimes.

(ii) Extrinsic Agentive possibility

This type of modality is semantically closer to deontic modality than is its intrinsic counterpart, as the modality source is in some

sense extrinsic to the Agent. This extrinsic source is however here not another Agent but once again a set of circumstances which functions as an Instrument. Where this source is expressed in a transitive structure the modality marker used would normally be make it possible for ... to (rather than enable ... to - cf. 5(a)) while be able to (but not be capable of - cf. 5(b)) and possible for ... to (cf. 5(c)) as well as can (cf. 5(d)) can be used in other structures which do not directly express the modality source:

5 (a) The fact that the doctor has very few patients

{ ??enables  
makes it possible for } him to see you whenever you need him.

(b) The doctor { \*is capable of seeing  
is able to see } you whenever you need him.

(c) It's possible for the doctor to see you whenever you need him.

(d) The doctor can see you whenever you need him.

With extrinsic Agentive can the deep tense of the modality is once again characterisable as present, but this sense contrasts with the intrinsic Agentive sense in that the process can be either present (cf. 5(d) above) or future:

5 (e) The doctor can see you tomorrow.

A past process is not compatible with this sense of can:

5 (f) \*The doctor can have seen you yesterday.

The semantic representation for this sense of can is given in fig. 3(c).

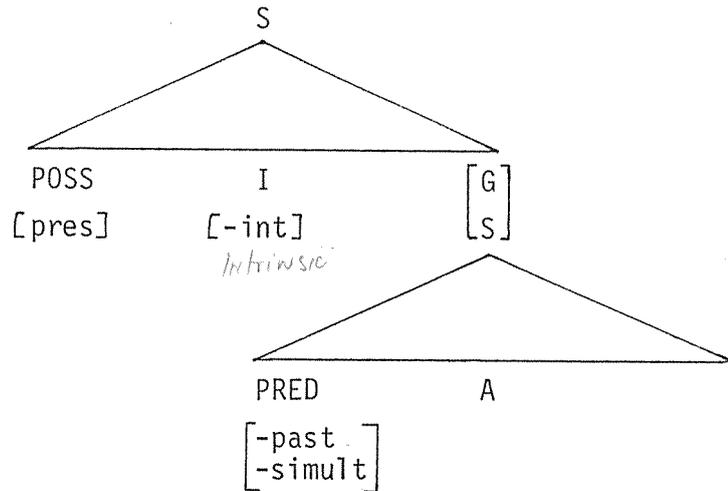


fig. 3(c)

The "intrinsic" v. "extrinsic" distinction often referred to in discussions of can does then have certain formal correlates:

- (i) extrinsic but not intrinsic Agentive can is compatible with a process which is future (cf. 5(e) v. 4(d) above); and
- (ii) although make it possible for ... to and be able to can mark either type of modality, enable ... to and be capable of are not generally acceptable as markers of the extrinsic possibility while be possible for ... to is not used to express intrinsic Agentive possibility (cf. 5(a)-(b) and 4(i) above).

Finally it should be noted that neither of these two senses of can takes simultaneous aspect:

- 5 (g) \*Zukov can be reading a thousand words a minute at this very moment.
- (h) \*The doctor can be seeing you.

#### 4.2.1.1(c) Intrinsic non-Agentive possibility

With non-Agentive subjects non-epistemic can normally relates to some enduring property or characteristic of the subject (as in 6(a) and (b)) and so the modality source may be specified as intrinsic.

- 6 (a) Diplomatic do's can be boring.
- (b) Lightning can kill.

In contrast to the case of the Agentive modalities just discussed, 6(a) and (b) cannot be paraphrased by structures containing the modality markers be able to, be capable of and enable ... to. This important formal difference is linked to the fact that the subjects in 6(a)-(b) are non-Agentive (the problem raised by the compatibility between be able to and be capable of and non-Agentive subjects in certain predications such as this building is { capable of withstanding / able to withstand } winds of 150 k.p.h. which may - oxymoronically - be said to express "passive ability", will not be entered into here).

The subject in 6(a) may be characterised as an Object i.e. "semantically the most neutral case ... conceivably the concept should be limited to things which are affected by the action or state identified by the verb" (FILLMORE 1968 : 23).

In 6(b) the subject, although being causally involved in an action, is inanimate and so functions as an Instrument, i.e. "the case of the inanimate force or object causally involved in the action or state identified by the verb" (FILLMORE 1968 : 24).

The embedded predication in the semantic representation of this type of can may then contain as arguments either an Object or an Instrument but not an Agent. As in the case of the two kinds of Agentive possibility, the modality source is characterisable functionally as an Instrument. If this source is expressed in a transitive structure the relevant modality marker is make it possible for ... to:

- 6 (c) Various factors make it possible for diplomatic do's to be boring.
- (d) The high voltages of lightning flashes make it possible for them to kill.

This transitive modality marker is probably rarely used in this type of modality but be possible for ... to is common enough:

- (e) It's possible for diplomatic do's to be boring.
- (f) It's possible for lightning to kill.

As in the case of intrinsic Agentive modality, the modality and the process must both be present. Neither a future nor a past time specifier

is possible here:

- 6 (g) \*Diplomatic do's can { have been boring last year }  
 { be boring next year }
- (h) \*Lightning can { have killed yesterday }  
 { kill tomorrow }

The semantic representation of intrinsic non-Agentive can is given in fig. 3(d).

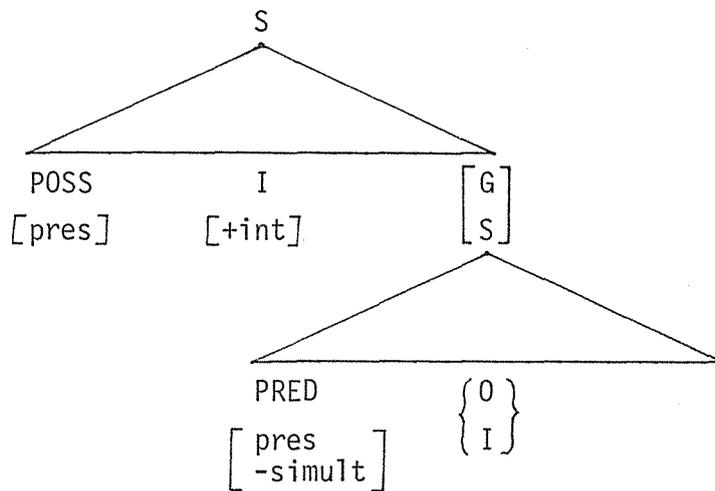


fig. 3(d)

This sense of can is also incompatible with simultaneous aspect. To the extent that a sentence such

- 6 (i) ?Lightning can be killing at this very moment.

is acceptable, the modality would appear to be epistemic rather than non-epistemic, i.e. the paraphrase would be it is possible that in preference to it is possible for ... to.

#### 4.2.1.1(d) Epistemic possibility

In the non-epistemic modalities discussed in §4.2.1.1(a) above, the modal qualification or "possibility" modalisation related to conditions on the process referred to, i.e. permission, ability, characteristic etc., but in epistemic modality the modal qualification relates more directly to the speaker's assessment of the factuality or potential factuality of the process. A speaker using an utterance which is

SP-OR.

SUBJ-OR/  
AG-OR.

feitelikeheid/-hed  
 waarlikeheid/-hed

handwritten: *handbuch / look gold*

modalised in terms of non-epistemic possibility, e.g. John can run, may be said to assert the existence of the relevant "possibility", be it permission, ability or whatever. In an epistemically modalised utterance such as John may run, on the other hand, the speaker cannot be said to assert anything in the logical sense as he does not in any way commit himself to the truth of the proposition expressed. The distinction between non-epistemic and epistemic possibility parallels the distinction made by White between the "existential" and the "problematic" types, the former expressing "the actual existence of a possibility" and the latter "the possible existence of an actuality" (WHITE 1975 : 6).

As noted in Chapter 3, the above distinction is reflected in our semantic representations by way of the different case labels assigned to the lowest embedded predication, i.e. the one which corresponds to the unmodalised proposition or process. In non-epistemic possibility this proposition expresses what is made possible by the modality source and therefore it is specified as a Goal, while in epistemic possibility the proposition has no "real" status and is merely the object of the speaker's belief, being therefore labelled as an Object, identifying "the content of a psychological event" (cf. §3.3.3.1).

The semantic representation for epistemic can is the same as that given as fig. 4(b) for epistemic may in §4.2.1.2(b) below. Epistemic possibility is discussed in greater detail in the latter section as the use of can to express this modality is very restricted. In order to show that forms of can do indeed participate in this modality, however, we must mention here the formal features by which it is identified. These are:

(i) it takes as a modality marker possible that rather than possible for ... to:

7 (a) John can run tomorrow = it is possible for John to run tomorrow (non-epistemic) *Epistemisch*

(b) John may run tomorrow = it is possible that John will run tomorrow (epistemic). *epistemisch*

(ii) the modality may be present while the process is past:

7 (c) John  $\left\{ \begin{array}{l} *can \\ may \end{array} \right\}$  have run yesterday.

(iii) as seen in §4.1.2 above, the process referred to can be represented

as taking place simultaneously with the utterance (or contemporaneously with it - hence the lack of aspect marking in semantic representations in such cases), and in English when a modal auxiliary is already present this state of affairs can only be signalled by way of the progressive aspect (cf. 7(d)). This is then a third diagnostic feature with regard to epistemic modality.

7 (d) John { ??can  
may } be running at the moment.

As seen in 7(a)-(d) can is not used in positive declarative structures to express epistemic modality. In negative and interrogative structures however it can appear as a marker of this modality:

7 (e) John can't be there = it is not possible that John is there.

(f) John can't have been there yesterday.

(g) John can't be running now.

(h) Can that be John over there? = is it possible that that is John over there?

(i) Can John have been there yesterday?

(j) Can John still be running now?

As will be seen, the fact that can practically never expresses epistemic modality in positive declarative sentences gives rise to one of the most important contrasts between congruent English and Afrikaans modal auxiliaries.

#### 4.2.1.2 MAY

The modal auxiliary may is used to express two types of modality, i.e. deontic possibility and epistemic possibility. We will not consider here the rather archaic "optative" may as in may the Lord have mercy upon you, the use of which is very restricted.

##### 4.2.1.2(a) Deontic possibility

There are stylistic differences between can and may in this sense, may being used relatively frequently in the more formal registers and can

being the usual modal in colloquial speech.

In (fairly) formal styles where both deontic can and may are found, a pragmatic distinction becomes apparent, as deontic may is what Palmer calls a "discourse oriented" modal (1974 : 100). In terms of our approach this means that the source Agent is always one of the participants in the discourse, i.e. the speaker<sup>you</sup> in statements and the hearer<sup>I</sup> in questions (in the case of may requests for permission). Deontic can, on the other hand, is not always discourse oriented (cf. 8(a) and (c) v. 8(b) and (d)).

- 8 (a) You may go = I permit you to go.  
 (b) You can go = { I permit you  
                           You are permitted } to go.  
 (c) May I go? = Do you permit me to go?  
 (d) Can I go? = { Do you permit me }  
                           { Am I permitted } to go?

This distinction is sufficiently general - and of sufficient importance in the context of second-language learning - to merit recognition in formal structures, and as our representations of the meanings of the modal auxiliaries include the specification of the modality source, it is possible for us to make such essentially pragmatic distinctions explicit: thus the source Agent in semantic representations of deontic may will take the feature [+sp./h.] ("speaker/hearer") (cf. fig. 4(a)), while this Agent is unspecified in this respect in deontic can (cf. fig. 3(a), p.56).

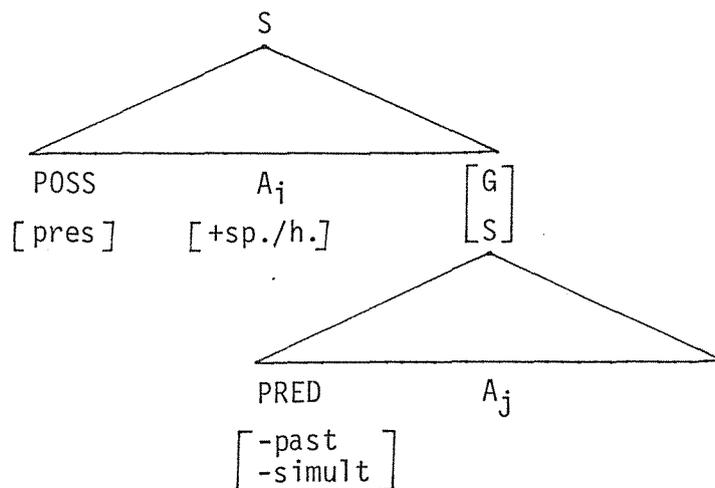


fig. 4(a)

4.2.1.2(b) Epistemic possibility

The notion of epistemic possibility has already received some attention, so it will be appropriate to present the semantic representation of epistemic may before entering into further discussion:

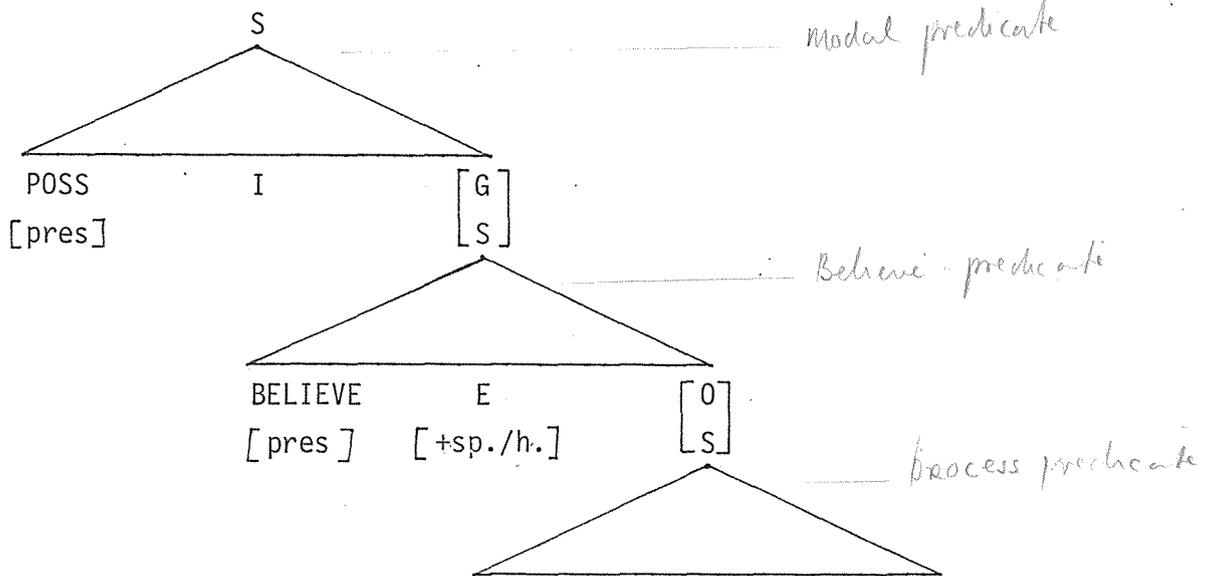


fig. 4(b)

SP-OR

The modality source is a set of circumstances functioning as an Instrument (cf. e.g. 9(a)), the Goal of the modality is the belief of - typically - the speaker (cf. e.g. 9(b)), and the process or proposition referred to is the Object of this belief. Depending on which prelexical transformations may be said to have been applied, the modality depicted here may surface as any of the following modality markers:

- 9 (a) It's my knowing that Zukov has been practising speed reading that makes it possible for me to believe that he reads a thousand words a minute.
- (b) It's possible for me to believe that Zukov reads a thousand words a minute.
- (c) It's possible that Zukov reads a thousand words a minute.
- (d) Zukov may read a thousand words a minute.
- (e) { Perhaps / Maybe } Zukov reads a thousand words a minute.

Returning to matters raised in the discussion of epistemic possibility in

the previous section (cf. §4.2.1.1(d)), the difference between 9(d) and

4 (b) Zukov can read a thousand words a minute.

must be noted. In using 9(d) the speaker would not be committing himself to the truth of the unmodalised proposition - his statement is not falsifiable - but in 4(b) the use of non-epistemic can indicates that modal qualifications are internal to the process (more specifically, to the subject) and do not relate directly to the speaker, who may be said to commit himself to the truth of the proposition, i.e. the implication here is that, if certain conditions are met, Zukov will indeed read a thousand words a minute.

As mentioned above, this difference is reflected in our semantic representations by way of differences in the functional-semantic status of the embedded predication in each case and the presence of a BELIEVE predicate in the epistemic modality representation. The non-committal nature of may here is reflected also by the fact that POSS is the higher of the two predicates, cf. 9(g) v. (h):

9 (f) Zukov may read a thousand words a minute, but I doubt it.

(g) It is possible for me to believe that Zukov reads a thousand words a minute, but I doubt it.

(h) ??I believe that it is possible that Zukov reads a thousand words a minute, but I doubt it.

A distinctive feature of fig. 4(b) is the absence of any tense selection in the lowest predication. This reflects a typical characteristic of epistemic modality as noted by various writers including Halliday:

"The modalities [epistemic modalities], being outside the ideational meaning of the clause, are also outside the domain of tense; like other forms of speaker's comment, they relate only to speaker-now and in modality the PROCESS may have any tense" (1970 : 336 and 338).

As deep tense has been defined in terms of time of utterance, the feature [pres] on the modal predicate represents this "speaker-now" orientation (being closely associated with the modal predicate, the BELIEVE predicate takes the same deep-tense feature).

The lowest predication, i.e. the process, can then be in any of the

tenses (and aspects) so far mentioned, as shown in 9(i)-(l):

- 9 (i) Zukov may  $\left\{ \begin{array}{l} \text{read} \\ \text{be reading} \end{array} \right\}$  a lot these days (present contemporaneous).  
 (j) Zukov may be reading at this very moment (present simultaneous).  
 (k) Zukov may read that book later (future).  
 (l) Zukov may have read that book (past).

It is then only when the non-oblique modal auxiliaries are used epistemically that the process to which they refer may be in the past. One cannot, for example, readily speak of present permission or ability relating to something in the past, as is attested by the unacceptability of 9(m) and (n), but present assessment of the relative factuality of past states or events, as in 9(l) above, is perfectly feasible.

- 9 (m) ??He is allowed to have read that book.  
 (n) ??He is able to have read that quickly.

Where a modal auxiliary is used and the relevant process is in the past the surface main verb cannot take a past inflection: as noted in Chapter 2, the modal auxiliaries must be followed by an infinitive, and here have is selected. Where the modality marker is one which, like be possible that, takes a tensed complement clause, there is no such problem and the relevant tense is expressed in the normal way:

- 9 (o) It is possible that Zukov read that book yesterday.  
 (p) It is possible that Zukov has read that book already.  
 (q) It is possible that Zukov had read that book by then.

The surface tense forms read, has read and had read reflect underlying deep-tense distinctions between a past time, a past time which is in some way relevant to the present, and a past time which is in some way relevant to an already established past time. These are, of course, in traditional terms, the imperfect, perfect and pluperfect tenses respectively.

The important point at issue here is that a sentence such as 9(l) is with respect to tense three-ways ambiguous, i.e. it could be paraphrased along the lines of 9(o), (p) or (q), and so it will be obvious that after modal auxiliaries the three tense forms are neutralised to have + main verb + past participle.

Having pointed out this ambiguity we will not consider the question in further detail. Our main concern is the specification of the range of tenses which the modal predicate selects and where the construction modal auxiliary + auxiliary have is under discussion the feature [+past] covers all three possibilities.

Finally it should be noted that the neutralisation and the resulting ambiguity referred to here bring the English constructions semantically into line with the essentially congruent Afrikaans constructions. Thus

9 (l) Zukov may have read that book.

and (r) Zukov mag daardie boek gelees het.

are ambiguous with respect to deep tense in the same way.

#### 4.2.2 Non-oblique forms: Afrikaans

A comparison between a word-count deriving from the R.A.U. project Frekwensiebepaling ... and figures given by Joos for a spoken English corpus (J00S 1964 : 177-9) reveals a number of interesting differences in the statistical patterning of the modal auxiliaries in each language (cf. table 1 p. 72).

One feature of particular relevance here is the relative predominance of non-oblique as opposed to oblique forms in Afrikaans. In the English corpus can, for example, appears a little more than twice as frequently as could (261 v. 123 occurrences) while the overall proportion for kan as against kon is more than seven to one (2604 v. 353 occurrences) in Frekwensiebepaling .... A breakdown of statistics for each of the three corpora on which the latter project is based reveals a correlation between formality of register and relative frequency of oblique v. non-oblique forms. In the "spontaneous" corpus (conversation between intimates) the ratio of occurrences of kan v. kon is nearly sixteen to one (379 v. 24); in the "main" corpus (informant speaking to researcher) it is approximately seven to one (1953 v. 271); and in the "SABC" corpus (radio interviews, discussions etc.) it falls to less than five to one (272 v. 58).

From the point of view of register the "SABC" corpus is probably the one which is most nearly equivalent to the English corpus mentioned above

AFRIKAANS									ENGLISH		
CORPUS	"Spontaneous"		"Main"		"S.A.B.C."		"Total"		Joos		
WORD	no.	%	no.	%	no.	%	no.	%	WORD	no.	%
<u>kan</u>	379	<u>0,64</u>	1 953	<u>0,62</u>	272	<u>0,53</u>	2 604	<u>0,61</u>	<u>can</u>	261	<u>0,21</u>
<u>kon</u>	24	<u>0,04</u>	271	<u>0,09</u>	58	<u>0,11</u>	353	<u>0,08</u>	<u>could</u>	123	<u>0,10</u>
<u>mag</u>	3	<u>0,01</u>	69	<u>0,02</u>	18	<u>0,04</u>	90	<u>0,02</u>	<u>may</u>	126	<u>0,10</u>
<u>mog</u>	-	-	-	-	-	-	-	-	<u>might</u>	121	<u>0,10</u>
<u>sal</u>	339	<u>0,58</u>	1 255	<u>0,40</u>	207	<u>0,40</u>	1 801	<u>0,43</u>	<u>shall</u>	11	<u>0,01</u>
<u>sou</u>	29	<u>0,05</u>	168	<u>0,05</u>	85	<u>0,16</u>	282	<u>0,07</u>	<u>should</u>	98	<u>0,08</u>
<u>wil</u>	220	<u>0,37</u>	724	<u>0,23</u>	145	<u>0,28</u>	1 089	<u>0,26</u>	<u>will</u>	121	<u>0,10</u>
<u>wou</u>	38	<u>0,06</u>	136	<u>0,04</u>	29	<u>0,06</u>	203	<u>0,05</u>	<u>would</u>	338	<u>0,27</u>
<u>moet</u>	361	<u>0,61</u>	1 765	<u>0,56</u>	201	<u>0,39</u>	2 327	<u>0,54</u>	<u>must</u>	110	<u>0,09</u>
<u>moes</u>	35	<u>0,06</u>	238	<u>0,08</u>	57	<u>0,11</u>	330	<u>0,08</u>	-		
TOTAL	58 979		315 745		51 600		426 324		TOTAL	±80 000	

TABLE 1

FREQUENCY OF OCCURRENCE OF  
AFRIKAANS AND ENGLISH MODAL AUXILIARIES

TOTAL = total number of words in corpus

Total = combined total for the three Afrikaans corpora

no. = number of occurrences of relevant word

% = percentage of total number of words in corpus

(a transcript of a murder trial held in England), but we see that even here the relative incidence of the non-oblique v. the oblique forms is more than twice as high in Afrikaans as in English (nearly five to one as against just over two to one). As seen in table 1 the pattern of higher relative incidence of non-oblique forms in Afrikaans is characteristic of all the modal auxiliaries and some preliminary explanation of this fact is called for here.

Various factors are identifiable, of which the most important are the following:

- (i) the more widespread use in Afrikaans of the "historic present" in narrative style, cf.:

10 (a) I turned her so I could see her face.  
(F.A.: 32)<sup>3)</sup>

(b) Ek draai haar gesig sō dat ek dit kan sien.  
(V.W.: 26)

- (ii) the use of non-oblique forms in Afrikaans in certain types of dependent clause, such as "indirect speech", where the higher verb is in the past:

10 (c) He said ... the drivers could come and get their stew.  
(F.A.: 47)

(d) Hy het beduie ... dat my manne maar hulle kos kan kom haal.  
(V.W.: 40)

- (iii) the less frequent use in Afrikaans of a "hypothetical" mode signalled by oblique forms, cf.:

10 (e) If Simon walked in the middle of us then we could talk over his head.  
(L.F.: 32)

(f) As Simon tussen ons loop ... dan kan ons oor sy kop met mekaar praat.  
(R.V.: 27)

and the related phenomenon of less frequent use of oblique forms as

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3) For clarification of these abbreviations, see the list of primary sources in the bibliography.

politeness markers in Afrikaans, cf.:

- 10 (g) Could I see her just for a moment? (F.A.: 42)  
 (h) Kan ek haar net vir 'n oomblikkie sien, asseblief? (V.W.: 36)

As suggested by the formality-relative frequency correlation mentioned above, factors (a)-(c) relate essentially to stylistic rather than semantic questions.

A second marked difference in the statistics for Afrikaans and for English is the higher overall frequency of modal auxiliaries in the former. Thus 2,14% of the words in the combined Afrikaans corpora are modal auxiliaries while the figure for English is almost exactly half of this, i.e. 1,06%. The main factor operative here is probably the fact that the Afrikaans modal auxiliaries can co-occur, catenatives being used after the first auxiliary in English (cf. §2.3.1.2 above). This fact does hold implications for our semantic analysis in so far as the (non-oblique) modals which follow sal may be said to express future modality, but apart from this it is not of particular semantic relevance.

The relatively high frequency of non-oblique modals in Afrikaans as contrasted with English can thus be ascribed to a number of factors and it is important to note here that most, although not all, of these factors are essentially non-semantic.

#### 4.2.2.1 KAN

All the non-epistemic senses identified for can above are also identifiable for kan and in addition the latter is regularly used in the epistemic sense, contrasting with the limited epistemic role of the former. Thus we have here an essentially semantic factor which contributes to the raising of the frequency of the Afrikaans form relative to the congruent English one.

#### 4.2.2.1(a) Deontic possibility

As in English, this is the permission sense of kan, e.g.:

- 11 (a) Stoffel kan die Mercedes leen

and synonymous modality markers include forms of toelaat and word toegelaat.

The arguments on the modality predicate and on the process predicate obligatorily include an Agent in deep structure, as in English. Where the modality source, i.e. the higher Agent, surfaces, the modality marker selected must be the relevant transitive verb, normally unpassivised, e.g.

11 (b) Stoffel se pa laat hom toe om die Mercedes te leen.

Where the modality source is not specified the passive form of the transitive verb (cf. 11(c)) or the modal auxiliary (cf. 11(a)) is used:

11 (c) Stoffel word toegelaat om die Mercedes te leen.

DM { As in the case of all modal auxiliaries which are non-oblique in form and <sup>pragmatics</sup> non-epistemic in sense, this kan can follow sal and hence the modality itself in semantic representation is present (cf. 11(a)) or future (cf. 11(d)), i.e. non-past:

11 (d) Stoffel sal die Mercedes kan leen.

*Toestemming: non-epistemic*

The modality cannot normally be past, as seen by the unacceptability of

11 (e) \*Verlede week kan Stoffel die Mercedes leen.

The deep tense of the process is also non-past:

11 (f) Stoffel kan deesdae die Mercedes leen.

(g) Stoffel kan die Mercedes oormôre leen.

(h) !Stoffel kan die Mercedes gister geleen het.

The kan + ge... het construction is very rarely used in Afrikaans (cf. e.g. DE VILLIERS 1968 : 94-5) but when it does appear it generally expresses - as does the more frequently used English counterpart may have - only epistemic modality.

This sense of kan cannot take simultaneous aspect. Thus

11 (i) !Stoffel kan besig wees om die Mercedes te leen

is not possible as an expression of deontic modality.

The semantic representation of this sense of kan is given in fig. 5(a) which is in all respects identical to that given for can in fig. 3(a) (p. 56) except for the broader deep-tense specification on the modal predicate.

*Deontic kan  
∴ non-epis deontic  
Permission*

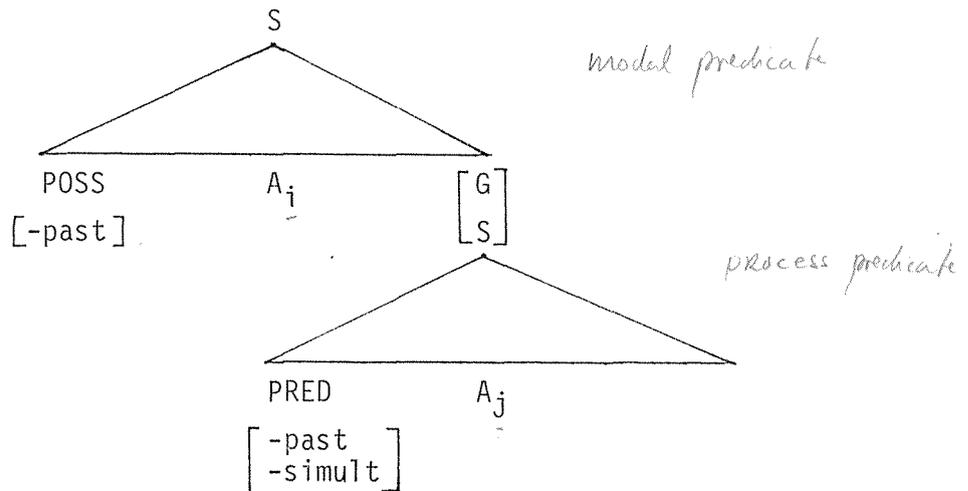


fig. 5(a)

#### 4.2.2.1(b) Agentive possibility

As noted above (§ 4.2.1.1(b)), the process in this type of modality also involves an Agent but it differs from deontic modality in that the modality source functions as an Instrument and not an Agent. As in English this source may be intrinsic or extrinsic, a distinction which does have certain formal correlates.

##### (i) Intrinsic Agentive possibility

As in the case of English one of the most important formal distinctions between this sense of kan and the extrinsic sense has to do with the grammatical-semantic question of deep-tense selection. Consider the following:

- 12 (a) Karel kan nou fietsry.
- (b) !Karel kan volgende week fietsry.
- (c) Karel sal volgende week kan fietsry.
- (d) !Karel kan verlede week fietsgery het.

Only 12(a) and (c) can be interpreted as expressing the intrinsic

modality ("ability" as a result of 'interior' cause"), here the learned skill which is or will be an enduring quality of the Agent. In these sentences the deep tense on the modality is in each case the same as the deep tense on the process, i.e. present and future respectively, while in 12(b) and (d) the tense specifications differ. The latter sentences are however unacceptable as expressions of the intrinsic modality: in so far as 12(d) is acceptable at all it must be interpreted epistemically, as we have seen, while kan in 12(b) may be either epistemic (cf. dit is moontlik dat Karel volgende week sal fietsry as a paraphrase), deontic (cf. Karel is toegelaat om volgende week fiets te ry) or extrinsic Agentive, where the focus is not on some quality of the Agent but rather on unspecified external factors such as here, for instance, the availability of a bicycle (cf. as a paraphrase dit is moontlik vir Karel om volgende week fiets te ry).

The requirement that the deep tense of the modality and the process be identical here parallels the case of English "intrinsic" can, but in Afrikaans of course the relevant tense may be future as well as present, i.e. it is non-past. In our semantic representation of this sense of kan we will reflect the identity requirement by way of a variable, say  $\alpha$ , on the feature [-past] in both predicates, which will signal that the same narrower deep-tense specification ([pres] or [fut]) must be selected for each predicate. The semantic representation is given as fig. 5(b):

sal kan

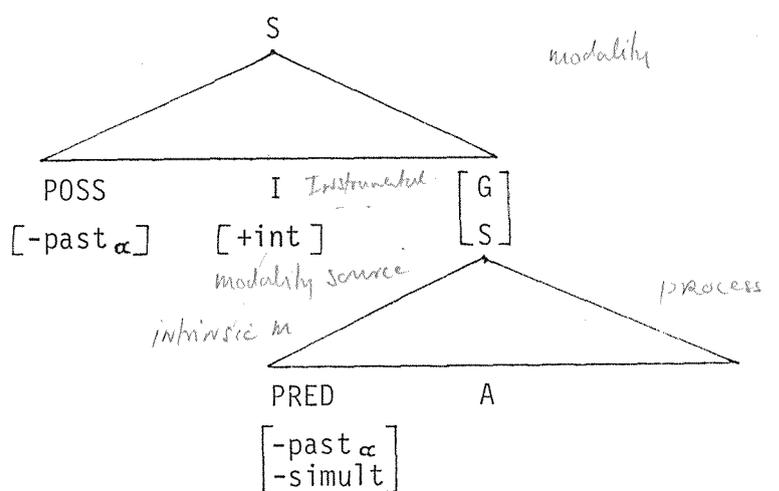


fig. 5(b)

As the modal auxiliaries can co-occur in Afrikaans sentences, the need for suppletive forms (e.g. English be able to) is here not so great and so the almost complete absence of synonymous modality markers for the intrinsic sense of kan is perhaps understandable. Sentences 12(e) and (f) are not synonymous with the "intrinsic" interpretation of 12(a):

12 (e) Dit is nou moontlik vir Karel om fiets te ry.

(f) Karel is nou in staat om fiets te ry.

The focus here is not on an enduring quality of the Agent, and so the modality markers moontlik wees vir and in staat wees signal a different kind of modality. It would appear that moontlik wees vir is however a possible modality marker of intrinsic Agentive possibility when the quality in question is manifested sporadically, as in the "characteristic" or "habitual" senses of kan (cf. 4(f) and (g) above):

12 (g) Hy kan ure lank na die voëls sit en tuur.

(h) Dit is vir hom moontlik om ure lank na die voëls te sit en tuur.

(i) !Hy kan volgende jaar weer ure lank na die voëls sit en tuur.

The unacceptability of 12(i) in non-epistemic interpretation supports the analysis of this kan as expressing an intrinsic rather than an extrinsic modality.

When the modality source (I in fig.5(b)) does appear in surface structure the transitive forms of these modality markers, i.e. moontlik maak vir and in staat stel, can however be used as markers of the intrinsic modality:

12 (j) Die feit dat Karel vir sy ouderdom so behendig is

{ stel hom in staat  
maak dit moontlik vir hom } om nou (al) fiets te ry.

(ii) Extrinsic Agentive possibility

As mentioned in the previous section, the source of the modality in this kind of possibility is in some sense external to the Agent.

*fokus.*

Because the focus is here not on some enduring, inherent quality of the Agent, the deep tense of the modality may be present while the process is future, as in 12(b) above. The modality of this sense of kan is represented in fig. 5(c) (cf. fig. 3(c) for English):

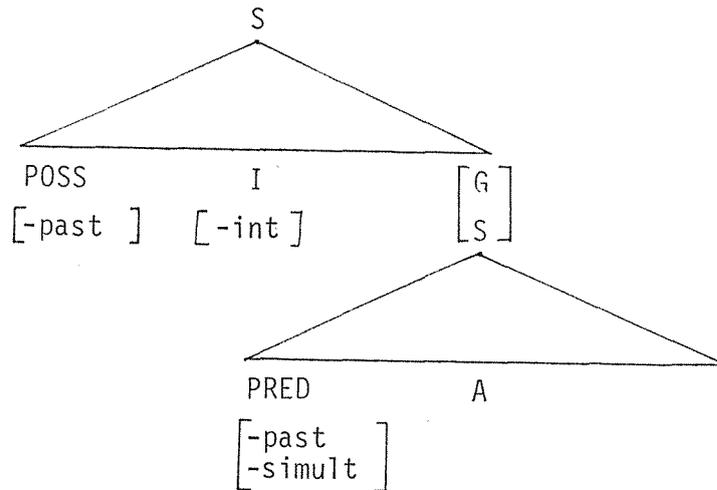


fig. 5(c)

Synonymous modality markers here are moontlik wees vir and in staat wees (cf. 12(e) and (f) above) and moontlik maak vir and in staat stel where the modality source is given in surface structure (cf. 13(a)).

13 (a) Die feit dat Karel se fiets nou herstel is

{ stel hom in staat  
maak dit moontlik vir hom } om nou fiets te ry.

As in the case of all the other non-epistemic senses of the modal auxiliaries, neither intrinsic nor extrinsic Agentive kan is compatible with simultaneous aspect. Thus e.g.

13 (b) Karel kan besig wees om fiets te ry

can only be interpreted epistemically.

#### 4.2.2.1(c) Intrinsic non-Agentive possibility

This sense of kan applies where the subject of the relevant sentence is non-Agentive, i.e. when it is functional-semantically either an Instrument or an Object (cf. 14(a) and (b) respectively and also § 4.2.1.1(c) above).

- 14 (a) Sterk winde kan dakke afwaai.  
 (b) Ysskaats kan groot pret wees.

This sense of kan may also express future modality, e.g.:

- DM } 14 (c) Sterk winde sal nog volgende jaar dakke kan afwaai.  
 (d) Ysskaats sal volgende jaar nog groot pret kan wees

but as in the case of intrinsic Agentive possibility, modality and process should both take the same deep-tense specification. Thus 14(e) and (f), in which this is not so, are interpretable essentially as epistemic statements only; although the distinction between epistemic ("possible existence of an actuality") and non-epistemic ("actual existence of a possibility") modality becomes rather blurred where the process relates to non-Agentive participants.

- epistemic } 14 (e) Sterk winde kan nog volgende jaar dakke afwaai.  
 (f) Ysskaats kan volgende jaar nog groot pret wees.

The semantic representation of the intrinsic sense of kan is given in fig. 5(d) (cf. fig. 3(d)).

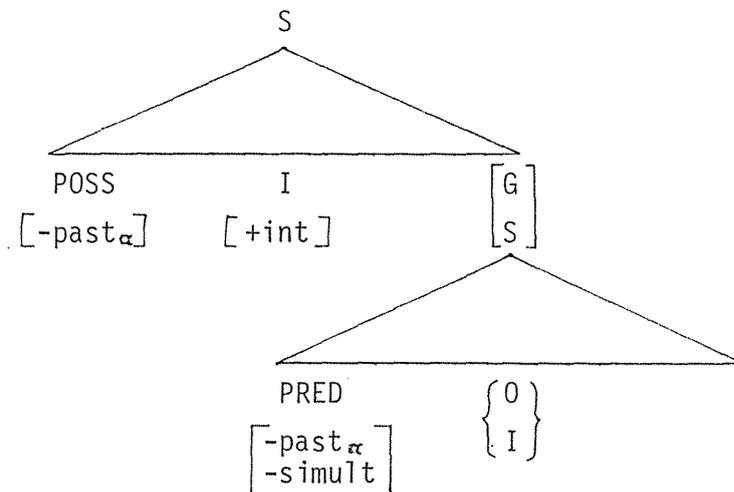


fig. 5(d)

There are not many modality markers which may be regarded as synonymous with this sense of kan and it would appear that those mentioned above are more acceptable where the argument in the lower predicate is an Instrument than when it is an Object. Thus moontlik wees vir is quite

acceptable in paraphrases of 14(a) and less so for 14(b), while in staat wees is probably only marginally applicable in a paraphrase of 14(a) but impossible with respect to 14(b). Similarly, when the modality source is given in surface structure, moontlik maak vir and in staat stel may both be used when the lower predicate in deep structure contains an Instrument (cf. 14(g)), but where it contains an Object the former marker is possible but the latter impossible (cf. 14(h)):

14 (g) Die fenomenale krag van sterk winde  $\left\{ \begin{array}{l} \text{stel hulle} \\ \text{maak dit} \end{array} \right.$   
in staat  
vir hulle moontlik } om dakke af te waai.

(h) Dis die geselligheid wat daarmee gepaard gaan wat  
 $\left\{ \begin{array}{l} *ysskaats \text{ in staat stel} \\ ?\text{dit vir ysskaats moontlik maak} \end{array} \right.$  } om groot pret te wees.

As in the case of the other non-epistemic modalities, intrinsic non-Agentive kan cannot take a past (cf. 14(i)) or a simultaneous process (cf. 14(j)):

14 (i) !Ysskaats kan verlede jaar groot pret gewees het.

(j) !Sterk winde kan besig wees om dakke af te waai.

#### 4.2.2.1(d) Epistemic possibility

As has been indicated above, all the example sentences used in the discussion of non-epistemic senses of kan may be interpreted epistemically. Thus 15(a)-(d) below, which contain the marker of epistemic possibility moontlik wees dat, are acceptable paraphrases of 11(a), 12(a), 14(a) and 14(b) respectively:

15 (a) Dit is moontlik dat Stoffel die Mercedes leen.

(b) Dit is moontlik dat Karel nou fietsry.

(c) Dit is moontlik dat sterk winde dakke afwaai.

(d) Dit is moontlik dat ysskaats groot pret is.

In contrast to the case of the non-epistemic modalities, differences in the functional-semantic status of the surface subjects of sentences containing epistemic kan cannot be said to give rise to different epistemic senses of kan. Distinctions between the various non-epistemic

senses of both kan and can were made on the basis of certain formal differences i.e. those regarding paraphrase relations and deep-tense specifications. It was normally found that these differences were reflexes of underlying differences in the functional-semantic status of arguments, but this did not always apply, as shown by the intrinsic v. extrinsic Agentive possibility senses where the status of the arguments in semantic representation was identical.

Differences in the status of the surface subject of the process do not however correlate with any marked differences in paraphrase relations or deep-tense specification where the modality of the relevant auxiliary is epistemic. This is hardly surprising in view of the fact that this type of modality relates in the first instance to the speaker's assessment of the factuality of the process and only secondarily to the role played by the participants in the process, a state of affairs reflected in our semantic representations by the inclusion of a predication of (speaker's) belief as goal of the modality.

The functional-semantic status of the participants in the process is of some relevance however as it is a feature which helps to determine interpretation preferences. Thus although sentences 11(a), 12(a), 14(a) and 14(b) (repeated below) can all be interpreted epistemically, it would appear that the more "active" the role of the surface subject of the sentence, the greater is the preference for a non-epistemic interpretation.

11 (a) Stoffel kan die Mercedes leen.

*Coest.  
ability.*

12 (a) Karel kan nou fietsry.

14 (a) Sterk winde kan dakke afwaai.

*monthlik*

14 (b) Ysskaats kan groot pret wees.

*monthlik*

In 11(a) and 12(a), where the subjects are Agents, non-epistemic interpretations are strongly preferred (precisely which non-epistemic interpretation is largely a question of the meaning of the verb and of contextual factors); in 14(a), where the subject is an Instrument, the preference for the non-epistemic sense is less marked; and in 14(b), where the surface subject is functionally an Object, there would appear to be no strong bias in favour of the non-epistemic meaning. The frequent use of epistemic kan in passive constructions and with stative

verbs such as wees, which normally take an Object, attests further to the relevance of the functional-semantic status of the surface subject in determining preferred interpretations.

Because of the pattern of preference identified here, where sentences with Agentive or Instrumental subjects express epistemic possibility, this is generally achieved by way of non-ambiguous modality markers such as miskien, dalk, moontlik and moontlik wees dat (cf. 15(a)-(c) above) in preference to kan. Mag, too, is often preferred to kan in such cases, particularly where confusion with the only other sense of mag (deontic) is unlikely (e.g. 12(a) above) or impossible (e.g. 14(a) above).

As in the case of epistemic may (and can), the modality expressed by epistemic kan is present but the process can reflect any deep tense or aspect:

- 15 (e) Die President kan nou in Pretoria wees.
- (f) Die President kan môre in Pretoria wees.
- (g) ?Die President kan gister in Pretoria gewees het.
- (h) Die President kan deesdae baie dikwels deur Pretorianers gesien word. (non-simultaneous)

Unlike the other senses of kan and in accordance with the view of  
 × epistemic modality as being outside the domain of tense, epistemic kan  
cannot be regarded as expressing future modality. Thus, for example,

15 (i) Die President sal môre in Pretoria kan wees  
can only be interpreted as expressing a future modality if die President  
is interpreted agentively with kan as a marker of extrinsic Agentive  
possibility, a possible paraphrase being

- 15 (j) Dit sal môre vir die President moontlik wees om in Pretoria te wees.

If 15(i) is interpreted epistemically, the modality is still present despite the presence of sal: 15(k), in which the epistemic meaning is objectified, is not an acceptable paraphrase of 15(i).

- 15 (k) Dit sal vir my môre moontlik wees om te glo dat die President  
 in Pretoria sal wees.

The semantic representation for epistemic kan is then exactly the same as that given for epistemic may in fig. 4(b) (p. 68).<sup>4)</sup>

As seen above, nearly synonymous modality markers are miskien, dalk, moontlik, moontlik wees dat, vir my moontlik wees om te glo dat (where E is not deleted) and vir (my) moontlik maak om te glo dat (where both I - the modality source - and E are expressed, cf. 15(1)):

15 (1) Die feit dat daar baie nuuskieriges is wat buite die President se woning staan maak dit vir my moontlik om te glo dat hy nou in Pretoria is.

#### 4.2.2.2 MAG

As in the case of the congruent English modal may, mag is normally used to express either deontic possibility or epistemic possibility. The "optative" meaning, as in

16 (a) ... hy bid dat sy tog gewortel mag wees in 'n plek wat sy lief het.(R.)

is possibly more frequent in Afrikaans than in English, but is nevertheless still rare and we shall not consider it further here.

#### 4.2.2.2(a) Deontic possibility

Practically all the essential differences between mag and kan here are stylistic rather than semantic. It would appear that mag as a marker of formal register is even more marked than is may when it signals present permission. Thus in translations, for example, kan rather than mag is regularly used where the English is sufficiently formal to warrant the use of may e.g.

17 (a) May I see the plates again please? (F.A. : 88)  
(b) Kan ek weer die plate sien, asseblief Dokter? (V.W. : 81)

---

4) It must be remembered that BELIEVE, like POSS, is an abstract predicate expressing a semantic concept and not a phonological entity.

The relatively low frequency of occurrence of mag with respect to both kan and may (approximately two-thirds of the occurrences of mag in Frekwensiebepaling ... express deontic modality), as seen in table 1, together with the fact that frequency of deontic mag was found to correlate positively with the degree of formality of the corpus, are further indications of the markedness of this modal.

In contexts which are non-performative (i.e. not permission-granting or permission-requesting) however, mag does not appear to be so marked stylistically, cf.:

17 (c) As mens nou streng volgens wet gaan dan mag ons eintlik  
nie 'n dokter se voorskrif verander ... (M.)

The use of mag in such circumstances derives possibly from the speaker's desire to stress the deontic meaning and thus to avoid the more polysemous kan.

In an English translation of 17(c) typical modality markers would be not allowed and can't, but may not would not normally be used as may is generally discourse oriented (cf. §4.2.1.2(a)). It is because mag, like kan, is not restricted in this way that, unlike may, it is found in structures which are clearly questions and not requests for permission, as e.g. interrogative structures with second-person subjects, where the deontic source is a third party and not the addressee, cf.:

17 (d) Mag  $\left\{ \begin{array}{l} \text{ek} \\ \text{jy} \end{array} \right\}$  jou pa se motor leen?

17 (e) May  $\left\{ \begin{array}{l} \text{I} \\ \text{??you} \end{array} \right\}$  borrow your father's car?

Despite the stylistic markedness of mag, in one important respect it has wider application than kan: it may be used to express past as well as present and future modality, e.g.:

17 (f) In die ou dae mag Stoffel nog sy pa se motor (ge)leen (het).<sup>5)</sup>

5) The mag ge- ... het form is possible here but in such cases an epistemic interpretation (with present modality) is preferred.

let  
SCOPE

This grammatical-semantic extension is no doubt a consequence of the fact that the oblique form mag is practically extinct. When the modality expressed by mag is past the process is also past cf. 17(g) v. (h):

17 (g) Gister is Stoffel toegelaat om die motor mōre te leen.

(h) \*Gister mag Stoffel die motor mōre leen.

As in the case of all the other non-epistemic modals, mag takes a non-simultaneous process:

17 (i) !Stoffel mag besig wees om die motor te leen.

The semantic representation for mag is given as fig. 6(a) (cf. fig.5(a), p. 76 for kan and fig.4(a), p. 67 for may).

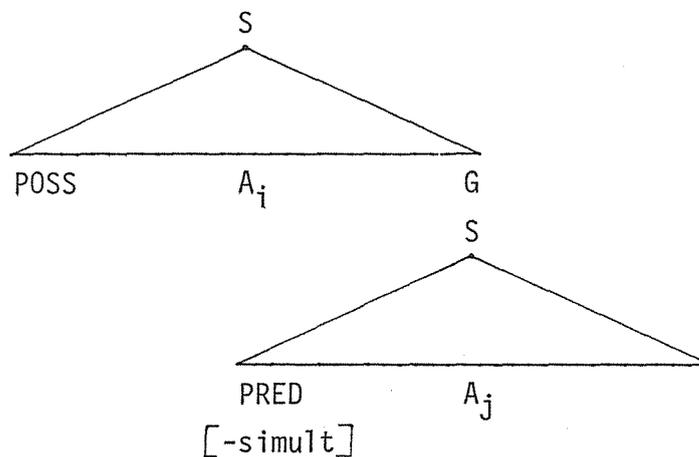


fig. 6(a)

As in the case of kan (cf. §4.2.2.1(a)), alternative markers include forms of toelaat and toegelaat word.

#### 4.2.2.2(b) Epistemic possibility

There is no strict semantic difference between mag and kan here.

As noted in the discussion of epistemic kan, it is likely that mag will be preferred in circumstances where the associated subject has

Agentive status and where confusion with the deontic sense of mag is unlikely. This explains the preference for mag in e.g. de Villiers' example where an epistemic meaning is intended:

- 18 (a) En hoekom sal hy gedurig rondkyk asof hy bang is dat iemand hom mag sien?

(DE VILLIERS 1968 : 85)

Mag, however, differs from kan as it expresses a lesser degree of commitment to the factuality of the process and hence appears frequently in "concessive" environments, e.g.:

- 18 (b) ... dit mag natuurlik wees dat ons mense dink dit is 'n swakheid ... (R)  
 (c) Ek weet nie, ek mag verkeerd wees, maar dit is my filosofie oor die saak (R)

The semantic structure of epistemic mag is identical to that of epistemic kan and may (cf. fig. 4(b)), the deep-tense and aspect restrictions being identical. As an epistemic modal, this mag cannot express past modality, as suggested by de Villiers for the sentence

- 18 (d) Dié soort lewe mag vir die Hollanders mooi gewees het.

(DE VILLIERS 1968 : 85)

The process is indeed past here but the modality is not, 18(e), for example, not being an acceptable paraphrase of 18(d):

- 18 (e) Dit was moontlik dat dié soort lewe vir die Hollanders mooi was.

The modality markers identified as synonymous with epistemic kan (cf. §4.2.2.1(d)) are applicable to epistemic mag too.

#### 4.3 Oblique forms

The oblique forms of the "possibility" modal auxiliaries are could and might for English and kon for Afrikaans. As the Afrikaans for mog is practically never used (cf. DE VILLIERS 1968 : 85 and also

table 1) it will not be discussed here.

As noted above, the terms "oblique" and "non-oblique" relate to a formal contrast and it is our purpose here to identify the semantic correlates of this contrast in respect of both languages.

Discussing the position in English, Twaddell states: "A construction containing the 'Past' modification [an oblique form] ... has either a limitation to the chronological past, or a focus upon non-reality, or is automatic in 'sequence of tenses'" (1968 : 7). Although the so-called "sequence-of-tense rule" in English could not be regarded as an obligatory transformational rule because the speaker is generally free to select a non-oblique form if the relevant modality or process is deep-tense non-past (cf. 19(a)), where the oblique form results solely from the workings of such a rule (cf. 19(a)) it cannot be associated with any correlative semantic feature. Thus while could in 19(b) is deep-tense past in any event, the choice of could in 19(a) is conditioned by syntactic and not semantic factors.

19 (a) He said they  $\left\{ \begin{array}{c} \text{could} \\ \text{can} \end{array} \right\}$  play tomorrow.

(b) He said they  $\left\{ \begin{array}{c} * \text{can} \\ \text{could} \end{array} \right\}$  play yesterday.

In Afrikaans no sequence-of-tense rule exists and the position here is in some ways just the opposite to that in English. Thus in reported speech, for example, where the relevant process or modality is non-past a non-oblique form is obligatory (cf. 19(c)), while even in past environments a non-oblique form is generally preferred in the complement clause (cf. 19(d) and §4.2.2 above):

19 (c) Hy het gesê hulle  $\left\{ \begin{array}{c} * \text{kon} \\ \text{kan} \end{array} \right\}$  môre speel.

(d) Hy het gesê hulle  $\left\{ \begin{array}{c} ? \text{kon} \\ \text{kan} \end{array} \right\}$  gister speel.

This difference in the selection of surface-tense forms in English and Afrikaans complement clauses accounts in part for the relatively high frequency of oblique forms in the former language and it is obviously a question which must be dealt with in any comprehensive contrastive analysis. However, as the factors responsible for this difference are

essentially syntactic rather than semantic we will not consider this question any further here but will confine ourselves to the properly semantic values which may be signalled by oblique forms in both languages, i.e. "chronological past" and "unreality". In the context of the discussion of modal auxiliaries here we will use the terms "past modality" and "remote modality" for these values.

#### 4.3.1. Past modality

The oblique forms of the modal auxiliaries in both English and Afrikaans are regularly used to signal a past modality:

20 (a) When she was younger she  $\left\{ \begin{array}{l} \text{was able to} \\ \text{could} \end{array} \right\}$  sing beautifully.

(b) Hulle  $\left\{ \begin{array}{l} \text{was nie eers in staat om te} \\ \text{kon nie eers} \end{array} \right\}$  loop nie.

The epistemic modal auxiliaries represent an exception here.

Because they always reflect a "speaker-now" orientation (cf. §4.2.1.2(b)) the modality expressed is always present time, whether the form of the auxiliary is non-oblique or oblique. Thus if 20(c) is interpreted epistemically it is synonymous with 20(d) but not with 20(e):

20 (c) She could sing beautifully.

(d) It is (just) possible that she sings beautifully.

(e) ??It was possible that she sang beautifully.

In our semantic representations past modality will be indicated by the feature [+past] on the modal predicate.

#### 4.3.2 Remote modality

The description "remote" could be used in a general sense to characterise the common meaning feature of practically all oblique forms of the modal auxiliaries, i.e. that of a relatively greater degree of removal from actuality, but we will reserve this term for remoteness which is not in the first instance chronological and thus contrasts with the "remoteness" of past time referred to in the previous section.

The semantic notion of (non-chronological) remoteness as associated with

the oblique forms of the modal auxiliaries (and other verbs too) in both English and Afrikaans may then be characterised as relating to a greater degree of modal qualification (cf. §3.3.2) or "hedging", whether in respect of speaker's assessment of the factuality of the proposition expressed (epistemic) or in respect of the process referred to (non-epistemic). As will be seen, the colour of this remoteness varies according to factors such as the type of modality being expressed and the syntactic-semantic context in which the relevant form is used. The range of types of remoteness expressible varies also from one modal auxiliary to another and there are several cross-linguistic differences.

#### 4.3.2.1 Remote epistemic modality

In epistemically modalised sentences the remoteness expressed may be characterised as a greater degree of "hedging" on the part of the speaker as to the factuality of the predication (cf. 21(a) v. (b) and 21(c) v. (d)).

21 (a) That banned linguistics book  $\left\{ \begin{array}{l} \text{must} \\ \text{may} \end{array} \right\}$  be in the library.

(b) That banned linguistics book  $\left\{ \begin{array}{l} \text{should} \\ \text{might} \end{array} \right\}$  be in the library.

(c) Daardie boek  $\left\{ \begin{array}{l} \text{moet} \\ \text{kan} \end{array} \right\}$  in die biblioteek wees

(d) Daardie boek  $\left\{ \begin{array}{l} \text{behoort in die biblioteek te} \\ \text{kan miskien in die biblioteek} \end{array} \right\}$  wees.

A number of points arise from these examples:

Firstly, although should is not formally related to must (which has no oblique counterpart), the semantic relation holding between these two forms parallels that between may and might here: "There is, perhaps, a plausible argument that ought and should are epistemically tentative forms of MUST, since there clearly is a semantic parallelism ..." (PALMER 1974 : 138).

Secondly, it will be noticed that no oblique forms are used in Afrikaans to signal remote epistemic modality. The "marginal" modal auxiliary behoort te functions here as should does, expressing less confidence than

*aan die rand.*

moet, and we shall see that the remoteness signalled here is paralleled in the case of deontic behoort te and should. The combination of modality markers in 21(d) (kan miskien) represents a frequent employment in Afrikaans to signal remoter epistemic possibility than is signalled by the non-oblique auxiliary alone.<sup>6)</sup> It will be argued that the oblique forms found in combination with ge- ... het in epistemic contexts do not reflect remote modality and so the non-employment of oblique forms in Afrikaans to signal remote epistemic modality will be seen to be a salient difference between the two languages.

#### 4.3.2.2 Remote non-epistemic modality

Auxiliaries expressing remote non-epistemic modality are generally found in such environments as wishes (cf. 22(a) and (b)) and "unreal" conditionals i.e. conditionals which suggest that "the events envisaged are unlikely" (PALMER 1974 : 140 - cf. 22(c) and (d)).

- 22 (a) I wish I could sing so beautifully.  
 (b) Ek wens jy kon vir Charlie sien.  
 (c) If I <sup>Apodosis</sup> could sing so beautifully, I could earn a million.  
 (d) As jy vir Charlie kon sien, sou jy vir hom jou verhaal kon vertel.

There would appear to be a basic difference in the nature of the remoteness expressed in wishes and in the <sup>voorwaardelike sin</sup> protasis of unreal conditionals on the one hand, and in the <sup>gevolglike klous van voorwaardelike sin</sup> apodosis of unreal conditionals on the other. A formal correlate of this semantic difference appears in English where a paraphrase with the modality marker be able to is used. Thus could in 22(a) and in the "if"-clause of 22(c) is paraphraseable by the subjunctive form were able to, while the paraphrase in the main clause of 22(c) is the conditional form would be able to. In the latter case the remoteness resides in the concomitance of a condition or set of conditions <sup>begietiding/samenhang</sup> which are seen as unlikely to be fulfilled, while in the former the remoteness does not derive from any dependency on conditions. As will

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6) Intonation features are probably more important as markers of remoteness here than are combinations of modality markers, but a consideration of this question is beyond the limits of the present study.

be seen, one of the functions of would and sou is simply to mark this type of conditionality, and it is argued that what might be called remote conditionality is always signalled where modal auxiliaries are paraphraseable by constructions containing these auxiliaries. This applies whether the conditions are actually expressed, as in 22(c) and (d), or covert,<sup>or understood</sup> as in syntactically independent structures such as

22 (e) I could earn a million.

(f) Jy sou vir hom jou verhaal kon vertel.

The inherent conditionality of such structures may be said to imply the existence of a "suppressed condition" (cf. e.g. LEECH 1971 : 113).

We identify then two main types of remoteness: 'that which involves conditionality and that which does not. The former will be represented in our semantic structures by the features  $\begin{bmatrix} +rem \\ +cond \end{bmatrix}$  and the latter by the features  $\begin{bmatrix} +rem \\ -cond \end{bmatrix}$  on the modal abstract predicate. As will be seen, one salient aspect of the feature [+rem] is the fact that it is necessarily present in all expressions containing modality markers which have contrafactive presuppositions.

#### 4.3.2.2(a) "Double remoteness" and contrafactivity

In sentences 22(a)-(f) above it is the modality and not the process which carries the feature of remoteness: although modalised by a "remote" modality marker, the process itself is still to some extent time-bound as it must be non-past, as shown in 23(a) and (b):

23 (a) If he could do it  $\left\{ \begin{array}{l} *yesterday \\ tomorrow \end{array} \right\}$  he would do a good job.

(b) As hy dit  $\left\{ \begin{array}{l} *gister \\ mōre \end{array} \right\}$  kon doen, sou hy 'n sukses daarvan maak.

In such cases then, the process will not be characterised as containing the feature [+rem] but carries the deep-tense feature [-past], contrasting with the [+past] process that accompanies the oblique modal auxiliaries when they mark past modality.

In some circumstances however, the process itself is remote and atemporal,

as in e.g. 23(c) and (d):

23 (c) If he could have done it  $\left\{ \begin{array}{l} \text{yesterday} \\ \text{tomorrow} \end{array} \right\}$  he would have done a good job.

(d) As hy dit  $\left\{ \begin{array}{l} \text{gister} \\ \text{môre} \end{array} \right\}$  kon gedoen het, sou hy 'n sukses daarvan gemaak het.

The compatibility of both past and non-past specifiers with the have/ge... het forms indicates that these forms do not here appear in their function as markers of pastness but rather in their alternative function as remoteness markers. When have/ge... het forms are combined with oblique modals and the sense is non-epistemic, a kind of "double remoteness" and not past time is expressed, cf.: "The meaning Contrary-to-fact is signalled by could/might/should/would + have + participle in an associated construction" which is "void of any time-signalling content, and is compatible with contextual or situational clues specifying future, present, or past chronology" (TWADDELL 1968 : 7); and "Ondanks die feit dat dit [oblique modal auxiliary + ge... het form] meestal slaan op die verlede, is dit verkeerd om dit as 'n tydskategorie te bestempel, want dit het met modaliteit te doen" (DE VILLIERS 1968 : 92).

In English the oblique ("past") form of the verb alone can signal remoteness, as in

23 (e) If he did it tomorrow he would do a good job.

Where however a modality marker or other construction requiring a following infinitive is required (cf. 23(c) and (f)), this finite form is impossible and so auxiliary have + participle is introduced, here to signal remoteness rather than pastness.

23 (f) If he were able to have done it tomorrow, he would have done a good job.

An alternative to 23(f) is

23 (g) If he had been able to do it tomorrow, he would have done a good job

where had, the oblique form of have - which, as mentioned, already acts here as a marker of remoteness - expresses "double remoteness" in much the same way as it can express "double pastness" in its role as marker of the so-called "pluperfect tense". Auxiliary had may also be used to signal double remoteness even where the relevant utterance is not "modal" in the strict sense (i.e. does not express some form of "necessity" or "possibility" and so does not contain a modal predicate NEC/POSS in deep structure), as in e.g.

23 (h) If he had done it tomorrow he would have done a good job.

In Afrikaans remoteness may be signalled in "non-modal" utterances by sou as a remoteness marker rather than a marker of modality (i.e. of "necessity" - cf. §5.3.2.3(d)), as in

23 (i) As hy dit mōre sou doen, sou hy 'n sukses daarvan maak (cf. 23(e)).

In some circumstances, the ge-... het form can be said to mark a double remoteness when it does not signal pastness, as in

23 (j) As hy dit mōre gedoen het, sou hy 'n sukses daarvan gemaak het.

The double remoteness signalled by the various forms in 23(c), (d), (f), (g), (h) and (j) is clearly associated with the contrafactivity of the relevant predications in these sentences, i.e. with the presupposition that what is predicated will not, does not or did not take place.

It may be argued that this double remoteness is a sufficient condition for contrafactivity and so in both English and Afrikaans the combination of an oblique modal (non-epistemic) with have/ge-... het normally signals contrafactive meaning.

When the modality is epistemic no double remoteness is signalled by this construction. It will be argued that in a sentence such as

23 (k) Hy kon dit gister gedoen het

if kon is epistemic it does not signal remote modality and the ge-... het form signals pastness and not remoteness (cf. §4.3.4.1(c)). Thus 23(l), in which the ge-... het form obviously signals remoteness, can only be interpreted non-epistemically i.e. as expressing unfulfilled (contrafactive)

extrinsic Agentive possibility with suppressed condition:

23 (1) Hy kon dit mōre gedoen het.

It appears then that kon can signal remote conditionality when the accompanying process is also remote. The position is very similar with moes (cf. §5.3.2.1(b)). In English, oblique forms of the modal auxiliaries may be associated with remote epistemicity but in such cases the process can once again only be past, not remote, and so 23(m) could also only be interpreted non-epistemically, i.e. as being paraphrasable by sentences containing e.g. would have been able to instead of it is just possible that (cf. §4.3.3.1(d)):

23 (m) He could have done it tomorrow.

Table 2 (p. 96) summarises the main types of meaning in respect of deep tense, remoteness and conditionality (what might here be called "grammatical" meaning) relating to the use of the oblique modal auxiliaries could and kon. The range of "grammatical" meanings of the other oblique modal auxiliaries in both languages is similar to that given here and so this table is of general relevance.

We turn now to a more detailed study of the meanings of could, might and kon.

Oblique modal auxiliary	Epistemic		Paraphrase	Non-epistemic		Paraphrase
	modality	process		modality	process	
e.g. <u>English</u> : He <u>could</u> do that	[pres +rem]	[-past]	It is (just) possible that he <u>does</u> that	[+past]	[+past]	He was <u>able to do</u> that
If he <u>could</u> do that ...	-	-	-	[+rem +cond]	[-past]	He <u>would be able to do</u> that
<u>Afrikaans</u> : Hy <u>kon</u> dit doen	-	-	-	[+rem -cond]	[-past]	If he <u>were able to do</u> that
As hy dit <u>kon</u> doen ...	-	-	-	[+past]	[+past]	Hy was in staat om dit <u>te</u> doen
<u>Oblique modal auxiliary + have/</u> <u>ge-... het</u>				[+rem -cond]	[-past]	As hy in staat was om dit <u>te</u> doen
e.g. <u>English</u> : He <u>could have</u> done that	[pres +rem]	[+past]	It is (just) possible that he <u>did</u> that	[+rem +cond]	[+rem]	He <u>would have been able to do</u> that
If he <u>could have</u> done that ...	-	-	-	[+rem -cond]	[+rem]	If he <u>had been able to do</u> that
<u>Afrikaans</u> : Hy <u>kon</u> dit <u>gedoen</u> het	[pres]	[+past]	Dit is moontlik dat hy dit <u>ge-</u> <u>doen</u> het	[+rem +cond]	[+rem]	Hy <u>sou in staat ge-</u> <u>wees het om dit te</u> <u>doen</u>
As hy dit <u>kon ge-</u> <u>doen</u> het	-	-	-	[+rem -cond]	[+rem]	As hy in staat <u>sou</u> <u>gewees het om dit</u> <u>te</u> doen

TABLE 2

A SAMPLE OF TYPES OF ("GRAMMATICAL") MEANING RELATING TO THE USE OF  
OBLIQUE MODAL AUXILIARIES

### 4.3.3 Oblique forms: English

#### 4.3.3.1 COULD

As mentioned above, the oblique forms of the modal auxiliaries can signal past modality or one of two types of remote modality, i.e. conditional and non-conditional. We discuss the meanings of could under the following main headings:

- (a) past non-epistemic possibility;
- (b) remote non-epistemic possibility; and
- (c) remote epistemic possibility.

#### 4.3.3.1(a) Past non-epistemic possibility

When the modality is real past (i.e. it is not marked for remoteness) the process to which it applies is also deep-tense past.

Fig. 7(a) represents the semantic structure of the various types of past non-epistemic possibility could, x and y being variables for the arguments which, as discussed earlier, identify each particular type of non-epistemic possibility.

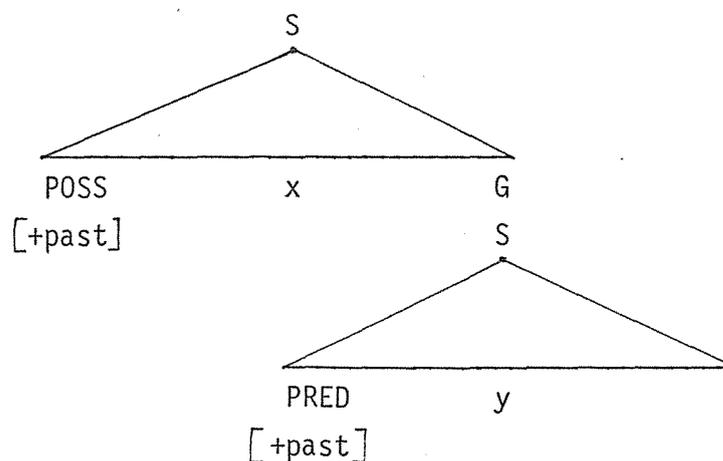


fig. 7(a)

The feature [-simult], which characterises the semantic representations of all the non-epistemic modal auxiliaries discussed so far, is absent here as the question of simultaneity with utterance time is redundant in

the context of past modality (cf. §4.1.2).

(i) Past deontic possibility

This type of modality is exemplified in

24 (a) Fred could visit Jemima when he was still friendly with her father.

Outside indirect speech and other environments where the "sequence-of-tense rule" operates (cf. e.g. 19(a) in §4.3) this sense of could is not frequent, the unambiguous modality markers was allowed/permitted to being preferred. Where the deontic source is specified, allowed/permitted mark this modality.

Despite its deontic meaning this could cannot, because it signals past time, be used performatively. Thus

24 (b) You could visit Jemima yesterday cannot count as a permission-giving utterance.

The semantic representation of past deontic could is as in fig. 7(a), with the following modifications:  $x = A_i$ ; and  $y = A_j$ .

(ii) Past Agentive possibility

The intrinsic and extrinsic variants are mentioned together here, as some of the formal distinctions between the two are neutralised in a past environment: there is for example no difference in the tense selection on the lower predication as it must be past in both types of modality (cf. 25(a) and (b)).

25 (a) Zukov could read a thousand words a minute when he was busy with his doctorate.

(b) The doctor could see you yesterday.

Alternative modality markers here are was able to and made it possible for ... to for both senses, enabled ... to for the intrinsic sense alone and was possible for ... to for the extrinsic sense alone. It should be noted that when it does not apply to sensation verbs

*perception verbs*

(e.g. hear, see etc.) could cannot be used to refer to a single past action, as in Palmer's (1977 : 5) examples:

25 (c) I ran fast and  $\left\{ \begin{array}{l} \text{was able to} \\ \text{*could} \end{array} \right\}$  catch the bus.

It may be argued that the auxiliary is inherently more "modal" than the other marker and is thus avoided where a past action is reported to have actually taken place. As Palmer (1977 : 5) notes, the negative form of the auxiliary is quite in order here:

25 (d) I ran fast but  $\left\{ \begin{array}{l} \text{wasn't able to} \\ \text{couldn't} \end{array} \right\}$  catch the bus.

The semantic representation of past Agentive could is as in fig. 7(a), modified as follows:  $x = \begin{array}{l} I \\ [+int] \end{array}$  or  $\begin{array}{l} I \\ [-int] \end{array}$ ; and  $y = A$ .

### (iii) Past intrinsic non-Agentive possibility

This type of modality is exemplified by

26 (a) In the old days diplomatic do's could be boring.

Alternative modality markers are was possible for ... to and made it possible for ... to.

The semantic representation for this could is as in fig. 7(a), modified as follows:  $x = \begin{array}{l} I \\ [+int] \end{array}$ ; and  $y = \left\{ \begin{array}{l} I \\ 0 \end{array} \right\}$

As noted above, could, like the other modal auxiliaries, cannot express a past epistemic modality (cf. §4.3.1).

#### 4.3.3.1(b) Remote non-epistemic possibility

Fig. 7(b) represents the composite (cf. fig. 7(a), p. 97) semantic representation of remote non-epistemic could.

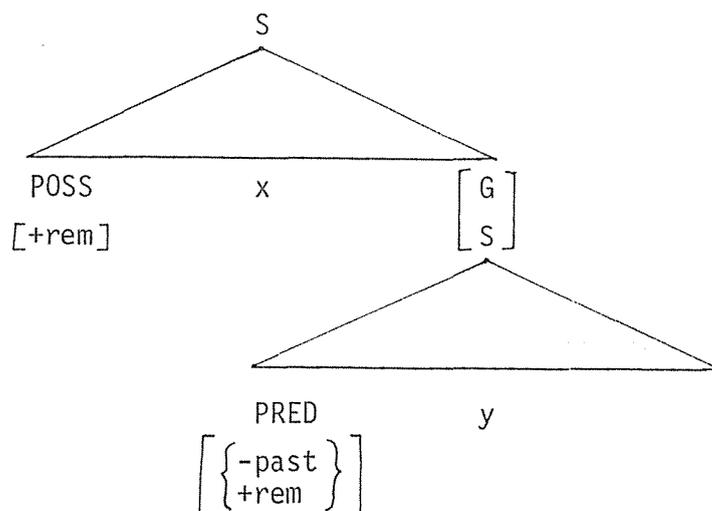


fig. 7(b)

(i) Remote deontic possibility

Both non-conditional (cf. 27(a)) and conditional (cf. 27(b)) remoteness can be expressed here:

27 (a) If Fred could visit Jemima he'd be very happy.

(b) Fred could visit Jemima.

Alternative modality markers here are were allowed/permitted to<sup>8)</sup> and would be allowed/permitted to respectively. If the deontic source were specified in surface structure, the forms used would be were to allow/allowed ... to and would allow ... to respectively, as in:

27 (c) If his lordship were to allow/allowed Fred to visit Jemima, he'd be very happy.

---

8) To a considerable extent "subjunctive" forms such as these mark a fairly formal, "educated" style, ordinary past forms such as was allowed/permitted to probably being more frequent in colloquial language. Forms containing "subjunctive" should (cf. § 5.3.1.2(c)) may also be used in "unreal" protases, usually in fairly formal styles. This should can appear clause-initially, as in

(i) Should Fred be allowed to visit Jemima, he'd be very happy.

27 (d) his lordship would allow Fred to visit Jemima.

It should be noted that in the second option in 27(c) the remoteness is expressed once again by what might also be called an "oblique" form, this time a form of the full verb which here acts as a modality marker. It should also be noted that conditional could, would be allowed to and would allow ... to are essentially synonymous and so would is here merely a marker of remote conditionality, being triggered by the features  $\left[ \begin{array}{l} +rem \\ +cond \end{array} \right]$  on the modal abstract predicate. This is not however true for 27(e), where would is a separate modality marker, paraphraseable by were willing to:

27 (e) If his lordship would allow Fred to visit Jemima, he'd be very happy.

Thus, in the context of this "if"-clause, would allow is not semantically related to could.

The very common "tentative" use of could in requests, e.g.

27 (f) Could I visit Jemima?

may be said to derive from the conditional remote type of deontic possibility, the connotations of remoteness and of suppressed conditions, such as ... if I were bold enough to ask you for permission (cf. LEECH 1971 : 119), being essential here to the successful use of this modal auxiliary as a politeness marker.

In reply to such a request, on the other hand, the remote conditionality is more properly part of the meaning. Thus in

27 (g) You could visit Jemima

the permission is conditional and the addressee would here expect conditions to follow.

The semantic representation of remote deontic could is as given in fig. 7(b) but with the following modifications:  $x = A_i$  ; and  $y = A_j$ .

(ii) Remote Agentive possibility

As shown by 22(c) above (repeated here), both conditional and non-conditional types are possible:

22 (c) If I could sing so beautifully, I could earn a million.

Depending as usual on whether the modality source is unspecified and deleted or specified and present as the subject of the clause containing the modality marker in surface structure, synonymous markers for this non-conditional could are were able to, were possible for ... to (despite the fact that this could is "intrinsic": the intrinsic v. extrinsic distinction appears to be fully neutralised in remote environments), were to enable ... to, and were to make it possible for ... to, while synonymous markers for this conditional could are would be able to, would be possible for ... to, would enable ... to and would make it possible for ... to.

In 22(c) the "if"-clause may be regarded as the modality source for the conditional could in the main clause, but because this source is realised in a separate clause, could is in order and a causative-transitive modality marker is not used. This contrasts with

28 (a) My being able to sing so beautifully would make it possible for me to earn a million

where the modality source is not only specified but present as the surface subject of the clause containing the modality marker.

The semantic representation for remote Agentive could is as given in fig. 7(b), modified as follows:  $x = \begin{matrix} I & \text{or} & I \\ [+int] & & [-int] \end{matrix}$  ;

and  $y = A$ .

(iii) Remote intrinsic non-Agentive possibility

This type of modality is exemplified by 29(a) (conditional, Instrumental) and 29(b) (non-conditional, Objective):

29 (a) Lightning could kill you.

(b) If only those concerts could be shorter, they'd be very enjoyable.

Synonymous modality markers are would be possible for ... to, would make it possible for ... to and were possible for ... to, were to make it possible for ... to for the conditional and non-conditional types respectively.

(iv) Remote non-epistemic possibility with remote process

As noted above (cf. §4.3.2.2(a)), when non-epistemic could combines with auxiliary have the process as well as the modality is remote, as in

- 30 (a) If Fred could have visited Jemima he would have been very happy.  
 (b) Fred could have visited Jemima.  
 (c) If I could have sung so beautifully I could have earned a million.  
 (d) The lightning could have killed you.  
 (e) If only those concerts could have been shorter, they would have been very enjoyable.

Typical alternative modality markers include had been allowed to (cf. 30(a)), would have been allowed to (cf. 30(b)), had been able to and would have been able to (cf. 30(c)), would have been possible for ... to (cf. 30(d)) and had been possible for ... to (cf. 30(e)).

The process which accompanies remote non-epistemic could then, is either non-past or remote, as shown in fig. 7(b), which is a composite semantic representation of the variants of this could. Where the process is also remote the surface clause is contrafactive, as exemplified by 30(a)-(e) above. It will be noted that in fig. 7(b) the feature [-simult] is absent: in remote contexts the question of simultaneity between utterance time and process time does not arise as the process itself is, strictly speaking, atemporal.

4.3.3.1(c) Remote epistemic possibility

Both could and could have signal remote epistemic possibility, the have construction being used, as in the case of non-remote epistemic modality, where the process is past:

31 (a) The salesman could still be in Pretoria.

(b) The salesman could still have been in Pretoria yesterday.

The semantic representation of this modality is given in fig. 7(c):

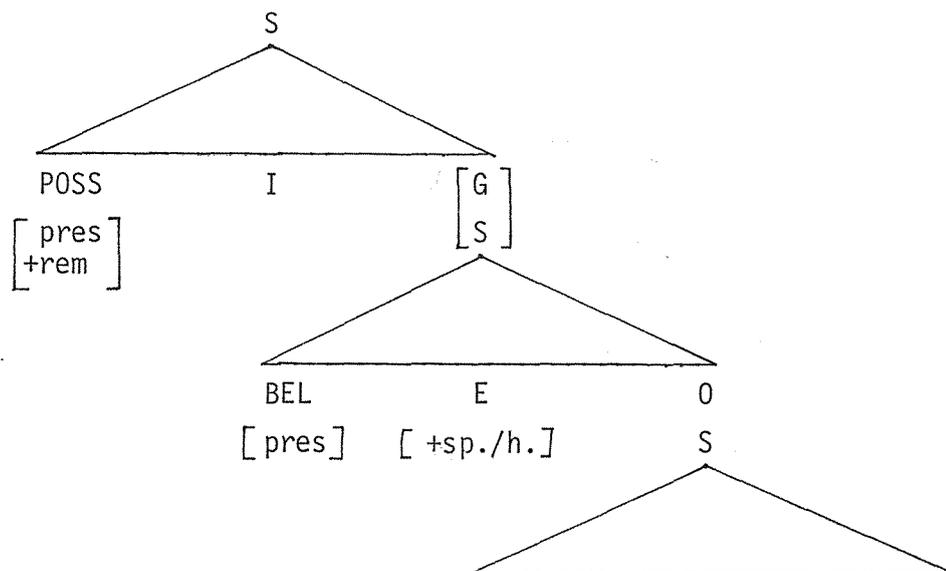


fig. 7(c)

Alternative modality markers are the same as those mentioned for epistemic may above (cf. §4.2.1.2(b)), but the remoteness of could has the effect of making the expression of possibility more tentative, and so paraphrases here could be it is just possible that, or it is possible, though unlikely, that ... rather than simply it is possible that, etc. (cf. LEECH 1971 : 121).

Just as they do not signal past modality, epistemic modal auxiliaries are not normally associated with remote conditionality. If 31(b), for example, is interpreted epistemically, i.e. as equivalent to

31 (c) It is (just) possible that the salesman was still in Pretoria yesterday

there is no suppressed unreal condition, and also no presupposition of contrafactivity. If, however, it is interpreted non-epistemically,

i.e. as

31 (d) It would have been possible for the salesman still to have been in Pretoria yesterday

it would normally be accompanied by a condition (e.g. ... if you had wanted to see him then) and the process would be interpreted contra-factively.

#### 4.3.3.2 MIGHT

Although may has both deontic and epistemic senses, might is practically never used in the first sense. The only marginal exception here is the "tentative" use in first-person requests, e.g.

32 (a) Might I/we visit Jemima?

which derives from the remote conditional modality and is even more formal than could (cf. the discussion of 27(f) in §4.3.3.1(b)).

#### 4.3.3.2(a) Remote epistemic possibility

Might, then, practically <sup>ep.</sup> always signals this type of modality and as such is in every way synonymous with epistemic could. It tends therefore to be used in environments where the speaker wishes to avoid the ambiguity of the latter and to stress epistemicity, as in 33(a) v. (b):

33 (a) The salesman might be in Pretoria on Saturday.

(b) The salesman could be in Pretoria on Saturday.

The semantic representation of might here is then identical to that given for could in fig. 7(d) and the same synonymous modality markers apply. Some writers (e.g. DIVER 1964) claim that might expresses a lower degree of probability than could, but this impression quite probably derives from the fact that the former is used almost exclusively to signal epistemic possibility i.e. "the possible existence of an actuality" rather than the stronger "actual existence of a possibility" (cf. § 4.2.1.1(d)).

#### 4.3.4 Oblique forms: Afrikaans

##### 4.3.4.1 KON

As in the case of the congruent English could, kon signals past and remote modality, but it will be seen that the semantics of the two forms are not wholly equivalent. We discuss the meanings of kon under the following main headings:

- (a) past non-epistemic possibility;
- (b) remote non-epistemic possibility; and
- (c) epistemic possibility.

##### 4.3.4.1(a) Past non-epistemic possibility

As in English, both modality and process are past here.

The composite semantic representation of past non-epistemic possibility kon is identical to that given for could above (cf. fig. 7(a), p. 97), reflecting the basic semantic equivalence of the two forms as markers of past time.

##### (i) Past deontic possibility

This is a comparatively rare sense, particularly in non-negative contexts, as in

34 (a) Gister kon Stoffel die Mercedes nog leen, maar nou laat sy pa dit nie meer toe nie.

Generally the other modality markers is toegelaat and het ... toegelaat (where the deontic source is the surface subject of the modality marker, as in the second clause of 34(a)) are preferred here.

The semantic representation is identical to that given for past deontic could (cf. fig. 7(a), p. 97, and § 4.3.3.1(a) for modifications).

(ii) Past Agentive possibility

"Intrinsic" and "extrinsic" versions of this modality are exemplified in 35(a) and (b) respectively:

- 35 (a) Toe hy 'n kind was kon hy fietsry.  
 (b) Verlede week kon hy nog saam met ons fietsry, maar nou is hy te besig.

Intrinsic could has no really synonymous modality markers but the extrinsic version is synonymous with was moontlik vir etc. (cf. § 4.2.2.1(b)).

Unlike the position with could, kon may be used to refer to a single past action, e.g.:

- 35 (c) Hy het agter die bus aan gehardloop en kon dit darem toe haal

and so a minor cross-linguistic contrast is exemplified here.

In terms of our representations this kon is identical to its English counterpart could (cf. fig. 7(a) and § 4.3.3.1(a)).

(iii) Past intrinsic non-Agentive possibility

This modality is seen in

- 36 (a) In die ou dae kon jukskei groot pret wees.  
 (b) In die ou dae kon die sterk winde ons ou sinkplate afwaai.

Synonymous modality markers are consistent with those mentioned for the non-past modality (cf. § 4.2.2.1(c)) except that was and het forms are of course applicable here.

The semantic representation here is as for the counterpart sense of could (cf. fig. 7(a) and § 4.3.3.1(a)).

4.3.4.1(b) Remote non-epistemic possibility

As mentioned earlier, in this type of modality both modality and process

are non-past.

Although the oblique forms of the modal auxiliaries are less frequently used in Afrikaans than in English (cf. §4.2.2), when they are used and do not signal pastness they signal remoteness as in English (for one probable exception here, cf. §4.3.4.1(c) below).

In Afrikaans the oblique forms kon, moes and wou normally only signal non-conditional remoteness, as in wishes and in the protasis of conditional sentences, because in apodoses and in syntactically independent constructions semantically equivalent to them, these forms practically always co-occur with sou, which in such circumstances can be regarded as a marker of the remote conditionality, as in 37(b), which differs significantly from the English original, 37(a).

37 (a) You couldn't stop me coming if I wanted. (L.F.: 196)

(b) Julle sou my tog nie kon keer as ek wou nie. (R.V. : 187)

The composite semantic representation of remote non-epistemic kon in fig. 8(a) is identical to that given for could in fig. 7(b) (p. 100) with the exception that kon must here always be specified as [-cond].

Thus while POSS [+rem] [-cond] may be realised as could or kon, POSS [+rem] [+cond] } sou/kon which may surface as would be able to or could in English, may be realised as sou ... kon but not as kon alone in Afrikaans.

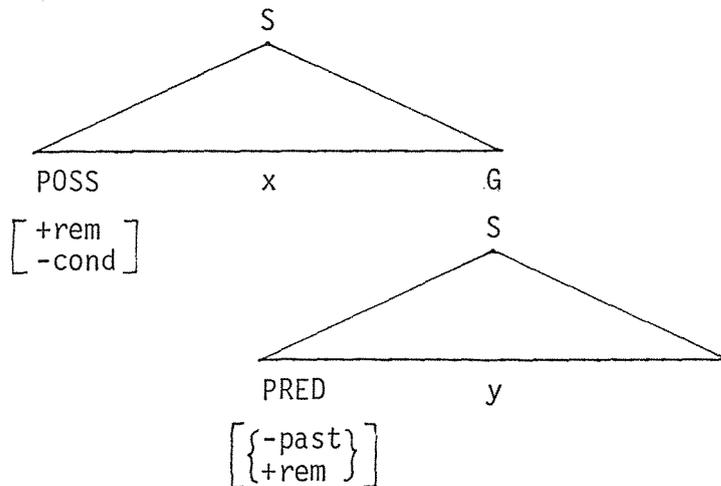


fig. 8(a)

(i) Remote deontic possibility

This sense of kon, as in one interpretation of

38 (a) As ek my lewe kon oorleef, sou ek dieselfde doen. (S.)

is fairly infrequent and although it is mentioned by De Villiers in the context of formal requests, as in

38 (b) Kon jy my asseblief sê waar dit is? (DE VILLIERS 1968 : 91)

where it is not accompanied by sou, it should be noted that not one example of this use of kon appears in Frekwensiebepaling ... despite the high frequency of questions in the S.A.B.C. corpus and the relatively formal registers characteristic of this corpus. It would appear then that the preference for kan over kon in all but the "frozen" styles is very strong, and so the stylistic contrast with English here (cf. 27(f) above) may be more marked than is generally imagined.

Modality markers equivalent to the sense of kon discussed here are exemplified in 38(c):

38 (c) As  $\left\{ \begin{array}{l} \text{die Heer my } \underline{\text{sou toelaat}} \\ \text{ek } \underline{\text{toegelaat sou word}} \\ \text{ek } \underline{\text{toegelaat was}} \\ \text{dit my } \underline{\text{veroorloof was}} \end{array} \right\}$  om my lewe te oorleef,  
sou ek dieselfde doen.

This example reveals that sou may function as a marker of non-conditional as well as conditional remoteness, i.e. it may derive from the features  $\left[ \begin{array}{l} +\text{rem} \\ -\text{cond} \end{array} \right]$  as well as  $\left[ \begin{array}{l} +\text{rem} \\ +\text{cond} \end{array} \right]$  on the underlying predicate. As a marker of the former type it parallels the English "subjunctive" should (cf. § 5.3.1.2(c)), but contrasts with would, which always derives from  $\left[ \begin{array}{l} +\text{rem} \\ +\text{cond} \end{array} \right]$  when it is merely a remoteness marker (cf. § 5.3.1.1(c)). Thus sou is used in the protasis of 38(c) where English translations would employ oblique ("imperfect") or "subjunctive" forms, e.g. allowed, were to allow, should (be) allow(ed).

As seen in 38(c), was, which like the oblique forms of the Afrikaans

modal auxiliaries is a relic imperfect form, can also be used in the expression of remote modality, but the normal past (ge-... het) forms of the non-auxiliaries in Afrikaans usually signal only pastness and are often not acceptable as expressions of remoteness:

- 38 (d) \*As die Heer my toegelaat het om my lewe te oorleef,  
sou ek dieselfde doen.

Given the normal correlation between the English "imperfect" forms and the Afrikaans ge-... het forms, a significant deviation from this pattern is thus revealed in "remote" protases.

The semantic representation of remote deontic kon is as for could (cf. fig. 7(b), p.100) with the same modifications (cf. §4.3.3.1(b)), except that POSS must be specified as [-cond].

(ii) Remote Agentive possibility

The intrinsic and extrinsic variants of this modality are exemplified in 39(a) and (b) respectively:

- 39 (a) Ek wens ek kon so pragtig teken.  
(b) As ek maar net huis toe kon gaan.

As noted above, there are no nearly synonymous modality markers for the former sense of kon, but in the case of the latter all the modality markers mentioned for "extrinsic" kan above (cf. §4.2.2.1(b)) apply in forms consistent with the remoteness: hence was moontlik vir, sou moontlik wees vir, etc.

Sentence 37(b) above exemplifies the use of this kon in an apodosis, where it may be said to mark only remoteness while sou marks the remote conditionality.

Once again, the semantic representation of this kon is as for could in fig. 7(b) with the modifications given in §4.3.3.1(b) and POSS being specified as [-cond].

(iii) Remote intrinsic non-Agentive possibility

This modality is represented in

- 40 (a) As ons motor so vinnig kon ry, sou ek baie bly wees.

Synonymous modality markers are as discussed for intrinsic non-Agentive kan (cf. §4.2.2.1(c)), but in forms consistent with the remoteness signalled.

Again, the difference between kon and its counterpart could here lies only in the added specification [-cond] in the semantic representation of the former.

(iv) Remote non-epistemic possibility with remote process

When non-epistemic kon combines with ge-... het forms the process as well as the modality is remote, as in e.g.

- 41 (a) As ek my lewe kon oorgeleef het, sou ek dieselfde gedoen het.  
 (b) As ek maar net huis toe kon gegaan het.  
 (c) As ons motor so vinnig kon gery het, sou ek baie bly gewees het.

Typical alternative modality markers include sou toegelaat het (cf. 41(a)) and sou vir ... moontlik gewees het (cf. 41(b) and (c)).

As in the case of could, the process accompanying remote non-epistemic kon is either non-past or remote and where the latter applies, as in 41(a)-(c) above, contrafactive meaning is expressed.

4.3.4.1(c) Epistemic possibility

In epistemic contexts kon cannot be characterised as expressing remoteness as there is no clear opposition of forms here. Thus kan may be used to express epistemic modality when the process is non-past while

kon cannot normally do so, cf. 15(e) v. 42(a):

15 (e) Die President kan nou in Pretoria wees.

42 (a) ??Die President kon nou in Pretoria wees.

On the other hand, kon + ge-... het is regularly used when the process is past, while kan + ge-... het is rarely found, cf. 15(g) v. 42(b):

15 (g) ?Die President kan gister in Pretoria gewees het.

42 (b) Die President kon gister in Pretoria gewees het.

It is quite probable that the kon in 42(b) is the result of a process of analogy, ge-... het always co-occurring with kon and never with kan in non-epistemic environments. There is then a nearly complementary distribution between kan and kon where the modality is non-past and hence a remote v. non-remote distinction is not justified here. Epistemic kon is thus associated with a present modality (as in the case of all epistemic modals, cf. § 4.2.1.2(b)) which is non-remote, and a past process, as shown in fig. 8(b), which should be contrasted with the representation of epistemic could in fig. 7(c) (p. 104) and also with that of epistemic kan and may in fig. 4(b) (p. 68).

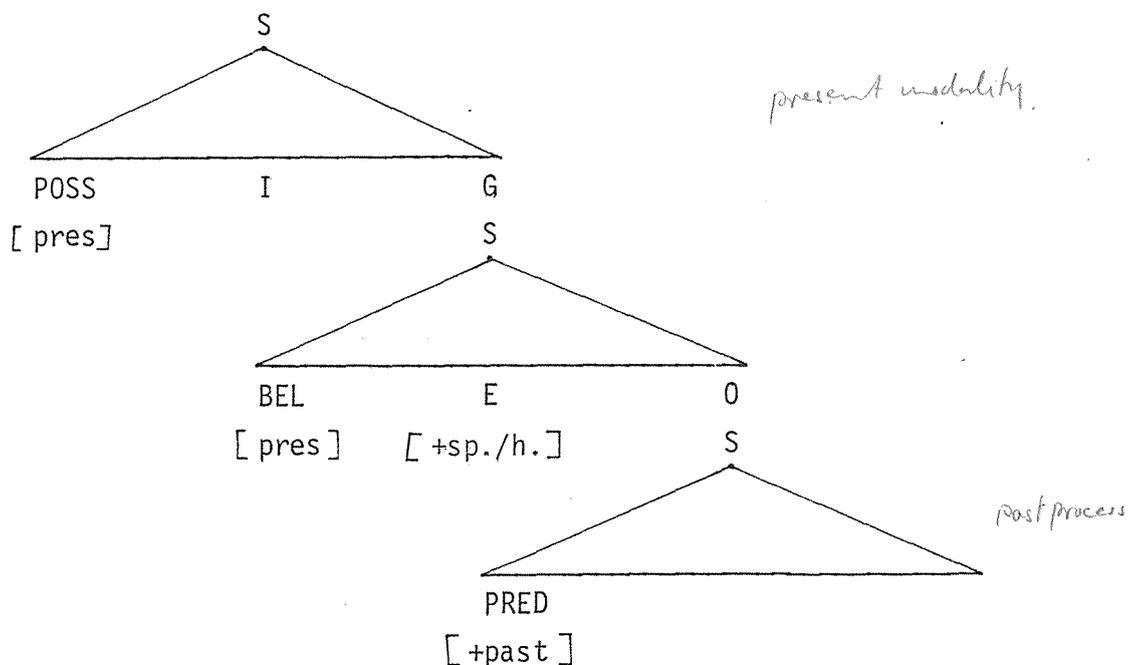


fig. 8(b)

Synonymous modality markers are as for kan above (cf. § 4.2.2.1(d)).

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SEMANTICS OF THE MODAL AUXILIARIES  
EXPRESSING "NECESSITY"

### 5.1 Introduction

We are here concerned with those modal auxiliaries which share as a common feature of their semantic representations the modal abstract predicate NEC. These modal auxiliaries are English must, will, shall, would and should, and Afrikaans moet, wil, sal, moes, wou and sou. Although the focus of attention is on these forms, certain other forms which differ to various extents in formal ways from the basic, "classical" set of modal auxiliaries but which are closely related to them semantically, e.g. ought to, want to, have to and behoort ... te will also be discussed where they are of relevance.

Just as "possibility"/"moontlikheid" was found to be the key concept in terms of which the meanings of all the modal auxiliaries considered in the previous chapter could be analysed, the notion "necessity"/"noodwendigheid" will be seen to be basic to an explication of the semantics of the modal auxiliaries to be considered here.

As seen above (cf. § 3.3.2) these two concepts are related to one another in terms of inverse opposition such that "necessary", for example, implies "not possible ... not". The language of everyday discourse does not however normally express alethic or "logical" possibility and necessity (cf. § 3.2) and so the abstract modal predicate NEC will not normally be interpreted as implying the factivity of the predication(s) to which it relates. Thus in epistemic contexts must for example does not imply absolute certainty: "The reason this must is still modal is the fact that it is the speaker's view that provides the weak point in the certainty of the predication" (EHRMAN 1966 : 68). If the speaker is absolutely certain he will not normally use a modal and so epistemic necessity is best regarded as expressing near certainty rather than absolute certainty on the part of the speaker. In non-epistemic contexts too, factivity is not implied where modality markers characterised by NEC are used. Thus the "necessary" conditions which apply to predications

which are modalised non-epistemically do not guarantee that these predications are or will be fulfilled: the use of the sentences

{ you must  
it is necessary for you to } see a doctor does not imply that the

addressee will indeed see a doctor, but gives him to understand that there are factors which point to the need for fulfilment of the predication.

## 5.2 Non-oblique forms

The non-oblique forms of the modal auxiliaries that express some kind of "necessity" are the cross-linguistically similar forms must, will and shall for English and moet, wil and sal for Afrikaans.

### 5.2.1 Non-oblique forms: English

#### 5.2.1.1 MUST

This modal auxiliary has the following senses: (a) deontic necessity; and (b) epistemic necessity.

##### 5.2.1.1(a) Deontic necessity

Must and some of the other "necessity" modal auxiliaries may be regarded as expressing deontic meaning even in situations where the modality source is not even "ultimately" Agentive (cf. § 4.2.1.1(a) fn. 2), as e.g.:

- 1 (a) Jim must practise for at least five hours a day if he is to jump higher than two metres.

The "necessity" here appears to be a purely physical necessity: a set of physical circumstances which may be represented as having the functional-semantic status of an Instrument. The sense of must here might then be characterised as extrinsic Agentive necessity, paralleling one of the senses of e.g. can (cf. § 4.2.1.1(b)). The term "deontic" is however retained because the use of must here connotes a degree of "deontic intent" (cf. § 4.2.1.1(a) fn. 2) on the part of the speaker which is not necessarily present when the nearly synonymous modality marker have (got)

to is used, e.g.

- 1 (b) Jim has to practise at least five hours a day if he is to jump higher than two metres.

Thus while 1(b) would normally be understood merely as a report, in 1(a) the speaker might be said to set himself up as a sort of secondary obligation source, cf. the relative strangeness of must in the context of 1(c):

- 1 (c) Jim  $\left\{ \begin{array}{l} ?\text{must} \\ \text{has to} \end{array} \right\}$  practise for at least five hours a day if he is to jump higher than two metres and I don't think he should.

These considerations take us some way into what is essentially the domain of pragmatics and it is, admittedly, very difficult to identify and make explicit the exact nature of the difference between must and have (got) to, as is noted by e.g. Larkin, who contrasts these forms in sentences such as Johnny  $\left\{ \begin{array}{l} \text{has to} \\ \text{must} \end{array} \right\}$  play in his own yard today, declaring that "the speaker seems to identify, in some way, with the source of the need that is being expressed by a must sentence" (1969 : 392).

Deontic must then, generally connotes the assumption that the speaker (the hearer in questions) "goes along with" the obligation expressed while have to is unmarked in this way; and as this notion of speaker/hearer identification or subscription is also relevant to the distinction between certain other modal auxiliaries and their nearly synonymous counterparts, e.g. should v. supposed to (also behoort v. veronderstel om te). We shall include in our semantic representations the marked feature [+sp./h. id.] ("+speaker/hearer identification") on the deontic source where relevant, whether this source is Agentive or Instrumental. Thus even though the source may be Instrumental, the modality may be characterised as deontic because of the "deontic intent" which may be attributed to the speaker/hearer in his role as a secondary source of obligation.

Once again, then (cf. also §4.2.1.2(a)), information of an essentially pragmatic nature may be seen to be made explicit, in at least a rudimentary and preliminary fashion, by our semantic representations. It should also be noted that the type of information referred to here is

of some pedagogical relevance in the context of the foreign-language learning situation.

Whether the deontic source here is Agentive or Instrumental, an Agent must still be present in deep structure as an argument of the lower predicate even though it may not appear in surface structure, as in

1 (d) The eggplant must go to John's house (cf. 3(b) of §3.3.2.1)

where the obligation is obviously imposed not on the eggplant but on some unspecified Agent.

The Agentive and Instrumental types of this modality take different sets of nearly synonymous modality markers. Thus in the Agentive case typical markers include have (got) to, be obliged/required to and be necessary that/for ... to where the modality source does not appear as surface subject, and want to and require to when it does, cf. 1(e) and (f):

1 (e) Jack must take Jill home.

(f) The warden { wants  
requires } Jack to take Jill home.

The marker require to is rather formal and does not occur frequently.

When the modality source is Agentive (cf. also Larkin's examples given above) have (got) to differs from must in that it is normally used only when the source of the obligation is not the speaker. Thus while 1(e) can be understood either as having the illocutionary force of a command or of a report, 1(g) can usually only be understood as a report:

1 (g) Jack has (got) to take Jill home.

Have (got) to is also a typical marker of the Instrumental variant of this type of modality, as are be obliged/required to and be necessary that/for ... to, but here, as noted above, the speaker does not necessarily represent a secondary deontic source, and so the modality here shades off into extrinsic Agentive necessity. Need to is also possible here and where the modality source appears as the surface subject oblige, make ... necessary that/for ... to and necessitate may all appear in preference

to require:

1 (h) The extreme difficulty involved in jumping higher than two metres

$$\left. \begin{array}{l} \text{oblige} \\ \text{makes it necessary for} \\ \text{??requires} \\ \text{*wants} \end{array} \right\} \text{Jim to practise for at least five}$$

hours a day.

(i) The extreme difficulty involved in jumping higher than two metres

$$\left\{ \begin{array}{l} \text{necessitates that} \\ \text{makes it necessary that} \end{array} \right\} \text{Jim practises for at least five hours}$$

a day.

With both types of deontic must, while the modality expressed is itself present, the process can be present or future, although the Agentive type of must is usually used with future processes only. This relates to its use in obligation-creating utterances (i.e. speaker as deontic source) rather than obligation-reporting utterances. Where the existence of the obligation is contemporaneous with the utterance the obligation has already been called into being and so the relevant utterance is most likely to be a report rather than a command: have (got) to is therefore preferred here:

1 (j) Jack  $\left\{ \begin{array}{l} \text{?must} \\ \text{has (got) to} \end{array} \right\}$  take Jill home every day.

As must, unlike have to, cannot appear where the modality is future and cannot co-occur with other modal auxiliaries, this difference is neutralised in utterances such as:

1 (k) Jack will have to take Jill home.

In keeping with the non-epistemic senses of the other modal auxiliaries this sense of must is also incompatible with simultaneous deep aspect as attested by the fact that *kyh p. 121*

1 (l) ! Jack must be taking Jill home

is only open to an epistemic interpretation.



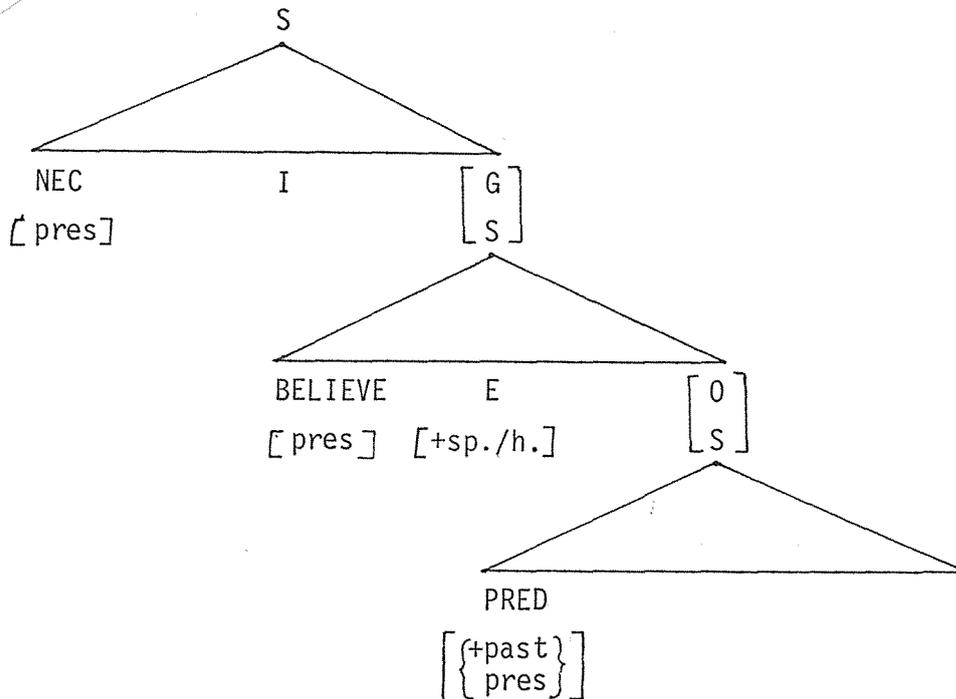
Epistemic MUST

fig. 9(b)

When the modality source appears as the surface subject of the modalised sentence, causative-transitive NEC surfaces as make (it) necessary (for), lead or cause, and so the modality markers here would be make it necessary for/lead/cause (me) to believe that .... The construction have (got) to does not normally mark epistemic necessity (cf. 2(c)).

- 2 (a) The President must be in Pretoria.  
 (b) The fact that the sentries are in the boxes leads me to believe that the President is in Pretoria.  
 (c) !The President has (got) to be in Pretoria.

As in the case of the epistemic senses of other modal auxiliaries the modality is present and, as mentioned above (cf. 1(1)), simultaneous deep aspect is possible here. It should be noted however that although must, like the other epistemic modals discussed so far, can take a past process (marked by have as in 2(d)), it is not normally associated with a future process: "One can distinguish ... two types of probability ... There is the likelihood of expectation about the future, verifiable in the future; and the likelihood of hypothesis or conjecture about something in existence at present, and verifiable at present ... the two modals should and must differ along these lines: should [and will, which is subsequently identified as "a stronger form of should"] is

used in the case of a likelihood based on future expectation, must of a likelihood based on present conjecture" (LAKOFF 1972 : 234). Thus when must appears as a verb in the simple infinitive form in contexts where the process is obviously future, the expression is usually interpreted non-epistemically (cf. 2(e)).

2 (d) The President must have travelled to Pretoria already.

(e) The President must travel to Pretoria next week.

With be + ing forms in the context of future specifiers must is interpreted as epistemic, e.g.

2 (f) The President must be travelling to Pretoria next week.

It may be argued however (cf. e.g. HUDDLESTON 1969 : 787) that in such cases the be + ing form involves two tense selections, one associated with be and one with travel, as is revealed more clearly in

2 (g) The President must now be travelling to Pretoria next week

where must modalises the deep-tense present predication with be in the first instance: the event may be future here but it is "anticipated by virtue of present plan" (LEECH 1971 : 57), and so the speaker may here be said to infer the existence of a present arrangement. The alternative features [+past] or [pres] (thus excluding [fut]) on the predicate immediately embedded to the BELIEVE predicate in the semantic representation of epistemic must are then generally justified if cognisance is taken of the way e.g. 2(f) and (g) are interpreted.

#### 5.2.1.2 WILL

As in the case of the other modal auxiliaries, the meanings of will can be analysed in terms of the basic distinction between epistemic and non-epistemic modality: in all its senses, including the so-called "futurity" sense, this auxiliary too is inherently modal, i.e. it always represents some qualification of the factuality of the proposition expressed or of the conditions on the process referred to (cf. § 3.3.2).

Various writers distinguish between "modal" and "futurity" meanings of will, but the criteria advanced as characteristic of "futurity" will,

e.g. semantic constancy under passivisation (Pete will meet Mary = Mary will be met by Pete only in the non-volitional "future" sense) and the non-occurrence of "future" will in "if"-clauses (if he'll come tomorrow ... has only a "volitional" interpretation), although distinguishing this postulated "future" sense from volitional will (cf. e.g. PALMER 1974 : 105-6) do not set it apart from the epistemic sense.

At the more specifically semantic level the status of present and past predications differs from that of future predications in that the latter can never express absolute certainty and thus always involves modal colouring: "We cannot be as certain of future happenings as we are of events past and present, and for this reason, even the most confident prognostication must indicate something of the speaker's attitude and so be tinged with modality. Will and shall are no exception. The word which most usefully characterises the future meaning of will and shall is PREDICTION - something involving the speaker's judgement" (LEECH 1971 : 52).

Thus Leech, while acknowledging that all senses of will must be modal, nevertheless distinguishes a specifically "future" sense for this auxiliary. We have seen, however, that - with certain qualifications in the case of must - the other modal auxiliaries in their epistemic senses express a present ("speaker-now") modality and may express a past, present or future process, and there is every reason to consider will as a parallel case, cf. 3(a)-(f):

- 3 (a) The President may be in Pretoria  $\left\{ \begin{array}{l} \text{tomorrow} \\ \text{now} \end{array} \right\}$   
 (b) The President will be in Pretoria  $\left\{ \begin{array}{l} \text{tomorrow} \\ \text{now} \end{array} \right\}$   
 (c) The President may have been in Pretoria yesterday.  
 (d) The President will have been in Pretoria yesterday.  
 (e) Now the President may go to Pretoria tomorrow.  
 (f) Now the President will go to Pretoria tomorrow.

Given the acceptability of 3(f), the incompatible deep-tense specifiers now and tomorrow must be associated with different predicates in semantic structure. Thus the modality here, as in 3(e), is deep-tense present and the process is deep-tense future. The speaker in both 3(e) and (f) then, may be said to express present belief concerning a future event or

state of affairs and thus may and will function in parallel fashion here, the one salient difference being the degree of probability expressed.

There are then no grounds for recognising a separate "future" meaning for will any more than for may: it is no doubt because will is the only modal auxiliary that both expresses high probability and may take a future process that it is often regarded as having this separate meaning.

Because of the high frequency of occurrence of epistemic will and the fact that some of the other senses may be said to derive from it, we will discuss the epistemic sense first.

#### 5.2.1.2(a) Epistemic necessity

When expressing epistemic necessity, will has essentially the same meaning as epistemic must except that - as Lakoff notes for should (cf. § 5.2.1.1(b)) - it too relates normally to a likelihood based on future expectation rather than on present conjecture and so is usually associated with a future process. *vermoeden/veronderstellen*

Where the process is not future and either must or will can be used, the latter is epistemically stronger: all the modal auxiliaries in their epistemic senses, and various other modality markers too, can be arranged on a scale of likelihood from remote possibility to near certainty, as exemplified in 4(a):

4 (a) The President  $\left. \begin{array}{l} \text{might/could/may} \\ \text{should/ought to} \\ \text{is bound to} \\ \text{must} \\ \text{will} \end{array} \right\}$  be in Pretoria at the moment.

Where the process is future, as in 4(b), must is not commonly found, but be going to can be used, so that the upper end of the scale of likelihood here is as follows:

4 (b) The President  $\left\{ \begin{array}{l} \text{is bound to} \\ \text{will} \\ \text{is going to} \end{array} \right\}$  go to Pretoria tomorrow.

Thus be bound to might be used as a slightly weaker alternative modality marker for epistemic must when the process is future. Be going to only

has modal colouring in so far as it refers to a future event or state of affairs, but this event or state of affairs is represented by the speaker as a certainty, all circumstances which give rise to fulfilment being present, cf. the difference between 4(c) and 4(d):

4 (c) They'll build a new swimming pool (one day).

(d) They're going to build a new swimming pool.

As in the case of must the meaning of epistemic will, and also of the other modality markers in 4(b), can be analysed in terms of a modality source which makes it necessary for the speaker to believe that the relevant proposition is true (cf. 2(b) above).

The semantic representation for epistemic will is given in fig. 10(a) (cf. fig. 9(b), p. 121 for epistemic must).

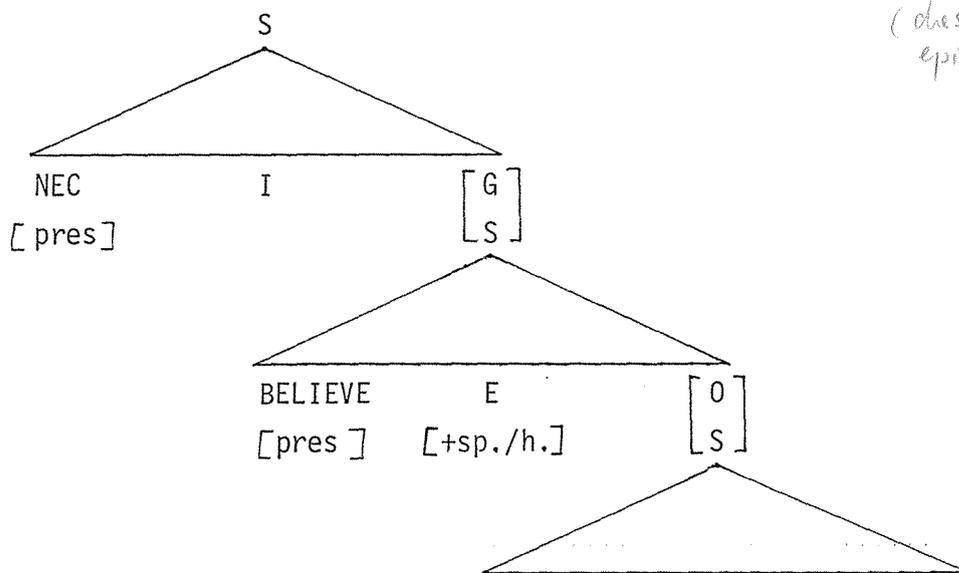


fig. 10(a)

As is seen here, no deep-tense or aspect restrictions apply to the predicate immediately embedded to the BELIEVE predicate in deep structure.

5.2.1.2(b) Deontic necessity

This somewhat restricted sense of will derives very clearly from the epistemic sense. In both second- and third-person uses the speaker may be said to predicate a future action to the subject, but it is not the subject itself but rather the speaker or some other Agent which is felt to be the source of the near certainty that the action will be fulfilled. The sense of will here is then that of a deontic modal, but with epistemic undertones.

Just as will was found to be epistemically "stronger" than must, it is also stronger in the deontic sense. The greater forcefulness of deontic will has a further dimension in that practically whenever it is used the source of the obligation is understood to be the speaker. Thus in this context will, where the Agentive modality source is [+sp.], represents the third step in a gradation from have to (A = [-sp./h.]) through must (A = [±sp./h.], i.e. unmarked in this respect), cf. 5(a):

5 (a) You  $\left\{ \begin{array}{l} \text{have to} \\ \text{must} \\ \underline{\text{will}} \end{array} \right\}$  take Jill home.

It will be noted that will is specified only as [+sp.] and not as [+sp./h.]. This is because deontic will - which, as mentioned, exemplifies a rather restricted sense of the modal - is never found in questions, cf.

5 (b)  $\left\{ \begin{array}{l} \text{Do I have to} \\ \text{Must I} \\ \underline{\text{!Will I}} \end{array} \right\}$  take Jill home?

Where will would normally be interpreted either epistemically or, in a rather facetious <sup>trappige</sup> utterance, volitionally ("Am I (really) willing to take Jill home?").

It is precisely because the deontic source with will is normally the speaker that this modal does not signal deontic meaning with first person subjects, cf. the distinction between will and must/have to in:

5 (c) I  $\left\{ \begin{array}{l} \text{have to} \\ \text{must} \\ \underline{\text{will}} \end{array} \right\}$  take Jill home.

As we shall see, will have signals volition, a modality which can be related to deontic modality.

In certain circumstances, such as the reporting of military regulations, will is used in its deontic sense where the source of the obligation is not necessarily the speaker:

5 (d) All men will present themselves for inspection at 17h00.

An absolute distinction between must and will cannot then always be drawn on these lines but this distinction may be regarded as sufficiently general to merit reflection in our semantic representation. Will does differ in a discrete way from must, however, in that the deontic source in the former is always Agentive - even if at one remove, as in 5(d), where the immediate source appears to be a regulation (cf. also §4.2.1.1(a) above). Thus 5(e), if acceptable at all in a deontic sense, will be interpreted as a kind of command with the speaker as deontic source (cf. 1(b)):

5 (e) !Jim will practise for at least five hours a day if he wants to jump higher than two metres.

With regard to all other aspects of basic semantic structure as exhibited in our semantic representations, will (cf. fig. 10(b)) is equivalent to must in this sense (cf. fig. 9(a), p.120).

Nearly synonymous modality markers are as identified for Agentive deontic must, although, as noted, there is a fairly distinctive contrast with have (got) to along one dimension of meaning.

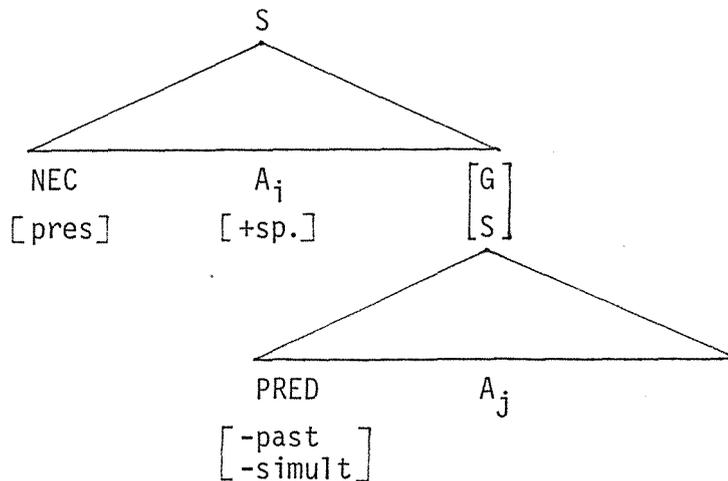


fig. 10(b)

*deselfde in  
deonties sal  
p. 145.*

5.2.1.2(c) Volitional necessity

This type of modality is related to deontic modality on the one hand and intrinsic Agentive modality on the other. The latter relates to habitual meanings and to a certain extent implies volition. There are accordingly senses of will which involve both notions, but in such cases one sense is usually dominant.

As in the case of deontic will the epistemic sense is here present as an undertone.

Volitional senses of will are exemplified in sentences such as

- 6 (a) Freckles will feed Fido for you.  
 (b) Freckles will feed Fido aniseed drops - now the poor dog is addicted.

The volitional modalities relate closely to the deontic types, because here too the source of the modality can be regarded as Agentive. The difference lies in the fact that while the source and goal Agents in the deontic modalities are never coreferential, the source Agent is always coreferential with the subject of the clause containing a volitional modality marker. Thus in 6(b) for example, Freckles is both the source and the goal Agent, the meaning of the sentence being equivalent to a construction of the order of Freckles "makes it necessary" (Freckles feeds Fido).

Whatever the surface structure modality marker, i.e. whether it be insist on or will, the second occurrence of Freckles is deleted. If the volitional modality marker is not an auxiliary verb it can often appear, as has already been seen in the discussion of various deontic markers, in constructions where source and goal Agents are not coreferential (cf. e.g. 1(d) above, i.e. the warden wants Jack to take Jill home). On the other hand, in English, if the marker is an auxiliary either the source Agent or the goal Agent may appear in surface structure but never both.

It will be seen then that the terms "Agentive deontic" and "volitional" actually refer to the same modality seen from different perspectives in accordance with the orientation of the relevant modal auxiliary: the goal-oriented auxiliaries, i.e. those which take as subject a goal Agent (e.g. must) are described as "Agentive deontic" while the source-oriented

auxiliaries, i.e. those taking a source Agent as subject (e.g. the variants of will under discussion here) are described as "volitional". In semantic representation however, as noted, both source and goal Agents appear and essentially the same semantic representation is seen to underlie expressions containing volitional non-auxiliary modality markers (e.g. wants in 1(f) above) and those containing goal-oriented modal auxiliaries (e.g. Jack must take Jill home).

In expressions such as 6(a) and (b) then, which contain volitional modal auxiliaries, the Agent is seen as imposing an obligation on himself: in some sense he "makes it necessary" for himself to carry out the relevant action. Thus notions associated with volition such as "the dictates of the will" and "inner compulsion" are reflected in semantic representation by a structure containing coreferential source and goal Agents.

The strength of the volition may vary and so in 6(a) will signals relatively weak volition or "willingness". The sense conveyed here is that although the Agent might not fulfil the predication unprompted, he will certainly do so if certain other conditions obtain: if, for instance, he is asked to carry out the action he will "make it necessary" for himself to do so. A nearly synonymous modality marker here is be willing to.

In 6(b) will carries the sense of strong volition or "insistence". This will is always stressed and cannot contract to 'll. Here the connotation of inner compulsion is very strong and with second and third person subjects this will very often suggests habitual activity on the part of the Agent because, one might argue, it is only because the action is habitual that it comes to be recognised by the speaker to derive from some inner compulsion. If the Agent is in the first person, as in 6(c), the stressed will indicates strong inner compulsion once again but here a non-habitual context is quite normal: the speaker, obviously, has direct knowledge of the strength of his own volitions.

6 (c) Despite what you say, I will take this matter up with the committee.

A nearly synonymous modality marker here is insist on +-ing.

Will then, can express either weak or strong volition on the part of the Agent which surfaces as the subject. An intermediate position between these two senses of will is occupied by the catenative want to. The

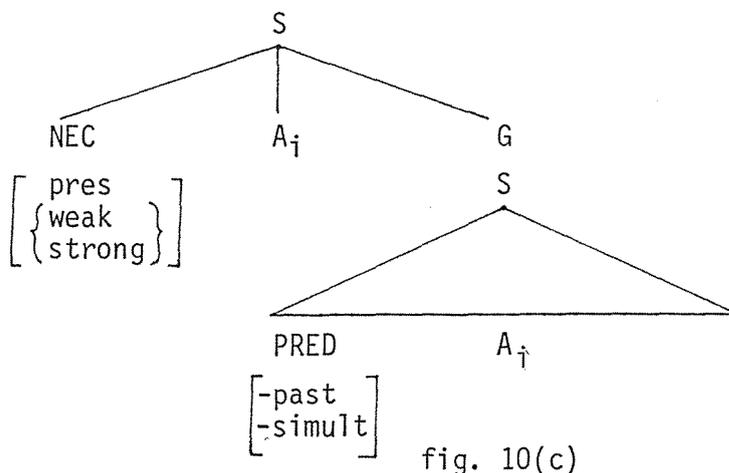
scalarity here is exemplified by way of 6(d)-(g):

- 6 (d) I want to feed him aniseed drops although I don't insist on doing so.
- (e) \*I insist on feeding him aniseed drops although I don't want to do so.
- (f) ?I'm willing to feed him aniseed drops although I don't want to.
- (g) \*I want to feed him aniseed drops although I'm not willing to.

It is because the implication relation between the forms is unilateral, i.e. insist  $\supset$  want  $\supset$  willing, that 6(e) and (g), in which such an implication is denied, are unacceptable. (Sentence 6(f) is only marginally acceptable as it stands and is best understood in the context of a preceding clause such as if it's absolutely essential to his wellbeing ...).

Want to, then, does not mark a particularly weak or a particularly strong modality and represents an intermediate value on the scale from be willing to to insist on. The auxiliary will can only reflect meanings which parallel those of the latter forms and so in the semantic representations of this auxiliary the modal predicate NEC will be marked with the "volition features" [strong] or [weak]. The semantic representation of want to is identical to those for the two variants of volitional will (cf. fig. 10(c)) except that it does not contain either of these markedness features. As such want to will be seen to be the normal semantic counterpart of Agentive deontic must and will (without emphatic stress).

In fig. 10(c) the identical indices on the source and goal Agents indicate that these Agents are coreferential.



As revealed in the semantic representation, the process may be future (cf. 6(h) and (i)) or contemporaneous present (6(j) and (k)) but not simultaneous present (6(l) and (m)) or past (6(n) and (o)).

6 (h) Freckles will feed Fido for you tomorrow.

(i) I wíll take up this matter with the committee.

(j) Freckles wíll feed Fido these days but he used to hate doing it.

(k) Nowadays he will keep feeding the poor dog aniseed drops.

(l) !Freckles will be feeding Fido for you.

(m) !?He wíll be feeding the dog aniseed drops.

(n) ! Freckles will have fed Fido for you.

(o) !?He wíll have fed the poor dog aniseed drops.

Examples 6(l)-(o) allow only an epistemic interpretation, the stressed form in 6(m) and (o) being interpretable as expressing strong conviction on the part of the speaker.

#### 5.2.1.2(d) Intrinsic Agentive necessity

This "habitual" meaning of will, which is related to the volitional sense just discussed, and exemplified in

7 (a) Louis will watch TV all night

usually only appears with temporal specifiers which are compatible with an interpretation involving repeated action on the part of the Agent (cf. habitual can - §4.2.1.1(b)). Depending on the context, 7(a) can be given a habitual ("is inclined to") or a volitional ("is willing to") reading, with the former probably being more frequent, but

7 (b) Louis will watch TV tomorrow night

is not open to a habitual interpretation and can only be volitional or epistemic.

As in the case of many senses of will, epistemicity is present as an undertone in 7(a) too, but primary focus here is on some characteristic

of the Agent rather than on the speaker's belief. The patterning of this habitual will with regard to deep tense and deep aspect accords with this view, only 7(c) but not 7(d) and (e) being interpretable in the habitual sense:

- 7 (c) Louis would watch TV all night in the old days.  
 (d) !Louis will have watched TV all night.  
 (e) !Louis will be watching TV all night.

As noted above, an alternative modality marker for this will is be inclined to, which cannot be substituted for the epistemic will in 7(d) and (e). In contrast to strong volitional will, it is here the notion of "habituality" that is primary while volition hardly enters the picture. What it is that can be said to make it necessary for the Agent to behave in a certain manner is here not the Agent's conscious will, but rather, as in the case of habitual can (cf. §4.2.1.1(b)), some property internal to the Agent, which can be represented as having Instrumental function. As with intrinsic (which includes habitual) can, the semantic representation of this will (cf. fig. 10(d)) therefore contains the feature [+int] on this Instrumental modality source.

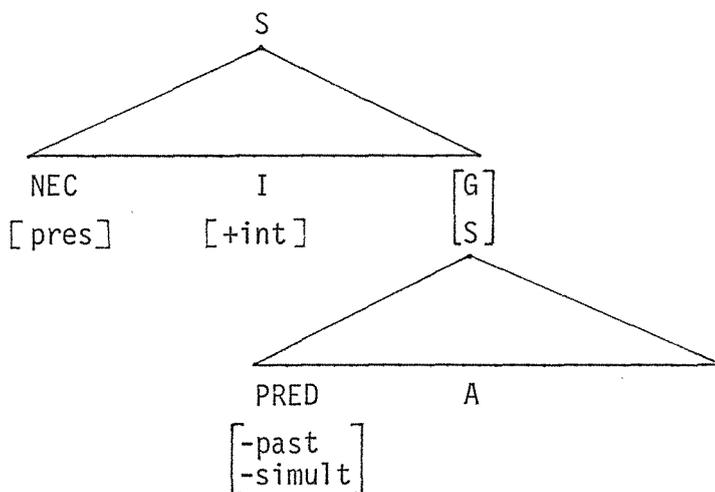


fig. 10(d)

As shown in fig. 10(d), this will contrasts with habitual can (cf. fig. 3(b) p. 59) in that it is not incompatible with future specifiers, as in

- 7 (f) Louis will watch TV every night next year

where, admittedly, it becomes very difficult to draw a distinction between

the habitual and the epistemic ("predictive") senses.

5.2.1.2(e) Intrinsic non-Agentive necessity

As in the case of intrinsic non-Agentive possibility (cf. §4.2.1.1(c)), the goal of the modality is non-Agentive i.e. it is an Instrument or an Object, as in

8 (a) Sudso will remove all kinds of stain.

and (b) Oil will float on water.

This sense of will is the non-Agentive counterpart of the habitual sense in that it also relates to some property of the subject. There is very little difference between this sense and the purely epistemic sense of will, but it should be noted that this sense has a past counterpart with would (cf. §5.3.1.1(a)) and also that it is not really compatible with progressive forms, cf.

8 (c) ?? Oil will be floating on water.

The semantic representation for this will (cf. fig. 10(e)) is then identical to that given in fig. 10(d) apart from the specification of arguments in the lower predicate.

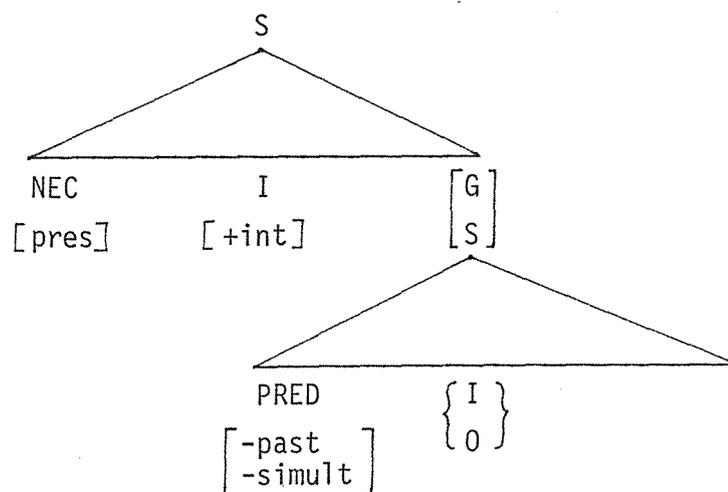


fig. 10(e)

5.2.1.3 SHALL

Shall tends to be the most rarely used of all the English modal auxiliaries. Despite the fact that it is generally acknowledged that it has a higher frequency of occurrence in British English than in American English (cf. e.g. TAUBITS 1978), table 1 (p. 72) shows that even in corpora based on a formal spoken register of the former dialect, shall appears far less frequently than any of the other "classical" modal auxiliaries.

In written language shall still appears fairly regularly with first-person subjects where an epistemic ("predictive") meaning is expressed (cf. e.g. the "editorial" use of we shall in journals etc.). This use of shall is still found in spoken English but the meaning expressed here too is essentially the same as that of epistemic will, as seen in 9(a):

9 (a) I/we { shall } win that match tomorrow.  
                  { will }

In the context of teaching English as a second language in South Africa, remarks made by Ehrman on the position of shall in American English are very pertinent. Noting that shall "is well on the way to becoming obsolete" she declares that "it has lost its status as an independent part of the modal system and is now best referred to as a stylistic variant of will conditioned by the person of its subject or by a desired connotation of prestige socio-educational level or by both ... I could speak perfectly idiomatic English without ever using another shall" (EHRMAN 1966 : 57).

These remarks apply equally well to English as spoken in South Africa, including those varieties of "educated" South African English to which the learner might aspire, but there is one notable exception here, namely the use of shall in interrogative structures with first-person subjects to signal a deontic meaning where will would signal an epistemic or volitional meaning (cf. § 5.2.1.2(b)):

- 9 (b) Shall I close the windows for you?  
      (c) Will I close the windows for you?

As will in interrogatives never has a deontic sense, 9(c) will - given the context of an action which would, putatively, be in accordance with the addressee's wishes - be interpreted normally as a rather <sup>graciously</sup> facetious utterance in which the speaker appears to ask himself whether he will indeed

carry out the action.

In non-interrogative constructions deontic shall has largely given way to will in spoken English but it is still used in certain written styles such as legal and quasi-legal language, e.g.

9 (d) Twenty five members shall constitute a quorum.

This use of shall parallels the deontic will of "military" language (cf. §5.2.1.2(b)).

Thus to the extent that it is used, shall may be said to express epistemic and deontic meanings (cf. figs. 10(a) (p.125) and 10(b) (p.127) respectively: the deontic source with shall would be specified as an Agent, together with the feature [+h.] ("+hearer") to reflect the frequent use in structures such as 9(b) above where this Agent is normally the addressee).

#### 5.2.2 Non-oblique forms: Afrikaans

The non-oblique forms of the Afrikaans modal auxiliaries which contain the modal predicate NEC in their semantic representations are moet, wil and sal.

##### 5.2.2.1 MOET

The semantics of this modal parallel those of cognate <sup>verwant</sup> must to a considerable extent, one of the few marked differences being that non-epistemic moet, like the other non-epistemic and non-oblique modal auxiliaries in Afrikaans, can, in addition to signalling present modality, also unambiguously signal future modality when, for example, it is combined with sal and where English would normally have will have to. sal moet.

As in the case of must, moet expresses essentially two kinds of modality: (a) deontic (Agentive and Instrumental) necessity; and (b) epistemic necessity, although - as will be seen - an argument can be made for an extrinsic Agentive necessity sense as well.

5.2.2.1(a) Deontic necessity

As with must two variants of this type of modality can be identified, i.e. Agentive (cf. 10(b)) and Instrumental (cf. 10(d)).

10 (a) Jy moet sommer dadelik verlof neem.

(b) Om betyds daar aan te kom, moet ons nou ry.

Thus in 10(b) the source of the modality is not an Agent but a certain set of circumstances as, for example, those specified in

10 (c) Die feit dat dit ver is en dat hierdie ou tjorrie stadig is maak dit nodig dat ons nou ry.

It would appear that the use of moet, unlike that of must, does not necessarily presuppose speaker/hearer identification with the modality source, as indicated by the perfect acceptability of 10(d) as opposed to the oddness of the must variant in 10(e) (cf. also 1(c) above):

10 (d) Jy moet sommer dadelik verlof neem. Is dit nie 'n skande nie!

10 (e) You { ?must  
have to } take leave immediately, which, I think, is very unfair.

Similarly, where the modality source is Instrumental, the speaker/hearer need not be presumed to be a secondary deontic source, and hence a reporting utterance such as 10(f) is not associated with any kind of "deontic intent" (in English have (got) to would be used here).

10 (f) As jy jou lisensie op die laaste dag probeer koop is daar so baie mense daar dat jy urelank moet toudaan.

The modality expressed by moet in 10(f) would then be better described as extrinsic Agentive necessity but we mention this sense here as it shares essentially the same set of alternative modality markers as the property (Instrumental) deontic counterpart exemplified in 10(b), where the speaker may be presumed to fulfil the role of secondary deontic source.

There are only minor differences in the sets of alternative modality markers that may be used to paraphrase Agentive and Instrumental deontic moet. Thus when the modality source is given in surface structure verplig (word), vereis (word) and genoodsaak word are generally acceptable in both cases, as are verplig/vereis/genoodsaak word and nodig wees dat when it is not given. On the other hand, nodig maak dat/vir can only usually be used where the modality source is Instrumental while wil ... hê, which, as we shall see, has a related semantic representation to this moet, is normally only possible where the modality source is Agentive.

Both modality and process may be present or future and, unlike Agentive must (cf. 1(h) above) Agentive moet is regularly used with a present process when the modality too is present, i.e. it is quite normal in expressions where a contemporaneous (or "habitual", cf. 10(f) above) obligation is being reported, and hence where have (got) to is preferred in English, e.g.:

10 (g) But here you've got to have papers. (F.A.: 36)

(h) Maar hier by ons moet jy jou vorms en goed hê. (V.W.: 29)

With this non-epistemic moet the process is not normally past, so to the extent that e.g.

10 (i) !Hy moet sommer dadelik verlof geneem het

is acceptable, it is interpreted epistemically.

As with the other non-epistemic modal auxiliaries, simultaneous deep aspect is incompatible with this moet. Thus 10(j) too, only has an epistemic interpretation.

10 (j) !Hy moet besig wees om sy boek te skryf.

The semantic representation of deontic moet is given in fig. 11(a) (cf. fig. 9(a), p.120 for this sense of must).

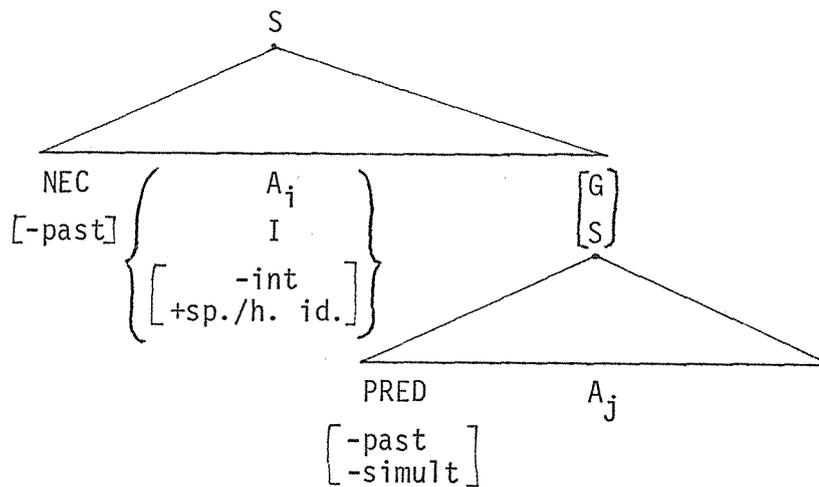


fig. 11(a)

Extrinsic Agentive moet would take as a modality source simply  $[-int]^I$  but the semantic representation would be identical in other respects to that given here.

Mention should here be made of the quasi-auxiliary behoort (hoort) ... te, which also manifests Agentive and Instrumental variants of a deontic modality (cf. 10(k) and (l) respectively).

10 (k) Jy behoort sommer dadelik verlof te neem.

(l) Om betyds daar aan te kom behoort ons nou te ry.

The modality here relates also to necessity as opposed to possibility, but the necessity expressed is toned down to various extents and so, as has already been noted for the epistemic sense (cf. § 4.3.2.1), behoort may be classified as a marker of remote necessity, here deontic. Support for this classification derives in part from the fact that when it combines with a ge-... het form, behoort can express contrafactivity, a property which has been seen to be a characteristic of the oblique forms of the modal auxiliaries. Thus in both 10(m) and (n) the complement would normally be interpreted contrafactively and the modality expressed by both behoort and moes is remote necessity:

10 (m) Jy behoort te gepraat het.

(n) Jy {  $\begin{matrix} *moet \\ moes \end{matrix} \}$  gepraat het.

When accompanying a verb in the ge-... het form then these two modals have essentially the same meaning (cf. e.g. DE VILLIERS 1968 : 95) but an added dimension to the remoteness of behoort i.e. its use in "tentative" hortative speech acts such as advising, suggesting etc. relates to the fact that it is usually associated with a non-speaker/hearer deontic source. Whether this source is Agentive or Instrumental, however, speaker/hearer identification is normally presupposed, as indicated by the strangeness of 10(p) as opposed to 10(o) (and also 10(d) above).

10 (o) Jy is veronderstel om dadelik verlof te neem. Is dit nie 'n skande nie!

(p) ?Jy behoort dadelik verlof te neem. Is dit nie 'n skande nie!

The modality source in a semantic representation of deontic behoort would then be characterised as follows:

$$\left. \begin{array}{c} \text{A} \\ \left[ \begin{array}{l} -\text{sp./h.} \\ +\text{sp./h. id.} \end{array} \right] \\ \text{I} \\ \left[ \begin{array}{l} -\text{int} \\ +\text{sp./h. id.} \end{array} \right] \end{array} \right\}$$

*bon/springy / NOT committing oneself.*

As seen in 10(k) and (l), the speaker hedges, identifying himself with the modality source but not presenting himself as the primary deontic source.

#### 5.2.2.1(b) Epistemic necessity

Epistemic moet, like must, expresses only present modality and so there are no significant semantic differences between the two cognates in this sense. Moet also expresses near certainty on the part of the speaker as to the truth of the relevant proposition, as in

*of same linguistic family.*

11 (a) Ek weet iewers moet daar 'n straat wees wat reguit gaan. (S.)

Where the modality source appears in surface structure a near-synonymous construction could be vir (my) nodig maak om te glo dat (cf. 11(b)): other modality markers include vir (my) nodig wees om te glo dat and, more commonly, seker (cf. 11(c)).

11 (b) Die feit dat Piet so gesê het maak dit nodig vir my om te glo dat daar iewers 'n straat is wat reguit gaan.

(c) Iewers is daar seker 'n straat wat reguit gaan.

Similarly to must, moet tends to be avoided where the process is future and where an epistemic meaning is intended. Thus although 11(d) is, given the required context, acceptable as an epistemically modalised sentence, 11(e), where the modality marker is seker, and 11(f), where seker reinforces the epistemic sense of the auxiliary, are preferable. As in English (cf. §5.2.1.1(b)) the meaning of "present plan relating to future event" is evident here.

11 (d) Hy moet môre in Kaapstad aankom.

(e) Hy kom seker môre in Kaapstad aan.

(f) Hy moet seker môre in Kaapstad aankom.

As noted above (cf. 10(h)), to the extent that it is used, the moet + ge-... het construction normally expresses epistemic modality with past process, as seen also in

11 (g) Dan moet dit al gereën het. (S.)

Epistemic moet also takes simultaneous aspect (cf. 10(i) above). The semantic representation of epistemic moet is then the same as that given in fig. 9(b) for epistemic must (p. 121).

As was noted earlier (cf. §4.3.2.1 and 21(d) above), behoort ... te may be regarded also as the remote counterpart of epistemic moet, expressing a lower degree of confidence on the part of the speaker as to the truth of the relevant proposition. The semantic representation of this non-"classical" auxiliary is identical to that for epistemic moet (and must) except that: (a) here, and in the case of non-epistemic behoort, the modal predicate NEC takes the feature [+rem]; and (b) the lowest predicate is not restricted in any way with respect to deep tense or aspect. In normal usage, epistemic behoort differs from moet in that it is more freely used in contexts where the process is future, e.g.

11 (h) Hy behoort môre in Kaapstad aan te kom.

5.2.2.2 WIL5.2.2.2(a) Volitional necessity

The meanings of wil differ from those of the congruent, cognate English form will in various ways: the Afrikaans modal has neither epistemic, nor habitual ("intrinsic"), nor - with respect to its subject Agent - deontic senses, and it is essentially restricted to the expression of volition; <sup>power of willing</sup> <sub>exercise the will.</sub> furthermore, the strength of the volition expressed by wil is normally, although not always, different to that expressed by will.

Wil usually expresses the unmarked, intermediate type of volition identified for want to above, as in:

12 (a) Ek wil die satire koop.

As with volitional will, the modality source here can be represented as an Agent which is coreferential with the goal Agent in semantic representation - the interpretation here again is that the Agent in some sense obliges or "makes it necessary for" himself to carry out whatever action or be involved in whatever state is identified. The meaning here can be more nearly represented in a deeper structure such as Ek wil (ek koop die satire). The source-orientation of the volitional modals is brought out clearly in the case of wil because - usually in the construction wil hê - it can take a noun-phrase complement in surface structure which includes a subject that is not coreferential with the subject of wil, as in

12 (b) Ek wil so graag (hê) dat jy die satire koop.

Accordingly, no deletions take place and both source and goal Agents appear in surface structure.

As 12(b) is broadly synonymous with one interpretation of

12 (c) Jy moet die satire koop

namely where the speaker himself and not some third party is the source of the obligation, the semantic representation of wil is essentially the same as that for Agentive deontic moet (cf. fig. 11(a)), the difference in surface structure being that if wil is to be derived, the source Agent will

always appear, while with moet it is always deleted and the goal Agent appears as the subject of the sentence. The parallel with English want to/must will be obvious. As the source and goal Agents may or may not be coreferential here, the Agent labels in the semantic representation of wil in fig. 12(a) (cf. fig. 11(a), p.138, for moet) are not indexed.

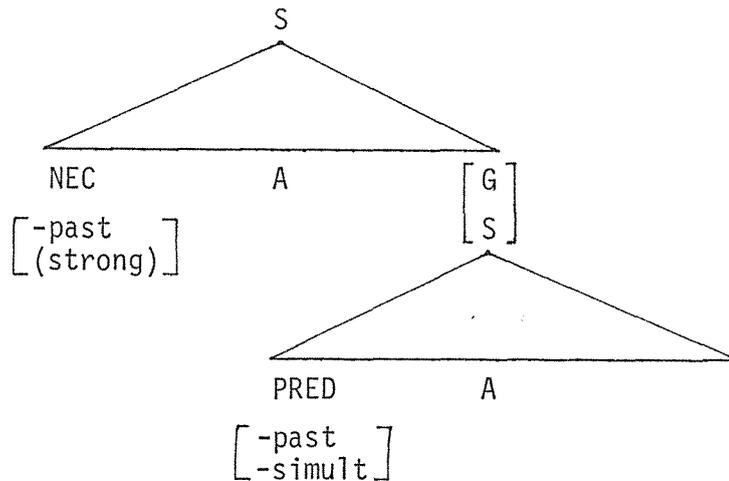


fig. 12(a)

Deep-tense and deep-aspect specifications are as normal for non-epistemic non-oblique modal auxiliaries in Afrikaans. As noted for want to, wil usually represents an unmarked, intermediate volition strength and so the modal predicate is usually unspecified for this property. When, however, wil is stressed, it usually has the sense of strong volition or insistence, as in

12 (d) Hoekom wil hy by jou verbygaan, en dan op 'n blinde draai? (M.)

Thus in this sense only (marked as an optional feature in the composite semantic representation in fig. 12(a)) wil is synonymous with the congruent English will and has as an alternative modality marker aandring op. Weak volition, as we shall see, is signalled not by wil but by sal.

### 5.2.2.3 SAL

As with English will, sal cannot be said to have a "non-modal" futurity sense: "Hoewel dit algemeen gesê word dat sal as hulpwerkwoord vir die toekomstige tyd dien, is hierdie funksie eerder 'n implikasie of bykomende waarde van die werkwoord ..." (DE VILLIERS 1968 : 89). In this context

sal is best explained as an epistemic modal taking a future process in parallel fashion to the other epistemic modal auxiliaries, as in 13(a) and (b):

13 (a) Die President kan  $\left\{ \begin{array}{l} \text{m\`o}re \\ \text{nou} \end{array} \right\}$  in Pretoria wees.

(b) Die President sal  $\left\{ \begin{array}{l} \text{m\`o}re \\ \text{nou} \end{array} \right\}$  in Pretoria wees.

Like will, and in contrast to moet (and must), sal is oriented towards the future, i.e. it tends to express a likelihood based on future expectation rather than on present conjecture, but, as seen in 13(b), this does not mean that it always takes a future process when it expresses epistemic necessity.

The different senses of sal are as for will, expressing the following types of "necessity": (a) epistemic; (b) Agentive deontic; (c) volitional; (d) intrinsic Agentive; and (e) intrinsic non-Agentive. It will be seen that sal is essentially equivalent to will in meaning; apart from certain differences in respect of the volitional sense.

#### 5.2.2.3(a) Epistemic necessity

As in the case of will v. must, sal is epistemically stronger than moet. A scale of likelihood is illustrated in

14 (a) Die President  $\left\{ \begin{array}{l} \text{kan/mag} \\ \text{behoort} \\ \text{moet} \\ \text{sal} \end{array} \right\}$  nou in Pretoria (te) wees.

Where the process is future the catenative gaan parallels be going to in expressing an even stronger conviction on the part of the speaker that the content of the process will be realised:

14 (b) Hy  $\left\{ \begin{array}{l} \text{kan/mag} \\ \text{behoort} \\ \text{moet (seker)} \\ \text{sal} \\ \text{gaan} \end{array} \right\}$  m\`o}re in Kaapstad aankom/aan te kom.

Gaan is only "modal" in meaning in so far as it refers to a future state

*N.S. die  
"ongewenste"  
skool.*

or event which as such cannot have the factive status of a present or past state or event.

The semantic representation of epistemic sal is identical to that of epistemic will as given in fig. 10(a), p.125. There are then no deep-tense or aspect restrictions on the process it takes: indeed of all the non-oblique epistemic modal auxiliaries in Afrikaans, sal is probably the one which combines most readily with ge-... het forms to signal past processes, e.g.

14 (c) Hy sal daar reeds aangekom het.

Nearly synonymous modality markers here include - as for moet - vir (my) nodig maak om te glo dat and vir (my) nodig wees om te glo dat, as well as e.g. seer seker, beslis, sekerlik and gewis (cf. 14(d)). Seker alone usually expresses the weaker epistemicity signalled by moet.

14 (d) Hy kom  $\left\{ \begin{array}{l} \text{seer seker} \\ \text{beslis} \\ \text{sekerlik} \\ \text{gewis} \end{array} \right\}$  mōre in Kaapstad aan.

#### 5.2.2.3(b) Deontic necessity

As in the case of the will v. must distinction, deontic sal is more forceful than moet, this being partly due to the fact that the deontic source with sal is normally the speaker/hearer and that utterances containing deontic sal are therefore nearly always obligation-creating rather than obligation-reporting (cf. 15(a) as opposed to 10(a) above).

15 (a) Jy sal sommer dadelik verlof neem.

Accordingly sal (like will) expresses volition and not deontic necessity when used in this type of context with first-person subjects. It is then a source-oriented modal in such cases but goal-oriented with second- and third-person subjects and contrasts with the other two non-oblique "necessity" modal auxiliaries moet and wil which are always goal-oriented and source-oriented respectively.

When sal is used in the rather restricted contexts identified in the discussion of will and shall above as "military" and "legal", the source

of the obligation is not necessarily the speaker, although it can practically always be regarded as an Agent, even if at one remove (cf. § 5.2.1.2(b)). Generally however the deontic source is the speaker/hearer and so the semantic representation of deontic sal is identical to that of deontic will, given in fig. 10(b) above (p.127) except that the deontic source with sal must be specified as [+sp./h.] and not just as [+sp.] as deontic sal is perfectly regular in questions, e.g.

15 (b) Sal ek die venster oopmaak?

where in English the modal used would be shall and not will (cf. 5(b), p. 126 and 9(b), p. 134 above).

Near-synonymous modality markers for sal are as for those given for Agentive deontic moet, except that because of the greater directness of sal, the impersonal passive forms (verplig/vereis/genoodsaak word) and the impersonal construction nodig wees dat are best excluded here. This leaves verplig, vereis and wil ... hē as typical markers:

15 (c) Ek  $\left\{ \begin{array}{l} \text{vereis} \\ \text{wil hē} \end{array} \right\}$  dat jy sommer dadelik verlof neem.

(d) Ek verplig jou om sommer dadelik verlof te neem.

### 5.2.2.3(c) Volitional necessity

As in the case of will, sal can express both weak and strong volition.

Weak volitional sal is exemplified in

16 (a)  $\left\{ \begin{array}{l} \text{Ek} \\ \text{Jy} \\ \text{Fanie} \end{array} \right\}$  sal vir hulle sing will

an alternative modality marker for this sense being gewillig wees om te.

Here too - as in all volitional and deontic uses of sal, will and shall - the epistemic, predictive sense is present as an undertone. The element of "will" is however distinctive here and contrasts with the purely predictive sal of

16 (b)  $\left\{ \begin{array}{l} \text{Ek} \\ \text{Jy} \\ \text{Fanie} \end{array} \right\}$  sal val as  $\left\{ \begin{array}{l} \text{ek} \\ \text{jy} \\ \text{hy} \end{array} \right\}$  daardie ding probeer ry. Sal

The semantic distinction here has a formal correlate in that volitional but not epistemic sal may be used in "if"-clauses:

- 16 (c) As jy vir hulle sal sing, sal ons dit waardeer.  
 (d) \*As jy sal val, sal ons vir jou help.

Strong volitional sal, which is signalled by heavy stress on the modal, only appears with first-person subjects. Thus in

- 16 (e)  $\left\{ \begin{array}{l} \text{Ek} \\ \text{Jy} \\ \text{Fanie} \end{array} \right\} \underline{\text{s\`a}l} \text{ vir hulle sing}$

sal is source-oriented with ek but goal-oriented, i.e. Agentive deontic, with jy and Fanie. Only in the former case is s\`al essentially equivalent to w\`il, cf.:

- 16 (f)  $\left\{ \begin{array}{l} \text{Ek} \\ \text{!Jy} \\ \text{!Fanie} \end{array} \right\} \underline{\text{w\`il}} \text{ vir hulle sing.}$

In all three cases the speaker's volition is expressed and so the first-person version of 16(e) could be described as expressing a particular kind of deontic modality, i.e. that where source and goal Agent are coreferential. As noted above however (cf. §5.2.1.2(c)) the term "volitional" is used to distinguish source-oriented from goal-oriented Agentive deontic modal auxiliaries.

Strong volitional s\`al differs then from strong volitional w\`il which can appear with subjects in any person (cf. e.g. 6(a) and (b) above).

A nearly synonymous modality marker here is aandring op.

The semantic representation of volitional sal is given in fig. 13(a) and is identical to that given for volitional will in fig. 10(c) (p.130), except that in this composite representation the source Agent is shown to be always the speaker if strong volition is expressed, cf. the variable  $\beta$  on the optional features [strong] and [+sp.] which should be understood as indicating that where the former feature applies the latter does too.

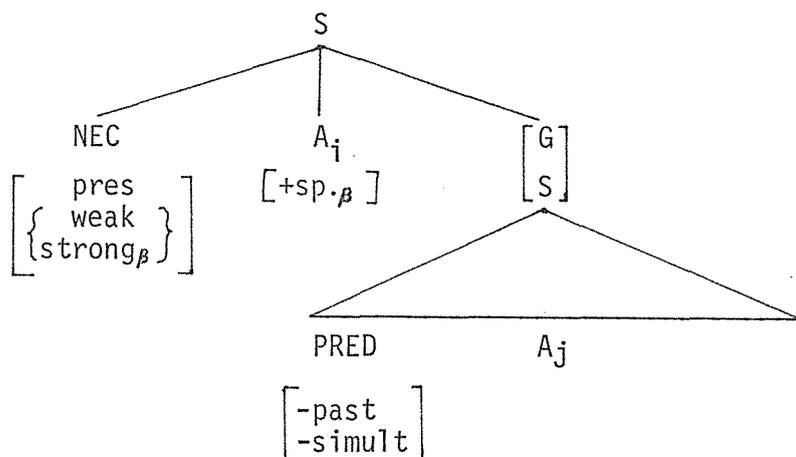


fig. 13(a)

5.2.2.3(d) Intrinsic Agentive necessity

sal is used in the same way as is English will to express a "necessity" which can be construed as being the source of a habit or characteristic behaviour on the part of the Agent subject. This sense of sal is exemplified in

17 (a) Blomerus sal elke aand sit en TV kyk.

Once again an epistemic, predictive sense is present as an undertone but the distinctive factor here is the focus on some characteristic of the Agent rather than purely on the speaker's belief.

The semantic representation of this sense of sal is identical to that given for intrinsic Agentive will in fig. 10(d), p.132.

An alternative modality marker here is geneig wees om te ...

5.2.2.3(e) Intrinsic non-Agentive necessity

The goal of the modality here is non-Agentive but here too the focus is on some characteristic or property of the goal subject, as in 17(a) (Instrumental) and 17(b) (Objective):

17 (a) Die teensuur sal suuropeenhoping vinnig neutraliseer.

(b) Olie sal op water dryf.

Here too, the predictive meaning of sal is obviously basic, but the examples express more than simply the speaker's belief: they also express some durable quality of the relevant subject.

The semantic representation of this sal is as given for intrinsic non-Agentive will in fig. 10(e), p. 133.

### 5.3 Oblique forms

The oblique forms of the "necessity" modal auxiliaries are would and should for English and moes, wou and sou for Afrikaans. Must represents a paradigm gap in English as it has no oblique form: forms of have to are used here to signal the meanings normally associated with the oblique modal auxiliaries, i.e. past modality (cf. 18(a)), conditional and non-conditional remote modality (cf. 18(b) and (c)) and conditional and non-conditional remote modality with remote process (cf. 18(d) and (e)).

- 18 (a) Jack had to take Jill home.  
 (b) Jack would have to take Jill home if you didn't.  
 (c) If Jack had to take Jill home she'd be very annoyed.  
 (d) Jack would have had to take Jill home if you hadn't.  
 (e) If Jack had had to take Jill home she would have been very annoyed.

It should be noted here that forms of the have got to variant of this modality marker are not generally acceptable in any of the contexts illustrated in 18(a) to (e).

The various oblique modal auxiliaries will now be considered in accordance with the main semantic divisions identified here in the case of have to.

#### 5.3.1 Oblique forms: English

##### 5.3.1.1 WOULD

We discuss the meanings of would under the following main headings:

- (a) past non-epistemic necessity;  
 (b) remote non-epistemic necessity; and  
 (c) other meanings.

5.3.1.1(a) Past non-epistemic necessity

As in the case of the "possibility" modal auxiliaries, when the "necessity" is non-remote but past the process must also be deep-tense past.

Would reflects past modality for all the non-epistemic senses of will except deontic necessity. As was shown in 18(a) above, past deontic necessity is signalled by had to and in

19 (a) Jack { will / would } take Jill home

only will, but not would, can be interpreted deontically.

Fig. 14(a) is a composite representing the basic semantic structure of all the past non-epistemic senses of would. As noted above (cf. §4.3.3.1(a)) the simultaneous v. non-simultaneous distinction is not relevant in the context of utterances referring to the past and so there is no deep-aspect specification here.

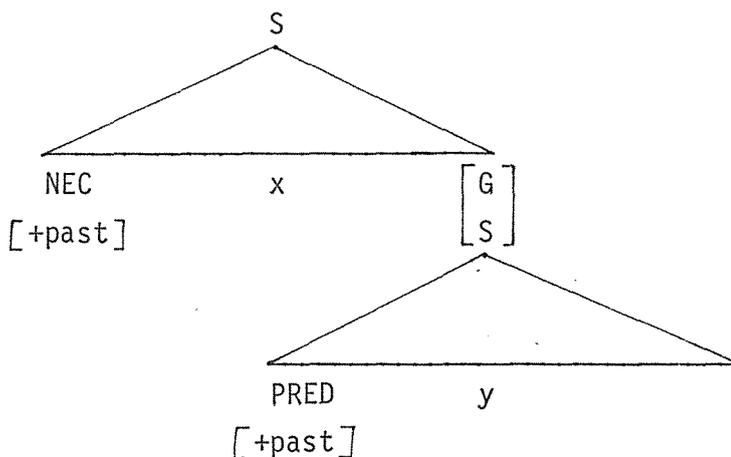


fig. 14(a)

(i) Past volitional necessity

Both weak ("willingness") and strong ("insistence") types of volition may be expressed by would, as in 20(a) and (b) respectively:

20 (a) Years ago Freckles would feed Fido for me but now he's just too lazy.

(b) Freckles would feed Fido aniseed drops - now the poor dog is addicted.

Would differs from will here in that the weak volitional sense of past modality would is always associated also with a habitual meaning: could was seen not to express a single action in the past (cf. §4.3.3.1(a)) and this would appears to behave in parallel fashion. Thus 20(c) cannot be interpreted as signalling weak volition, i.e. it cannot be paraphrased by a construction containing was willing to, this modality marker being the one that is usually used to express past willingness with respect to a single event (cf. 20(d)).

20 (c) !Pete would go to that party.

(d) Pete was willing to go to that party.

Strong volitional would, on the other hand, can be used to refer to a single action in the past, as in

20 (e) Pete would go to that party - now he's got an awful hangover.

An alternative modality marker here is insisted on.

The semantic representation of past volitional would is as given in fig. 14(a) but with the following modifications (cf. also fig. 10(c), p. 130):  
 $x = A_i$ ;  $y = A_i$ ; and NEC takes the extra "volitional" feature [weak] or [strong].

(ii) Past intrinsic Agentive necessity

This properly "habitual" sense of would is exemplified in

21 (a) In the old days Louis would watch TV all night.

Alternative modality markers here include was inclined to and used to.

The semantic representation is as given in fig. 14(a), but with the following modifications (cf. also fig. 10(d), p.132):

$x = \begin{matrix} I \\ [+int] \end{matrix}$ ; and  $y = A$ .

(iii) Past intrinsic non-Agentive necessity

Because of the focus on past time here, this would is not well suited to the expression of "universal truths". The strangeness of 22(a) for

example, derives from the possible connotation that the content of the process no longer takes place:

22 (a) ??In the old days oil would float on water.

Instrumental and Objective variants of this modality are exemplified in 22(b) and (c) respectively:

22 (b) Sudso - the stuff they no longer manufacture - was a real boon to housewives and would remove all kinds of stain.

(c) Every October the jacarandas would blossom.

A possible alternative modality marker here is used to, but not - except in "metaphorical" uses - inclined to.

The semantic representation for this would is as given in fig. 14(a), but with the following modifications (cf. also fig. 10(e), p. 133):

$$x = \begin{array}{l} I \\ [+int] \end{array} ; \text{ and } y = \begin{array}{l} \{ I \} \\ \{ 0 \} \end{array}$$

#### 5.3.1.1(b) Remote non-epistemic necessity

As in the case of past modality, would expresses remote modality for all the main non-epistemic senses of will except deontic necessity, but there is a further limitation here, namely that would in non-past contexts cannot express strong volition.

Fig. 14(b) is a composite representing the basic semantic structure of all the remote non-epistemic necessity senses of would in parallel fashion to the way in which fig. 14(a) represents the past senses. As noted above (cf. § 4.3.3.1(b)) deep-aspect specifications are not relevant here.

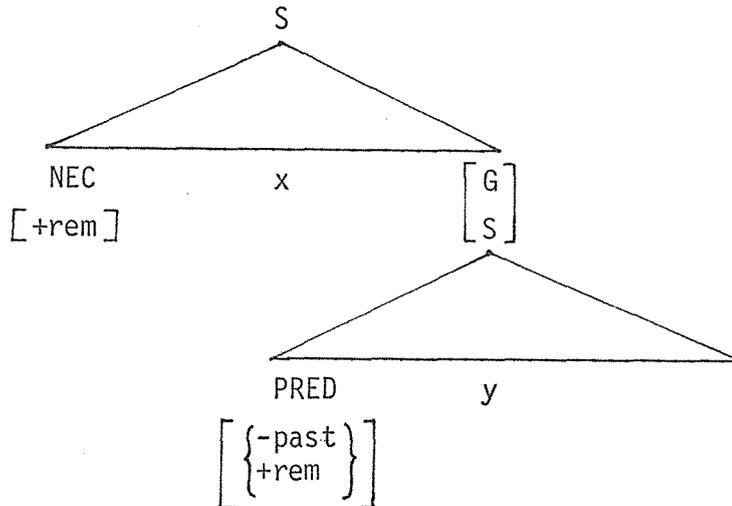


fig. 14(b)

(i) Remote volitional necessity

Would expresses both conditional and non-conditional types of "remote" willingness, as exemplified in 24(a) and the protasis of 24(b) respectively:

24 (a) Freckles would feed Fido if you asked him to.

(b) If Freckles would feed Fido, I would be very happy.

Alternative modality markers are respectively would be willing to and were willing to. It is the conditional sense of would here from which the would of polite requests, as in

24 (c) Would you please feed Fido?

derives, the connotations of remoteness and of suppressed conditions, e.g. ... if I were bold enough to ask you, being the main factors contributing to its suitability as a politeness marker (cf. also §4.3.3.1(b) for "politeness" could).

As noted above, would cannot express remote "insistence". Thus would in the protasis of 24(d), for example, is unacceptable, this type of modality being expressed by forms of insist on:

24 (d) If Fred { \*would feed  
insisted on feeding } Fido aniseed drops, I would stop buying them.

The semantic representation for remote volitional would is as given in fig. 14(b) but with the following modifications (cf. also fig. 10(c), p.130):  $x = A_i$ ;  $y = A_i$ ; and NEC takes the extra "volitional feature" [weak].

(ii) Remote intrinsic Agentive necessity

Only the conditional type of this modality may be signalled by would, as in

25 (a) If he had the money to buy a set he would watch TV all day.

An alternative modality marker here is would be inclined to.

The non-conditional would in the protasis of 25(b) would normally be interpreted as volitional and does not allow an intrinsic Agentive interpretation, i.e. a purely "habitual" interpretation in which "willingness" plays no part:

25 (b) If he would watch TV all day he would be taking a gamble on his future sanity.

The semantic representation of (conditional) remote intrinsic Agentive would is as given in fig. 14(b), modified as follows (cf. also fig. 10(d), p. 132):  $x = I$  ;  $y = A$  and is always specified as [+cond.]  
[+int]

(iii) Remote intrinsic non-Agentive necessity

As in the case of the Agentive variant of this modality, this would normally expresses conditional necessity, as in

26 (a) If I had some Sudso it would remove this stain in no time.

In non-conditional contexts, would with non-Agentive subjects is unusual e.g.

26 (b) ?If only the Sudso would remove this stain.

The only sense of would which regularly expresses non-conditional remote

modality appears to be the weak volitional one and so any strangeness about 26(b) probably derives from the fact that one would want to interpret it as expressing a kind of metaphorical volition on the part of the non-Agentive subject.

The semantic representation for remote intrinsic non-Agentive would is as in fig. 14(b), except for the following modifications (cf. also fig. 10(e), p. 133):  $x = \begin{matrix} I \\ [+int] \end{matrix}$  ;  $y = \begin{matrix} \{I\} \\ \{0\} \end{matrix}$  ; and NEC is always specified as [+cond].

(iv) Remote non-epistemic necessity with remote process

When non-epistemic would combines with auxiliary have both modality and process may be classed as remote, as in

- 27 (a) Freckles would have fed Fido if you had asked him to.  
 (b) If Freckles would have fed Fido I would have been very happy.  
 (c) If he had had the money to buy a set he would have watched TV all day.  
 (d) If I had had some Sudso it would have removed this stain in no time.

Typical alternative modality markers include would have been willing to (cf. 27(a)), had been willing to (cf. 27(b)) and would have been inclined to (cf. 27(c)).

As shown in fig. 14(b) would takes either a non-past or a remote process. Where the latter applies, the process is contrafactive, as in 27(a)-(d) above.

5.3.1.1(c) Other meanings

(i) Remote conditionality

As was noted earlier (cf. § 4.3.3.1(b)), would sometimes does not express modality in the strict sense ("necessity" or "possibility") but is merely a marker of remote conditionality which derives from the features  $\begin{bmatrix} +rem \\ +cond \end{bmatrix}$  on the relevant predicate in deep structure.

Where the relevant predicate is realised as a modal auxiliary would does not always appear in surface structure because certain other modal auxiliaries can convey remote conditionality as part of their meaning. Thus, as shown in 28(a), could and would be able to may be derived from the same predicate and so the former modal auxiliary expresses both a "possibility" modality and remote conditionality:

$$28 \text{ (a)} \quad \begin{array}{l} \text{POSS} \\ \left[ \begin{array}{l} -\text{past} \\ +\text{rem} \\ +\text{cond} \end{array} \right] \end{array} = \begin{array}{l} \text{(i) } \underline{\text{could}} \text{ e.g. I } \underline{\text{could}} \text{ earn a million if I wanted to.} \\ \text{(ii) } \underline{\text{would be able to}} \text{ e.g. I } \underline{\text{would be able to}} \text{ earn} \\ \text{a million if I wanted to.} \end{array}$$

Similarly, we have seen that would on its own can signal both a necessity modality and remote conditionality as in 28(b)(i):

$$28 \text{ (b)} \quad \begin{array}{l} \text{NEC} \\ \left[ \begin{array}{l} -\text{past} \\ +\text{rem} \\ +\text{cond} \end{array} \right] \end{array} = \begin{array}{l} \text{(i) } \underline{\text{would}} \text{ e.g. Freckles } \underline{\text{would}} \text{ feed Fido if you} \\ \text{asked him to.} \\ \text{(ii) } \underline{\text{would be willing to}} \text{ e.g. Freckles } \underline{\text{would be}} \\ \underline{\text{willing to}} \text{ feed Fido if you asked} \\ \text{him to.} \end{array}$$

Where the predicate specified as  $\left[ \begin{array}{l} +\text{rem} \\ +\text{cond} \end{array} \right]$  is not realised as a modal auxiliary, would must however appear in surface structure, as in 28(a)(ii) and 28(b)(ii), where the modality is signalled by be able to and be willing to and would is introduced to convey the remote conditionality meaning. This applies equally where the predicate is non-modal, as in

28 (c) John would enjoy a trip on the mailship if they still operated where in deep structure enjoy is specified as  $\left[ \begin{array}{l} +\text{rem} \\ +\text{cond} \end{array} \right]$  and would is once again introduced as a marker of the remote conditionality.

(ii) "Sequence-of-tenses" would

Although "sequence-of-tense" uses of the modal auxiliaries are not examined here (cf. § 4.3), this is a very frequent use of would, being as it is an "automatic" past form of all uses of will, including epistemic will, as in 29(a), which exemplifies the operation of sequence-of-tense "rules" in "indirect speech" constructions and 29(b), which exemplifies

the "free indirect speech" environment (reporting clause omitted):

- 29 (a) He said that the President would go to Pretoria tomorrow.  
 (b) The President would go to Pretoria tomorrow and then matters would come to a head.

Free indirect speech is commonly used to describe "interior monologue" in fiction (cf. LEECH 1971 : 104) and 29(b) should be best understood as originally including a higher predicate such as (he) thought that ... which has been deleted. It should be noted that no conditionality is implied here, a fact which supports the view of this would as an epistemic form (cf. §4.3.3.1(d)).

(iii) "Future-in-the-past"

In this use too, no conditionality is implied, but this would cannot strictly be regarded as epistemic as it is not really a modal at all but a marker of a particular type of time-orientation, i.e. a past event seen as a future event from the point of view of a still earlier past orientation, as in

- 30 (a) Three days later the Archduke would be assassinated and the countdown to war would begin.

The primary orientation here is deictic ("speaker-now") and the predications following would are clearly factive and so this is not a modal use of would.

### 5.3.1.2 SHOULD

In nearly all its uses, whether "modal" in the narrow sense (i.e. expressing "necessity" or "possibility") or not, should expresses non-conditional remoteness.

Should relates to must and will as the lowest of the three modals on both a scale of likelihood (epistemic, cf. 4(a) in §5.2.1.2(a)) and a scale of imperativeness (deontic, cf. 5(a) in §5.2.1.2(b)). It exhibits a greater degree of qualification of the "necessity" modality and may be regarded as the "remote" equivalent of must and will in much the same way

as might and could relate to may and can (cf. §4.3.2 and §4.3.2.1).

The remoteness of should accounts for two important characteristics of this modal:

Firstly, while the realisation of the content of the process with a non-remote necessity modality is normally seen as assured (epistemic) or unavoidable (deontic), with should this is not so, as shown by the acceptability of the should options in 31(a) and (b):

31 (a) He  $\left\{ \begin{array}{l} *will \\ *must \\ \underline{should} \end{array} \right\}$  still have that book, although he might already have returned it to the library.

(b) Jack  $\left\{ \begin{array}{l} *will \\ *must \\ \underline{should} \end{array} \right\}$  take Jill home immediately, but he's not going to do so.

Secondly, deontic should and should have may take contrafactive complements, as in 31(c) and (d):

31 (c) I should be at the committee meeting now instead of chatting to you.

(d) Paul should have started work yesterday.

As was noted earlier (cf. §4.3.2.2), only modality markers containing the feature [+rem] may take contrafactive complements and so should must be regarded as such a marker. The remoteness here cannot be conditional, as shown by the unacceptability of

31 (e) \*If Jack were here he should take Jill home.

In practically all circumstances where should expresses remote necessity it may be replaced by the non-"classical" auxiliary ought to without change of meaning.

The meanings of should will be discussed under the following headings:

- (a) remote deontic necessity;
- (b) remote epistemic necessity; and

(c) other meanings.

### 5.3.1.2(a) Remote deontic necessity

As noted, the obligation expressed by deontic should is weaker than that expressed by must and will. With should, whoever is the goal of the modality is left the option of carrying out the content of the process or not - what is predicated here is not unavoidable (cf. 31(b)) and can even be contrafactive (cf. 31(c) and (d)).

Another dimension to the relative weakness of deontic should relates to the fact that, as with have to (cf. § 5.2.1.2(b) and also behoort (cf. § 5.2.2.1(a)), the source of the modality is never normally the speaker, although it may be Agentive (cf. 32(a)) or Instrumental (cf. 32(b)).

32 (a) You should repair that headlight.

(b) In order to get there on time we should leave now.

Thus, while

32 (c) You must repair that headlight

could be interpreted as having the speaker as deontic source, being broadly synonymous with

32 (d) I want you to repair that headlight,

this cannot be the case in 32(a). Here the speaker is not making a direct request but may be said rather to be referring his addressee to the existence of some kind of obligation. It should be noted here that, as with behoort, when a speaker uses (Agentive or Instrumental) deontic should, speaker identification is signalled (cf. LAKOFF 1972 : 240). This contrasts with e.g. be supposed to (cf. 32(e) and (f)) where this implication need not hold, as indicated by the unacceptability of should in 32(e) and (f).

32 (e) You  $\left\{ \begin{array}{l} *should \\ \underline{are\ supposed\ to} \end{array} \right\}$  repair that headlight which, I think, is most unfair.

(f) We  $\left\{ \begin{array}{l} *should \\ \underline{are\ supposed\ to} \end{array} \right\}$  leave now in order to get there on time but I don't think we'll take so long to make the trip.

Alternative modality markers for deontic should include be expected to and ought to and the semantic representation of this sense of the modal is given in fig. 15(a).

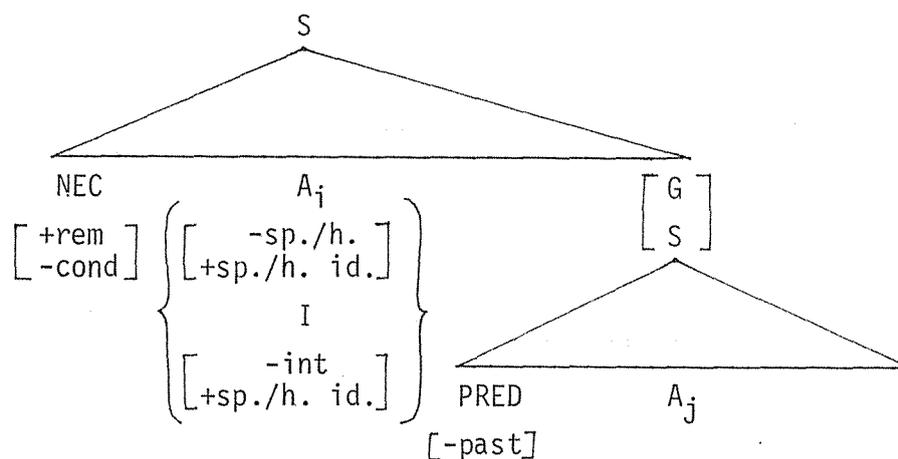


fig. 15(a)

(i) Remote deontic necessity with remote process

As in the case of the oblique forms of the other modal auxiliaries, when non-epistemic should combines with auxiliary have both modality and process are remote and so the surface clause is contrafactive, as in

33 (a) Paul should have started work { tomorrow / yesterday }.

As should have is the only modal auxiliary construction which can signal non-realised deontic necessity (must has no oblique form and must have, as we have seen, is epistemic) the difference between must and should here with respect to deontic source is neutralised and so with should have the deontic source may be the speaker, as in 33(b), which can parallel 33(c).

33 (b) You should have started work here yesterday.

(c) I wanted you to start work here yesterday.

The source Agent here then should be unspecified as to [+sp./h.] v. [-sp./h.] although speaker/hearer identification remains. Alternative modality markers include wanted/expected to, was/were expected to, and ought to have. The semantic representation of should with remote

should with remote process differs then from that for should with non-remote process, as in fig. 15(a), and is given in fig. 15(b).

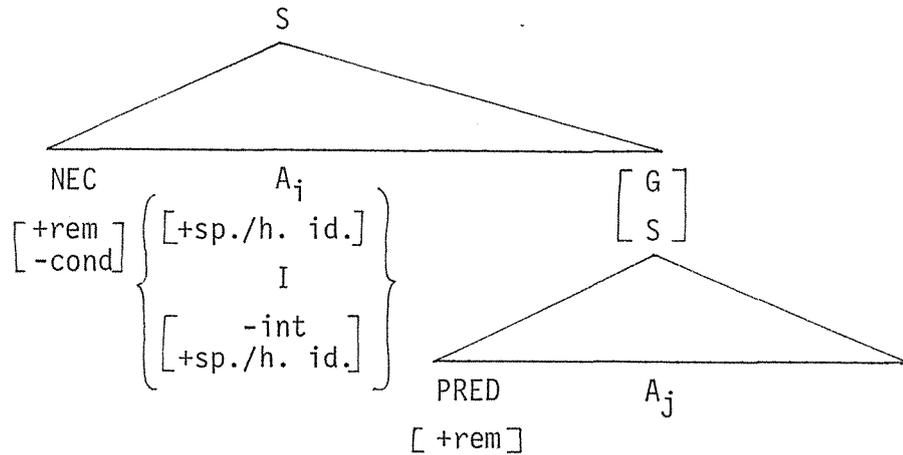


fig. 15(b)

#### 5.3.1.2(b) Remote epistemic necessity

The use of epistemic should expresses a lower degree of confidence on the part of the speaker as to the likelihood of the truth of the relevant proposition than is the case with must and will. The circumstances which the speaker has taken into account point to the truth of the proposition, but he does not have sufficient knowledge to be able to commit himself to this truth and so he hedges with should. Should might be said to signal "high probability" rather than the "near certainty" of must and stronger will.

Like will, should is used freely with both future and present processes and in the combination should have it takes past processes, as is usual with the epistemic senses of the modal auxiliaries. Thus if 31(b), repeated here,

31 (b) Paul should have started work yesterday

is interpreted epistemically, it expresses present judgement about a past event, paraphrasable by e.g.

34 (a) It is probable that Paul started work yesterday

and it is not contrafactive. The modality is present ("speaker-now", as

is normal with epistemic modals) and have signals the past process.

The semantic structure of epistemic should is represented as in fig. 15(c).

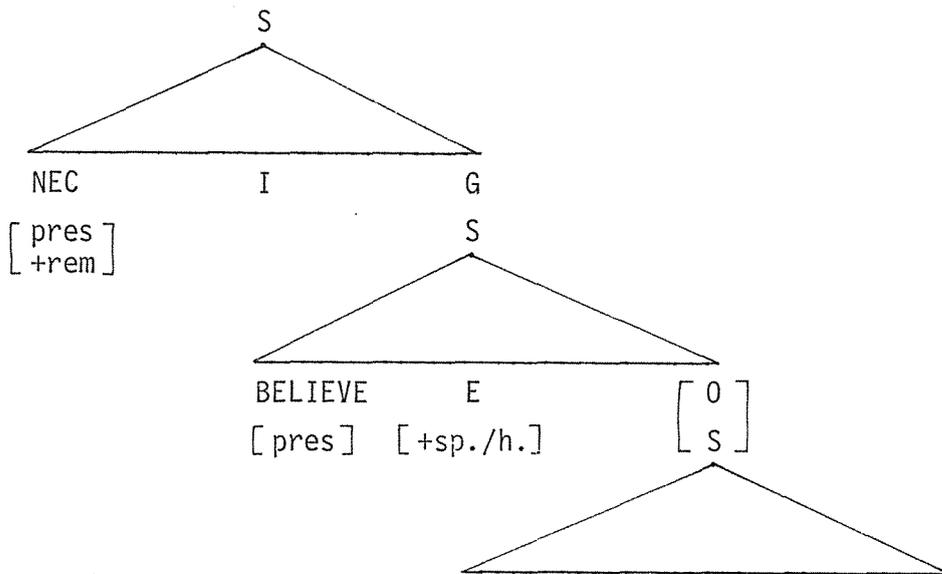


fig. 15(c)

Alternative modality markers here include make it likely/probable that, it is likely/probable that, probably and ought to.

#### 5.3.1.2(c) Other meanings

##### (i) Remoteness (non-conditional)

In certain circumstances should does no more than act as a marker of (non-conditional) remoteness, expressing doubt on the part of the speaker. In 35(a) and (b) for example, should plays essentially the same role as the past tense form of the main verb in 35(c):

- 35 (a) If Fred should arrive at the last moment, we'd be able to put him up.  
 (b) Should Fred arrive at the last moment, we'd be able to put him up.  
 (c) If Fred arrived at the last moment, we'd be able to put him up.

This should is not "modal" in the narrow sense: it expresses neither epistemic nor non-epistemic necessity, although it might appear to be

related to the former. However, it is normally found in "if"-clauses, which rarely contain epistemic modal auxiliaries, it cannot be replaced by ought to here, and it is not usually found with auxiliary have (cf. 35(d)):

- 35 (d) If Fred { ??should have arrived } at the last moment, we  
                   { had arrived }  
                   would have been able to put him up.

Moreover, in this sense should represents the only instance of a modal auxiliary which can appear in clause-initial position in non-interrogative constructions (cf. 35(b)) and it would appear then that what we have here is a largely idiosyncratic use of this modal, linked semantically to the other "oblique" modal auxiliaries by the feature [+rem]. In semantic structure this should derives from the features  $\left[ \begin{array}{l} +\text{rem} \\ -\text{cond} \end{array} \right]$  on the relevant predicate.

A use of should which is probably related to the one just mentioned is exemplified in 35 (e), (f) and (g):

- 35 (e) It's amazing that her children should be so fair-skinned.  
 (f) I was strolling along Poggenpoel St. yesterday when who  
       should I see but old Lofty.  
 (g) It's great that the weather should have turned out so well.

Although the relevant predications here are factive, should (have) is used to express surprise that this is so. The cognitive meaning of these sentences would not be altered if they appeared without this auxiliary and although the expression of remoteness, in a certain sense, may be relevant here (the use of should here may be said to connote the speaker's surprise at the factivity of the predication), an account of the employment of this should probably belongs to stylistic rather than semantic analysis. It should be noted that this is the only use of should (without auxiliary have) in which it co-occurs with a complement that is deep-tense past (cf. 35(f)).

(ii) Remote conditionality

With first-person subjects, should can be used to express the conditional type of remoteness, thus acting as an alternative to remote

conditionality, would (cf. § 5.3.1.1(c)) in the same way that shall may replace will (cf. § 5.2.1.3). This is typical of British English, but even in "educated" South African English would is normally used with all persons and should here is rare:

36 (a) If Pete came in tomorrow I { ?should / would } be very happy.

### 5.3.2 Oblique forms: Afrikaans

Unlike the case in English, which lacks an oblique form of must, there are no paradigm gaps in the set of Afrikaans auxiliaries expressing the "necessity" modality. The oblique forms are moes, wou and sou.

#### 5.3.2.1 MOES

Moes expresses (a) past deontic necessity;  
 (b) remote deontic necessity with remote process; and  
 (c) epistemic necessity.

##### 5.3.2.1(a) Past deontic necessity

Here both modality and process are past. The deontic source may be Agentive (cf. 37(a)) or Instrumental (cf. 37(b)) and the Agentive source may or may not be the speaker (cf. 37(a) and its possible paraphrases in 37(c)).

- 37 (a) Hy moes dadelik verlof neem.  
 (b) Om betyds daar aante kom moes ons baie vroeg ry.  
 (c) { Ek / Die majoor } wou hê dat hy dadelik verlof neem.

Unlike its non-oblique counterpart (cf. 10(b) above), 37(b) is essentially a reporting utterance only which has no application in a "hortative" sense, and so the notion of speaker/hearer identity is not really applicable here. As the modality source is Instrumental here, moes in 37(b) would probably be best described as expressing extrinsic Agentive necessity (i.e. no "deontic intent") but the distinctions here are very fine. Alternative modality markers are consistent with those given for deontic moet (cf. § 5.2.2.1(a)), except that past forms are required. Predictably, wou ... hê is restricted to the expression of the Agentive modality and

het ... nodig gemaak dat/vir to the Instrumental modality.

The semantic representation of this sense of moes is given in fig. 16(a):

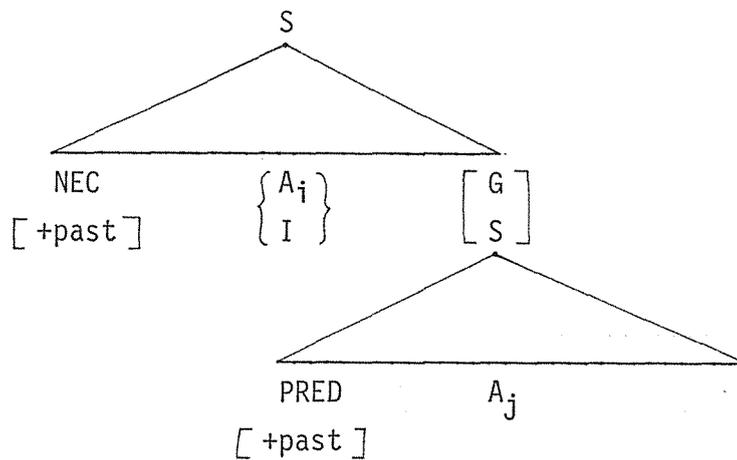


fig. 16(a)

#### 5.3.2.1(b) Remote deontic necessity with remote process

Non-epistemic moes never signals remote modality with a non-remote process, the latter being normally expressed by behoort te (cf. § 5.2.2.1(a)) with the infinitive form of the verb. The combination moes ge-... het can express remote deontic necessity, both Agentive and Instrumental, with remote process, as in 38(a) and (b) respectively (here too, the Instrumental variant might be interpreted as extrinsic Agentive rather than deontic as speaker/hearer identification is not necessarily signalled):

38 (a) As ons vir hulle môre moes gehelp het, sou hulle vir ons gesê het.

(b) As ons so vroeg moes gery het om betyds daar aan te kom sou dit nie die moeite werd gewees het nie.

Contrafactive meaning is expressed in each case.

Apart from its use in non-conditional contexts such as 38(a), moes, when combined with ge-... het, can also express remote conditionality, as in

38 (c) As Piet dit nie reeds gedoen het nie, dan moes jy vir hulle gehelp het.

This use is relatively rare however, sou being normally used here to mark the remote conditionality, as in

38 (d) As Piet dit nie reeds gedoen het nie, sou jy vir hulle moes gehelp het.

The semantic representation of deontic moes + ge-... het is given in fig. 16(b).

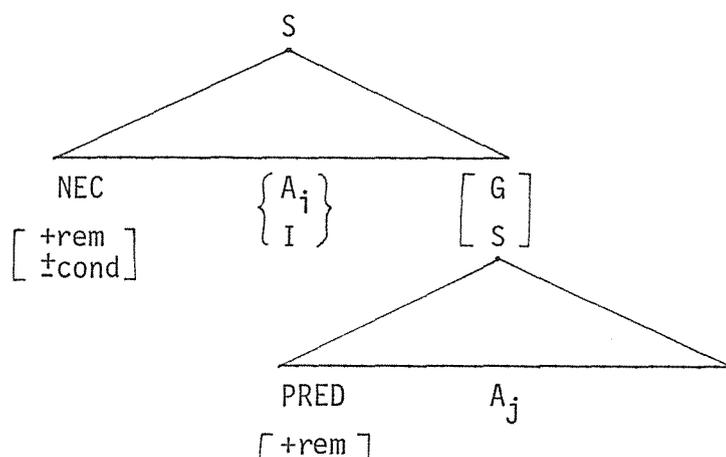


fig. 16(b)

### 5.3.2.1(c) Epistemic necessity

As was argued in the case of epistemic kon as opposed to kan (cf. §4.3.4.1(c)), epistemic moes and moet are to a large extent in complementary distribution and cannot strictly speaking be distinguished in terms of the remote v. non-remote distinction. Moet may be used to express epistemic modality when the process is non-past while moes cannot usually do so:

39 (a) Die President  $\left\{ \begin{array}{l} *moes \\ moet \end{array} \right\}$  nou in Pretoria wees.

On the other hand, moes ge-... het is regularly used when the process is past while moet ge-... het is rarely found:

39 (b) Die President  $\left\{ \begin{array}{l} ?moet \\ moes \end{array} \right\}$  gister in Pretoria gewees het.

There would appear then to be no systematic contrast in the modality

expressed by moet and moes - in both cases it is present necessity - but, as in the case of kon, moes takes a past process. The semantic representation of epistemic moes is given in fig. 16(c).

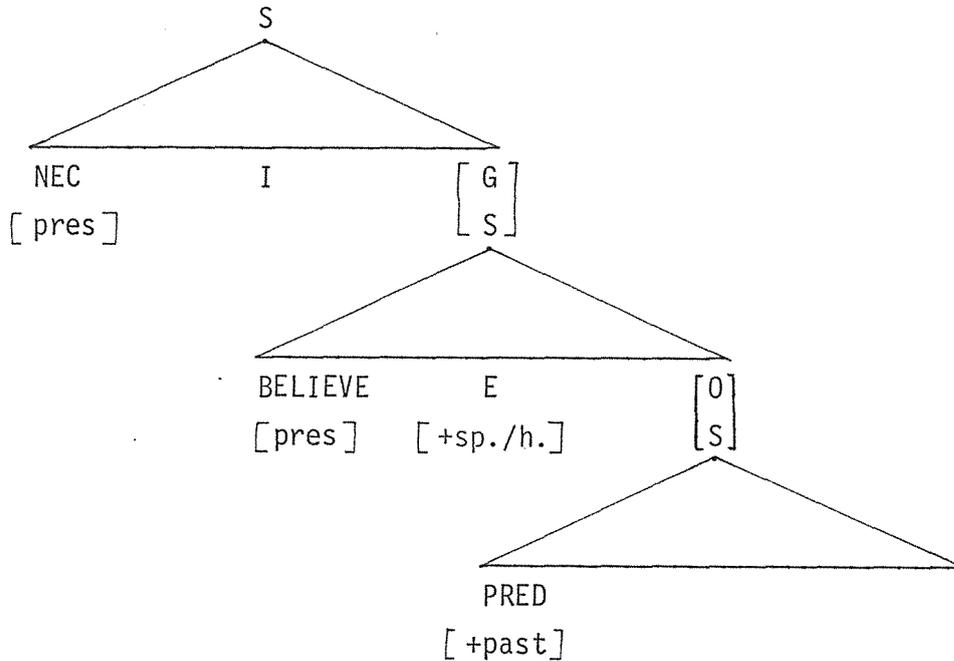


fig. 16(c)

Alternative modality markers are as for epistemic moet (cf. § 5.2.2.1(b)).

As noted earlier (cf. § 5.2.2.1(b)), remote epistemic necessity is signalled by behoort te.

#### 5.3.2.2 WOU

Wou expresses: (a) past volitional necessity; and  
(b) remote volitional necessity.

##### 5.3.2.2(a) Past volitional necessity

Wil and wou may be described as the least "modal" of all the Afrikaans modal auxiliaries in that they express neither epistemic nor deontic necessity in the strict sense, but only volitional necessity, which, as has been noted (cf. § 5.2.1.2(c)), is a type of deontic modality. The fact that epistemic necessity is never signalled, reducing the range of potential ambiguities here, probably accounts for the acceptability of both the

infinitive and the ge-... het forms in 40(a)-(b), which are here semantically equivalent.

- 40 (a) Hy wou gister die satire koop.  
 (b) Hy wou gister die satire gekoop het.

As has been shown, the oblique forms of the other modal auxiliaries signal past modality or remote non-epistemic modality when combined with infinitives and epistemic modality or remote non-epistemic modality with remote process when combined with ge-... het forms. As wou + ge-... het cannot signal epistemic modality and as remote modality with remote process is often signalled only in particular environments (protasis and apodosis of conditionals and syntactically independent structures which imply a suppressed condition or conditions) this combination does not give rise to potential ambiguity in contexts such as 40(b) and so it may also be used to express past volitional necessity without contrafactivity (40(b) is non-factive).

Strong volition in the past may also be expressed by wōu in combination with the infinitive or the ge-... het form:

- 40 (c) Jy wōu mos die satire koop - nou gaan jy beboet word.  
 (d) Jy wōu mos die satire gekoop het - nou gaan jy beboet word.

An alternative modality marker here would be het daarop aangedring.

The semantic representation of the two variants of wou may be given as in fig. 17(a) (cf. fig. 12(a), p. 142).

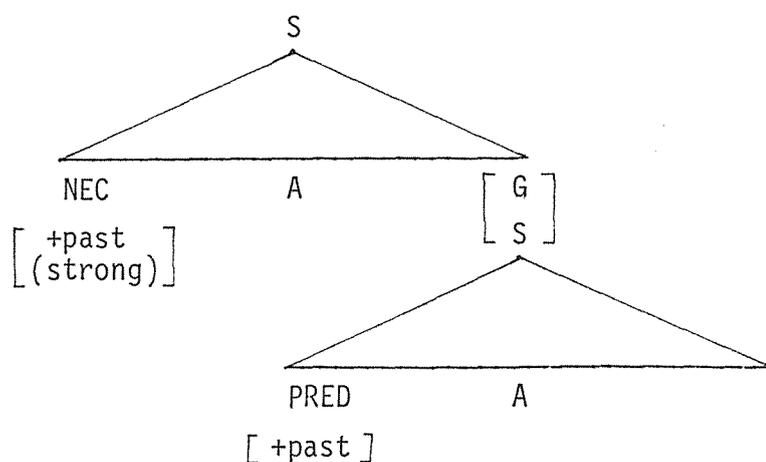


fig. 17(a)

5.3.2.2(b) Remote volitional necessity

It has been noted that the use of oblique forms of the modal auxiliaries in Afrikaans in combination with verbs in the infinitive to express remoteness is rare, the non-oblique forms being regularly used where in English an oblique form would be employed to signal the remoteness, cf. 41(a) and (b).

41 (a) If you wanted to buy that satire, I'd get it for you.

(b) As jy daardie satire {  $\frac{?wou}{wil}$  } koop, {  $\frac{?sou}{sal}$  } ek dit vir jou kry.

To the extent that wou is used in this way however, it may be said to express greater remoteness than wil, the speaker here being less sure of the existence of volition on the part of the subject.

The "polite" use of the oblique form in questions, as in

41 (c) Wou jy iets daaroor sê? (R.)

which does not really signify past volition, exemplifies another application of the semantic notion of "remoteness". Remote wou is probably most frequently found in and is most acceptable in this "politeness" context.

Remote volitional wou is always non-conditional, the conditional variant of remote volitional necessity being expressed by the combination sou ... wou:

41 (d) \*As hy dit gesien het, wou hy dit koop.

(e) As hy dit gesien het, sou hy dit wou koop.

Constructions with sou ... wou are also used as markers of politeness, the degree of politeness expressed here being perhaps even greater than is the case with wou alone, which in its turn is more polite than the more direct wil (cf. 41(f) and (g)):

41 (f) Daarnaas sou ek graag wou beklemtoon ... (R.)

(g) Daarnaas {  $\frac{wou}{wil}$  } ek graag beklemtoon ...

(i) Remote volitional necessity with remote process

When wou combines with ge-... het forms in conditionals both modality and process are remote, as in

42 (a) As jy daardie satire wou gekoop het, sou ek dit vir jou gekry het.

Both protasis and apodosis here would normally be interpreted contractively.

Here too, only non-conditional modality is signalled, sou ... wou + ge-... het signalling the conditional variant:

42 (b) \*As hy dit sou gesien het, wou hy dit gekoop het.

(c) As hy dit sou gesien het, sou hy dit wou gekoop het.

The semantic representation of remote volitional wou is given in fig. 17(b). It should be noted that strong volitional ("insistence") wou is only past and not remote.

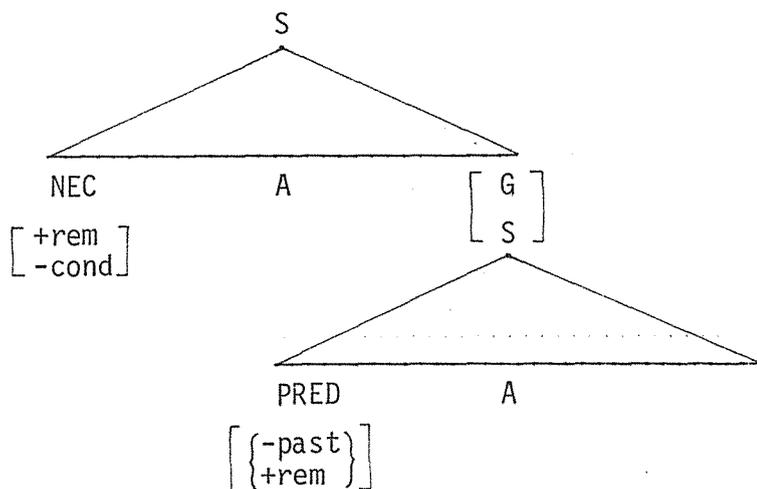


fig. 17(b)

5.3.2.3 SOU

We discuss the meanings of sou under the following headings:

- (a) past non-epistemic necessity;
- (b) remote non-epistemic necessity; and
- (c) other meanings.

5.3.2.3(a) Past non-epistemic necessity

Sou reflects past modality for all the non-epistemic senses of sal except deontic necessity (cf. the similar relation between would and will noted in §5.3.1.1(a)), past deontic necessity being signalled, as we have seen, by moes.

Fig. 18(a) is a composite semantic representation of all the past non-epistemic senses of sou and is identical to that given for corresponding would in fig. 14(a) (p. 149).

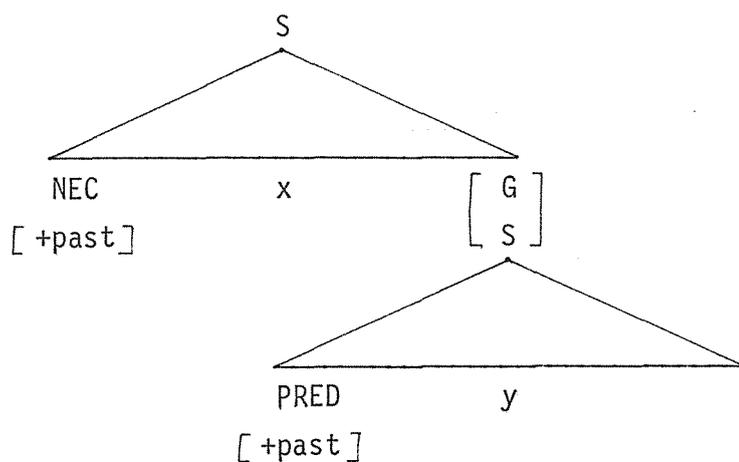


fig. 18(a)

The meanings of sou here are then essentially equivalent to those of would and so we will deal with them very briefly.

(i) Past volitional necessity

It was noted earlier that with first-person subjects, sal could express strong volition. Sou, however, never expresses this modality and so

differs in this way from would, which can express strong volition in the past. The modality in 43(a) is weak volition, a stressed form of sou not being acceptable here as the resulting utterance does not appear to be susceptible to any meaningful interpretation:

43 (a) Toe ek jonk was  $\left\{ \begin{array}{c} *s\acute{o}u \\ \underline{sou} \end{array} \right\}$  ek vir hulle sing.

This past volitional sense of sou is relatively rare, either was gewillig om te or simply het ... ge-... being normally used in such contexts, depending on whether the willingness of the Agent or the realisation of the event is in stronger focus. Unlike the modality marker was gewillig om te, sou here (like corresponding would) is always also associated with a habitual meaning and does not refer to a single action in the past.

The semantic representation of past volitional sou is as given in fig. 18(a) but with the following modifications (cf. also fig. 13(a), p.147, for this sense of sal):  $x = A_i$ ;  $y = A_i$ ; and NEC takes the extra volitional feature [weak].

(ii) Past intrinsic Agentive necessity

Here the focus is on habit rather than willingness, as in

44 (a) Toe hy jonk was sou hy elke aand na die TV kyk.

An alternative modality marker here would be was geneig om te.

The semantic representation of this sense of sou is as given in fig. 18(a), but with the following modifications (cf. also fig. 10(d), p.132, for sal):  $x = I$ ; and  $y = A$ .  
[+int]

(iii) Past intrinsic non-Agentive necessity

As in the case of would, the focus on past time here practically excludes the use of sou in the expression of "universal truths":

45 (a) ??In die ou dae sou olie op water dryf.

The use of this sou, exemplified in 45(b) (Instrumental) and 45(c) (Objective), is relatively rare, as essentially the same meaning can be conveyed by past (ge-... het) forms alone when combined with adverbial specifiers which are compatible with the meaning of repeated action in the past.

- 45 (b) In daardie dae sou die winde dikwels ons dakke afwaai.  
 (c) Elke jaar sou die jakarandas bloei.

The semantic representation of sou here is as given in fig. 18(a) but with the following modifications (cf. also fig. 10(e), p. 133 for sa1):

$$x = \begin{matrix} I \\ [+int] \end{matrix} ; y = \begin{matrix} \{ I \} \\ 0 \end{matrix} .$$

#### 5.3.2.3(b) Remote non-epistemic necessity

When the necessity modality expressed by sou does not relate to past time it is remote, i.e. it is "toned down" in various ways, depending on the nature of the modality, cf.: "Die mees basiese trek is 'verswakking' van die teenwoordige werklikheid. Daardeur kry die aanduiding van wil, voorneme, versekering, noodsaaklikheid, toekoms en al die ander skakerings van sa1, self 'n implikasie van onsekere, onvervulde voorneme deur die imperfek sou" (DE VILLIERS 1968 : 91).

The composite semantic representation of the remote non-epistemic necessity meanings of sou are given in fig. 18(b), which is identical to that given for corresponding would in fig. 14(b) (p. 152).

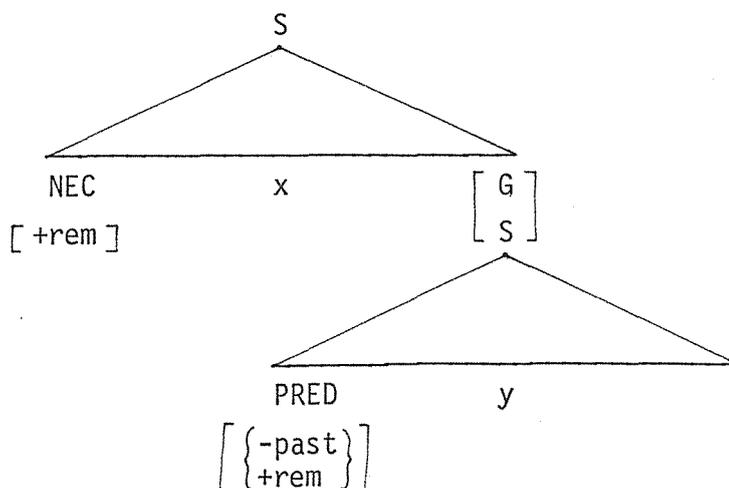


fig. 18(b)

As in the case of sal, these uses of sou are characterised by a strong epistemic (i.e. predictive) undertone, but we concentrate here on the possible meanings of sou over and above this common undertone.

(i) Remote volitional necessity

Both conditional and non-conditional variants of "remote" willingness may be expressed by sou, as in 46(a) and (b) respectively:

46 (a) As hulle my sou vra, sou ek vir hulle sing.

(b) As ek vir hulle sou sing, sou hulle dit hopelik geniet.

In both cases an alternative modality markers would be sou gewillig wees om te, although this interpretation of sou would be more regularly found in conditional than in non-conditional environments. As in the case of would, it may be argued that the use of sou in polite requests (e.g. 46(c)) derives from the conditional volitional sense.

46 (c) Sou u asseblief vir ons sing?

This use is relatively rare in Afrikaans however, and sal appears to be more regular, even in rather formal registers such as those found in the S.A.B.C. corpus of Frekwensiebepaling ....

The semantic representation of the remote volitional sense of sou is as given in fig. 18(b) but with the following modifications (cf. also fig. 10(c), p. 130 for sal):  $x = A_i$ ;  $y = A_i$ ; and NEC takes the volitional feature [weak].

(ii) Remote intrinsic Agentive necessity

Only a conditional variant of this modality may be signalled by sou, as in

47 (a) As hy 'n stel in die hande sou kry, sou hy elke aand na die TV kyk.

An alternative modality marker here would be sou geneig wees om te. The semantic representation of this sou is as in fig. 18(b), modified

as follows (cf. fig. 10(d), p. 132 for sal):  $x = I$  ;  $y = A$ ;  
[+int]

and NEC is always [+cond].

(iii) Remote intrinsic non-Agentive necessity

Here too, only the conditional variant is possible, as in

- 48 (a) Die winde sou ons dakke afwaai as ons nie mooi bou nie.  
(b) As dit daar gereën het sou die jakarandas bloei.

Generally speaking, sal would be preferred here, but where sou does appear it signals remoteness. The semantic representation of this type of "characteristic" modality is as in fig. 18(b), modified as follows (cf. fig 10(e), p. 133 for sal):  $x = I$  ;  $y = \begin{Bmatrix} I \\ 0 \end{Bmatrix}$ ;  
[+int]

and NEC is always specified as [+cond].

The extent to which the focus here is on some characteristic of the subject is minimal and the fact that there are no really suitable alternative modality markers makes it even more difficult to distinguish a meaning here which is additional to the basic (conditional) predictive meaning which in this context is manifested as what we have called remote conditionality.

(iv) Remote non-epistemic necessity with remote process

When non-epistemic sou combines with ge-... het both process and modality are remote and the relevant surface clause is contrafactive, as in:

- 49 (a) As hulle my gevra het, sou ek vir hulle gesing het.  
(b) As ek vir hulle sou gesing het, sou hulle dit hopelik geniet het.  
(c) As hy 'n stel in die hande gekry het, sou hy elke aan na die TV gekyk het.  
(d) Die winde sou ons dakke afgewaai het as ons nie mooi gebou het nie.

Typical alternative modality markers include sou gewillig gewees het

(cf. 49(a) and (b)) and sou geneig gewees het (cf. 49(c)).

### 5.3.2.3(c) Other meanings

#### (i) Remote conditionality

As in the case of would, sou sometimes acts as a marker of remote conditionality rather than as a marker of modality in the restricted sense (cf. §4.3.3.1(b) and §5.3.1.1(c)). Examples of this use of sou appear above in the apodosis of 46(b), i.e. ...sou hulle dit hopelik geniet, and together with modality markers in sou gewillig/geneig (ge)wees (het) om te .... In this sense the "necessity" meanings identified as volition, habit or characteristic are not present, and sou derives from the features  $\left[ \begin{array}{l} +rem \\ +cond \end{array} \right]$  on the relevant predicate.

The use of sou as a politeness marker, as in

50 (a) Daarnaas sou ek graag wou beklemtoon ... (R.)

may be said to derive from this remote conditionality sense.

#### (ii) Remoteness (non-conditional)

Sou differs from would and shares a semantic property with should in that it can act as a marker of non-conditional remoteness (cf.

§ 5.3.1.2(c)). A typical example of this sou which has already been given is found in the protasis of 46(a), i.e. as hulle my sou vra ...

Even the derived "surprise" sense of should occasionally has its counterpart in sou, as in

51 (a) Dis snaaks dat haar kinders so lig van vel sou wees.  
(cf. 35(e)).

Non-conditional remoteness sou derives from the features  $\left[ \begin{array}{l} +rem \\ -cond \end{array} \right]$  on the relevant predicate.

(iii) "Future-in-the past"

Like would, sou can be used to mark that type of time-orientation where a past event is seen as a future event from the point of view of an earlier past orientation, as in

52 (a) Drie dae later sou die Aartshertog vermoor word en oorlog sou daarna ontketen word (cf. 30(a)).

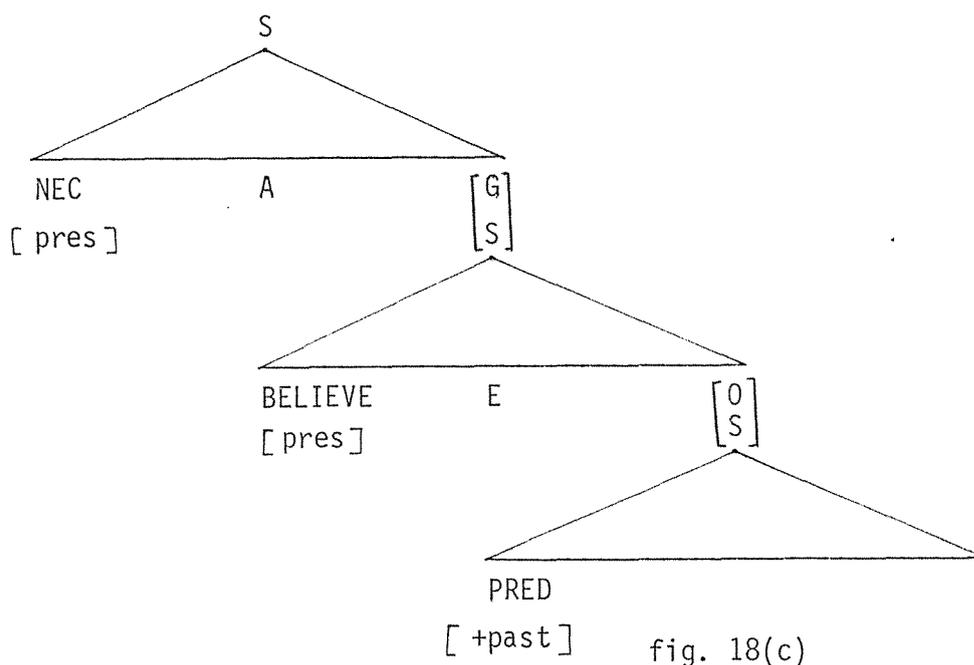
From the point of view of the speaker the predications relating to sou in both cases are factive and so this sense is non-modal.

(iv) Quasi-epistemic necessity

The type of modality exemplified by sou in

53 (a) Volgens Piet sou Karel sy vriende in die steek gelaat het

is here called quasi-epistemic necessity. The question of belief or judgement is relevant here, but (cf. CALBERT 1975 : 32) unlike normal epistemic modalities: (a) it is not the speaker's belief that is being expressed; and (b) the epistemic modality source here is not a set of circumstances which may be regarded as having Instrumental function but rather an Agent. The speaker may be said, in effect, to be reporting the fact that an Agent wants people to believe a certain proposition, and the semantic representation of this sou may be given accordingly as in fig. 18(c).



An alternative modality marker here is wil ... hê, as in

53 (b) Piet wil hê dat Karel sy vriende in die steek  
gelaat het.

The "necessity" expressed, then, would appear not to be remote, although a certain remoteness characterises this sou as a whole and derives from the fact that the speaker is not usually reporting his own belief here - he distances himself from the proposition expressed to a certain extent (E is unmarked as to the + v. -sp./h. distinction).

This sou always appears in construction with ge-... het forms, the process being always past. As in the case of the normal epistemic senses of the modal auxiliaries the combination of oblique auxiliary and ge-... het form of the verb gives rise to a non-factive rather than a contra-factive context.

Other modality markers here include daar word beweer/gesê/dat ... and constructions containing the modal adverb glo, and the nearest English equivalents are be supposed to and be said to.

## CHAPTER 6

CONCLUSION

- 6.1 A note on negation.
  - 6.1.1 Negative forms of the "possibility" modal auxiliaries.
  - 6.1.2 Negative forms of the "necessity" modal auxiliaries.
  
- 6.2 Contrastive statement.
  - 6.2.1 General remarks.
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  - 6.2.2 The "possibility" modal auxiliaries.
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## CONCLUSION

Before summarising the main points of similarity and of contrast - as described in this study - in the semantics of the Afrikaans and the English modal auxiliaries, we must very briefly consider the question of the negative forms of these auxiliaries and their various meanings.

6.1 A note on negation

As Leech, for example, notes, the apparently complex nature of form-meaning relations in the case of negative forms of the English modal auxiliaries can cause learning difficulties: "The complicated semantics of negative forms may not, cannot etc. is all too familiar a problem for teachers and students of English as a foreign language, who have to face such apparent anomalies as the very different status of must not and don't have to as negations of must and have to" (1969 : 229).

Although this remark is no doubt generally valid and points to the need for a systematic description of these relations, it will be seen that if the languages under consideration are English and Afrikaans the problems arising are likely to be relatively minor, as there is a considerable degree of parallelism between these two languages in this particular area.

In both English and Afrikaans, constructions containing modal auxiliaries and negative particles can express two types of negation, i.e. either of the modality itself ("modal negation" or "external negation", as exemplified by needn't (don't have to) and hoef nie) or of the process ("process negation" or "internal negation", as exemplified by mustn't and moenie). Given our account of modality as a "higher" abstract predicate (cf. CALBERT 1975 : 8) in semantic representation, comparable with a type of modal operator (cf. § 3.3.2.1), this distinction can be explained in terms of differences in semantic scope relations, such that in the case of modal negation (e.g. needn't, not necessary) the modal predicate falls within the scope of the negative operator, while with process negation (e.g. mustn't, necessary ... not) the negative operator has only the (unmodalised) process within its scope and itself falls within the scope of the modal predicate or "operator".

Given below are sample semantic representations reflecting modal negation (fig. 19(a)(i) - non-epistemic, and fig. 19(a)(ii) - epistemic) and process negation (fig. 19(b)(i) - non-epistemic and fig. 19(b)(ii) - epistemic).

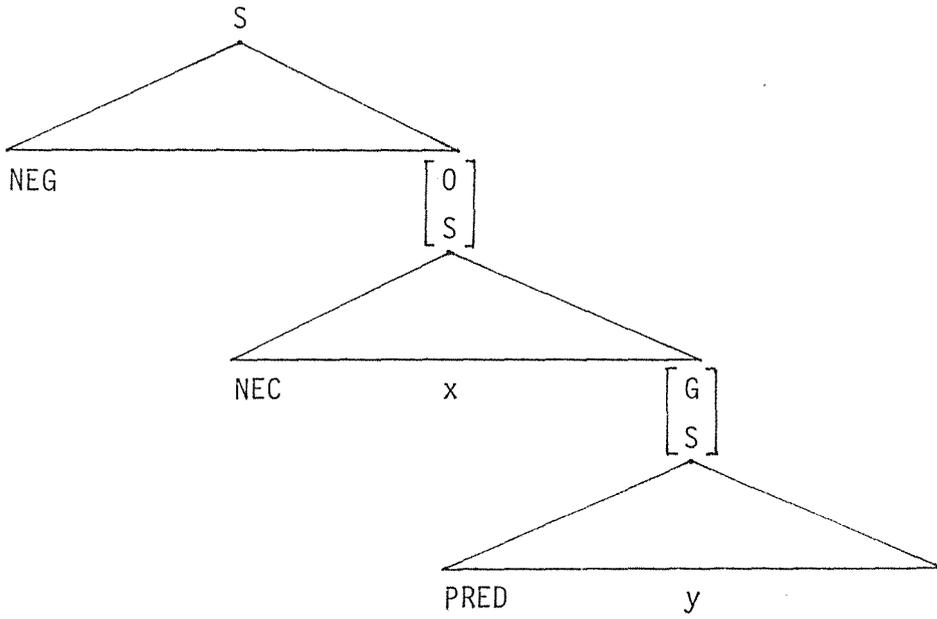


fig. 19(a)(i)

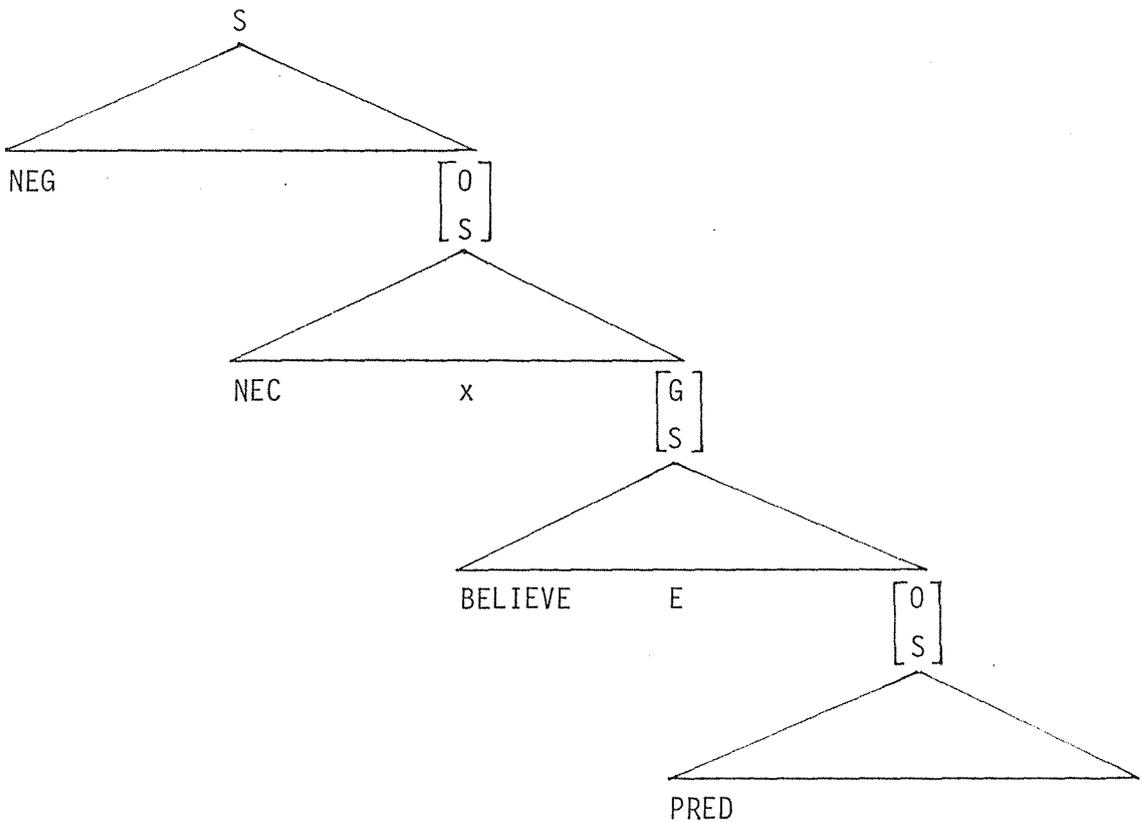


fig. 19(a)(ii)

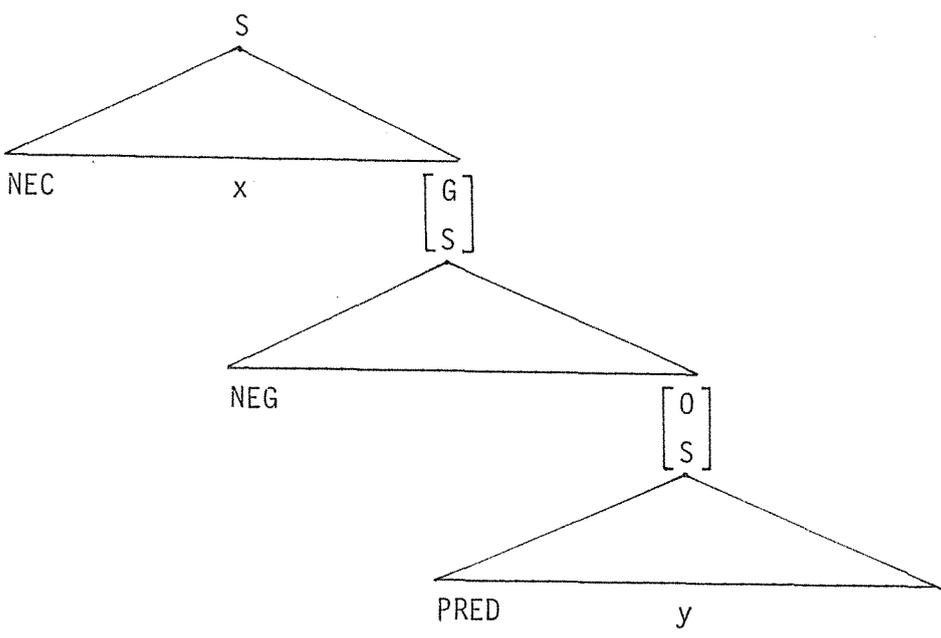


fig. 19(b)(i)

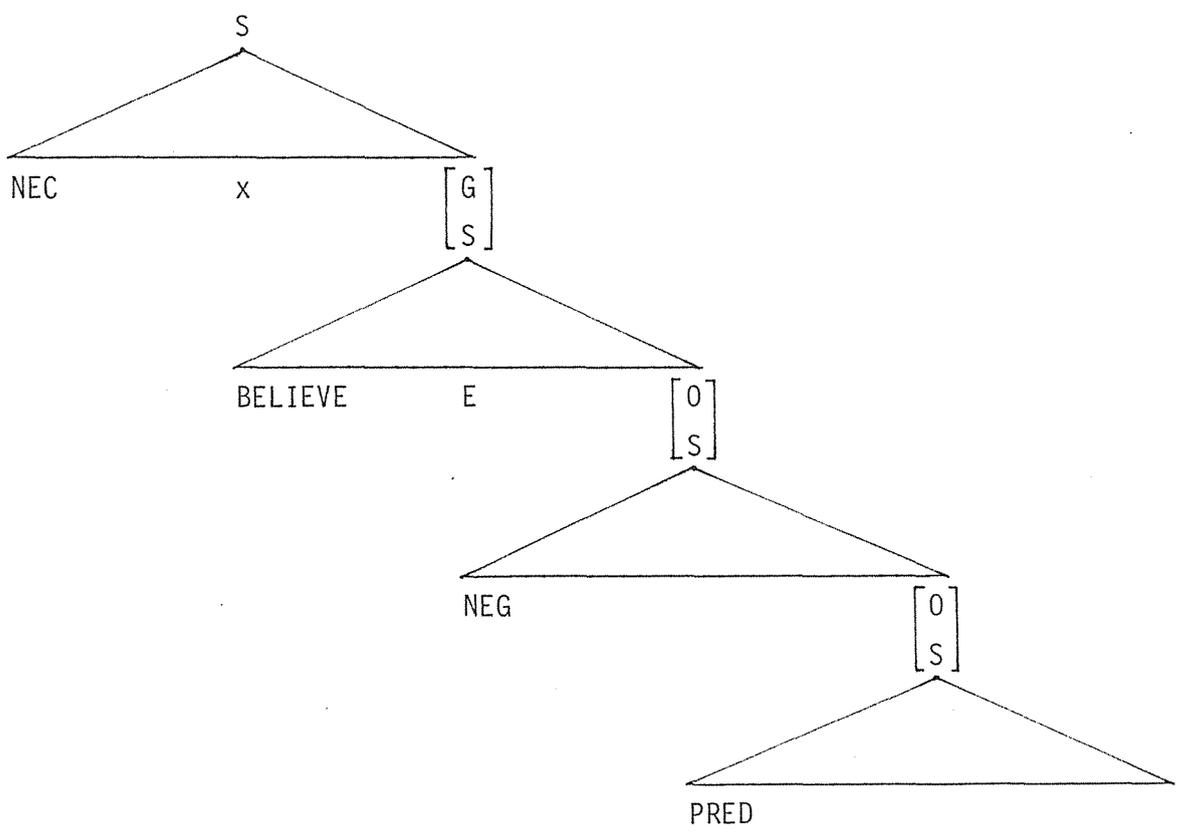


fig. 19(b)(ii)

As seen in these examples, in which NEG is characterised as a one-place predicate taking an Objective sentential argument, NEC may be lower or higher than NEG (we shall here not enter into theoretical arguments relating to the positioning of the predicate BELIEVE relative to NEG in fig. 19(b) (ii) as there appears to be little to choose between e.g. "something makes it necessary for me to believe that ... not" and "something makes it necessary for me not to believe").

Possible glosses in English of the modalities represented in these examples are:

- fig. 19(a)(i) - not necessary that; needn't
- fig. 19(a)(ii) - not necessarily; needn't
- fig. 19(b)(i) - necessary that not; mustn't
- fig. 19(b)(ii) - necessarily not; can't.

The auxiliary verbs used here exemplify rather well the "complexity" referred to above and also the arbitrariness which characterises the form-meaning relations here. Thus while needn't expresses the modal negation of both epistemic and non-epistemic necessity there is no parallel in the case of the process negation: mustn't expresses non-epistemic necessity, while can't, formally related to can and the so-called "possibility" modal auxiliaries, is used for process negation with epistemic necessity. The choice of can't here is not of course completely arbitrary because, as we have noted, NEC and POSS are duals, i.e. certain equivalences hold between negative and positive forms of these predicates such that they may be defined in terms of one another. We repeat here these equivalences, which may be incorporated into our description as meaning postulates (cf. §3.3.2):

- (i) NEC  $\equiv$   $\sim$ POSS  $\sim$
- (ii) NEC  $\sim$   $\equiv$   $\sim$  POSS
- (iii)  $\sim$ NEC  $\equiv$  POSS  $\sim$
- (iv)  $\sim$ NEC  $\sim$   $\equiv$  POSS

Thus it is not strange that can't, which might traditionally be said to express modal negation of some type of possibility (cf. deontic can't v. may not), should also be available for the expression of the process negation necessity (cf. equivalence (ii) above). These equivalences also

underlie the interpretation of double negatives, e.g. can't not (i.e.  $\sim$ POSS $\sim$ ) which is equivalent to must (i.e. NEC).

In table 3 (p. 188) and table 4 (p. 189) below, the positive forms of the modal auxiliaries are used as a starting point, table 3 representing the negation of the "possibility" modals and table 4 the negation of the "necessity" modals. Where a negative form is found which is morphologically related to a positive form of the inverse modality, this form is placed in brackets in the tables, e.g. CAN: CAN'T (MUSTN'T). Generally speaking, these negative forms (e.g. deontic can't and mustn't) may be regarded as cognitively equivalent, as reflected by our meaning postulates, differences between them arising primarily from contextual and pragmatic factors.

The negative forms of all the non-oblique "classical" modal auxiliaries as well as behoort and the oblique form should (and ought to) are given in tables 3 and 4. Where in English a contracted form, e.g. won't is given, the uncontracted form with unstressed not, e.g. will not, may also be found, although the converse does not necessarily apply. The types of negation which the oblique forms express are generally identical to those expressed by the corresponding non-oblique forms, e.g. can't and couldn't both always express modal negation, while epistemic may not and might not always express process negation. In these tables the basic structure of the semantic representation of the various types of modality is presented in "shorthand" form such that in each case the source of the modality, the modal predicate and the goal of the modality are given, as e.g.  $A_i$  POSS  $A_j$  for deontic possibility. A selection from the set of nearly synonymous modality markers is usually supplied for each negative modal auxiliary, primarily in the interests of clarity.

We consider now briefly certain matters relating to the data provided in tables 3 and 4.

#### 6.1.1 Negative forms of the "possibility" modal auxiliaries

Generally speaking, the forms in which the negative particle is stressed represent a rather marked type of process negation, the preferred forms in such cases being those which express directly the modal negation of the inverse form. Thus deontic needn't (also hoef nie) is probably more frequently encountered than can ... nót (kan ... níe), except in contexts

where the speaker wishes to stress a certain contrast, as e.g. in

- 1 (a) You can attend my lectures if you like: you can also nót attend them at all if you so wish.

No process negative form is given for the intrinsic Agentive possibility in either language as this type of modality seems ill-suited to this type of negation: can ... nót and kan ... nīe would not normally be used to express an enduring quality which consists in the negation of some process, as shown by the oddness of 1(b) and (c):

- 1 (b) ??Zukov can nót read a thousand words a minute.  
 (c) ??Karel kan nīe fietsry nie.

To the extent that these sentences are interpretable they would be interpreted as relating to extrinsic rather than intrinsic possibility.

With the non-Agentive modality this type of negation appears to be more acceptable, particularly in the Objective case, as e.g. in

- 1 (d) Diplomatic do's can sometimes nót be boring.  
 (e) Ysskaats kan onder sekere omstandighede nīe pret wees nie.

The acceptability here relates possibly to the fact that, as mentioned earlier, in non-Agentive contexts the distinction between non-epistemic and epistemic modality becomes blurred, there being a less concerted focus on the inherent properties of the subject and a relatively greater emphasis on the speaker's belief or judgement.

As revealed by table 3, in practically all essentials the negative forms of the "possibility" modal auxiliaries in English and Afrikaans are congruent and so there should be few learner problems in this area. The only difference of note here is, predictably (cf. § 4.2.1.1(b)), the absence of a process-negative form can ... nót in the epistemic sense, the can here being outside the scope of negation. In Afrikaans, kan ... nīe and mag ... nīe are both found as instances of process negation of epistemic possibility.

#### 6.1.2 Negative forms of the necessity modal auxiliaries

Once again, as shown in table 4, there is a general parallelism in form-

meaning relations expressed in the two languages.

Process negation of deontic necessity exemplifies a congruence in the modal auxiliary forms in the two languages (mustn't, won't/moet nie, sal nie) while forms which do not have positive modal auxiliary counterparts (needn't, hoef nie) express modal negation. The latter forms are also used to express modal negation in epistemic necessity, and they may be regarded as the modal negation forms of the "remote" forms should, ought to/behoort as well as of must, will/moet, sal. This is predictable, as the remoteness that characterises the modality, like the modality itself, falls within the scope of the negation here, in contrast to the case of process negation, where the remoteness is not negated and shouldn't, oughtn't to/behoort nie are the "remote" negative forms.

In the context of intrinsic Agentive necessity, won't and sal nie are probably best regarded as expressions of modal rather than process negation. Thus, if 2(a) and (b) i.e.

- 2 (a) He won't watch TV all night.  
 (b) Hy sal nie die hele aand sit en TV kyk nie.

are interpreted as expressing this "habitual" sense rather than a purely epistemic sense, preferred paraphrases would be is not inclined to and is nie geneig om rather than is inclined not to and is geneig om nie: one might say that it is a habit that is being denied rather than a kind of "negative habit" that is being asserted. In the latter case the auxiliary forms would be will ('ll) ... nōt and sal ... nie as in e.g.

- 2 (c) He'll nōt watch TV for days and then suddenly you'll find him glued to the set.  
 (d) Hy sal vir weke nie na die TV kyk nie, maar dan sal hy hom soos 'n ware verslaafde gedra.

With respect to intrinsic non-Agentive necessity it would appear that both won't and sal nie can express modal and process negation, as in 2(e)-(f) and 2(g)-(h) respectively:

- 2 (e) Sudso won't remove all kinds of stain.  
 (f) Dīe teensuur sal nie suuropeenhoping vinnig neutraliseer nie.

- (g) Mercury won't float on water.  
 (h) Kwik sal nie op water dryf nie.

Thus while 2(e) and (f) might be said to express the denial of the existence of a certain property (in more theoretical terms, of the transitive-causative modality source), 2(g) and (h) may be interpreted in similar fashion, or - perhaps preferably - as expressing the assertion of a property which has certain negative implications within the context of the sentence.

The position with respect to both weak and strong volition also appears to be essentially the same in both languages. Won't and sal nie express modal negation of weak volition only in certain contexts, cf. e.g. 2(i) v. (j):

- 2 (i) He { \*won't  
is not willing to } go, but if you insist on it, he will.  
 (j) He { won't even  
is not even willing to } help his own father.

Halliday's assertion that auxiliary forms cannot express process negation here, cf. "... there is no verbal modal form equivalent to Jones is willing not to tell" (1970 : 341) is incorrect as both won't and will ('ll) ... nôt are acceptable in this context, as in e.g.

- 2 (k) All right, as you've confided in me, I { won't/'ll not  
am willing not to }  
say anything.

In Afrikaans, as shown in the table, parallel forms are used, i.e. sal nie is sometimes acceptable as expressing modal negation, and sal nie/... nê can express process negation.

In neither language does a modal auxiliary express modal negation of strong volition, but process-negation will not, wôn't and wil/sâl nie are probably more regularly used than their positive counterparts.

In contrast to the fairly clear-cut distinction between the meanings of the modal- v. process-negative forms expressing weak and strong volition, wil nie expresses either type of negation with regard to "intermediate"

volition. This is no doubt partly due to the fact that the meaning distinction is minimal here (cf. the English forms not want to and want to not). The wil ... nīe form is limited to the expression of process negation.

Epistemic will and sal, together with must and moet, have as their modal-negative counterparts the morphologically unrelated forms needn't and hoef nie, won't and sal nie being used only for process negation here. Although formally derived from "possibility"-expressing modal auxiliaries, can't and kan nie may be regarded as the regular process-negative forms of epistemic must and moet. In contrast to won't and sal nie, these negative forms, like must and moet, are not normally interpretable as epistemic where the process is future, cf. e.g.

2 (1) The President  $\left\{ \begin{array}{l} \text{won't} \\ \text{!can't} \\ \text{!must} \end{array} \right\}$  be in Pretoria tomorrow.

(m) Die President  $\left\{ \begin{array}{l} \text{sal nie} \\ \text{!kan nie} \\ \text{!moet} \end{array} \right\}$  mōre in Pretoria wees (nie).

It would appear then that, as analysed within our semantic framework, the English and Afrikaans modal auxiliaries tend to manifest largely parallel form-meaning correlations when either the modality or the relevant process is negated, and so negative forms of the modal auxiliaries are unlikely to cause learning problems in the English v. Afrikaans context over and above those problems relating to the positive forms used in the two languages. It is to these problems that we now briefly return.

MODALITY	MODAL AUXILIARY	MODAL NEGATION: NEG (POSS)	PROCESS NEGATION: POSS (NEG)
<u>Deontic</u> A <sub>i</sub> POSS A <sub>j</sub>	CAN, MAY  KAN, MAG	CAN'T, MAY NOT (MUSTN'T) not allowed/allow .. to  KAN/MAG NIE (MOENIE) nie toegelaat om	CAN ... NÓT, MAY ... NÓT, (NEEDN'T) allow .. not to, not have to  KAN/MAG .. NÍE (HOEF NIE) toegelaat om nie
<u>Extr. Ag.</u> I POSS A [-int]	CAN  KAN	CAN'T not possible for .. to  KAN NIE nie moontlik vir .. om	CAN ... NÓT (NEEDN'T) not have to, possible for ... not to  KAN ... NÍE (HOEF NIE) moontlik vir .. om nie
<u>Intr. Ag.</u> I POSS A [+int]	CAN  KAN	CAN'T not able to  KAN NIE	-  -
<u>Intr. non-Ag.</u> I POSS {I [+int] } O	CAN  KAN	CAN'T not possible for .. to  KAN NIE nie moontlik vir .. om	CAN ... NÓT possible for .. not to  KAN ... NÍE moontlik vir .. om nie
<u>Epistemic</u> I POSS E BEL O	(CAN), MAY  KAN, MAG	CAN'T (WON'T) not possible that  KAN NIE (SAL NIE) nie moontlik dat	MAY NÓT (NEEDN'T) possible that ... not  KAN/MAG ... NÍE (HOEF NIE) moontlik dat ... nie

TABLE 3

## NEGATIVE FORMS OF THE "POSSIBILITY"

MODAL AUXILIARIES

MODALITY	MODAL AUXILIARY	MODAL NEGATION: NEG (NEC)	PROCESS NEGATION: NEG (NEG)
<u>Deontic</u>			
$\left\{ \begin{array}{l} A_i \\ I \end{array} \right\}$ NEC A <sub>(j)</sub>	WILL, MUST	NEEDN'T (CAN .. NÓT, ?MAY .. NÓT) not have to	MUSTN'T, WON'T (CAN'T, MAY NOT) obliged not to
	SAL, MOET	HOEF NIE, (KAN/MAG .. NÍE) nie verplig om	MOET NIE/MOENIE, SAL NIE (KAN/MAG NIE) verplig om nie
$\left\{ \begin{array}{l} A_i \\ I \end{array} \right\}$ NEC A <sub>(j)</sub> [+rem]	SHOULD/ OUGHT TO	NEEDN'T (CAN .. NÓT) not have to	SHOULDN'T, OUGHTN'T TO expected not to
	BEHOORT	HOEF NIE (KAN/MAG .. NÍE) nie verplig om	BEHOORT NIE veronderstel om nie
<u>Intr. Ag.</u>			
I NEC A [+int]	WILL	WON'T not inclined to	WILL ('LL) .. NÓT inclined not to
	SAL	SAL NIE nie geneig om	SAL .. NÍE geneig om nie
<u>Intr. non-Ag.</u>			
I NEC $\left\{ \begin{array}{l} I \\ O \end{array} \right\}$ [+int]	WILL	WON'T	WON'T
	SAL	SAL NIE	SAL NIE
<u>Volitional</u>			
A <sub>i</sub> NEC A <sub>i</sub> [weak]	WILL	?WON'T not willing to	WON'T, WILL ('LL) .. NÓT willing not to
	SAL	?SAL NIE nie gewillig om	SAL NIE/... NIE gewillig om nie
A <sub>i</sub> NEC A <sub>i</sub> [strong]	WÍLL	- not insist on	WÓN'T, WÍLL NOT insist on not
	WÍL, SÁL	- dring nie daarop aan	WÍL/SÁL NIE dring daarop aan dat .. nie
A <sub>i</sub> NEC A <sub>i</sub>	-	not want to	want to not
	WIL	WIL NIE	WIL NIE/... NIE
<u>Epistemic</u>			
I NEC E BEL O	WILL, MUST	NEEDN'T (MAY NOT) not necessarily	WON'T (CAN'T) necessarily not
	SAL, MOET	HOEF NIE (KAN/MAG .. NÍE) nie noodwendig	SAL NIE (KAN NIE) noodwendig/beslis nie
I NEC BEL O	SHOULD/ OUGHT TO	NEEDN'T (MAY NOT) not likely	SHOULDN'T, OUGHTN'T TO likely that ... not
	BEHOORT	HOEF NIE nie noodwendig	BEHOORT NIE waarskynlik nie

TABLE 4 : NEGATIVE FORMS OF THE "NECESSITY" MODAL AUXILIARIES

## 6.2 Contrastive statement

Tables 5 and 6 constitute our basic contrastive statement of the semantics of the English and Afrikaans modal auxiliaries, each form being tabulated as an exponent of one of the types of modality identified and made explicit within our linguistic framework.

Before considering the more particular cross-linguistic similarities and differences in form-meaning relations, we must review certain more general grammatical-semantic aspects which are of relevance here.

### 6.2.1 General remarks

#### 6.2.1.1 Similarities

There are certain areas of general form-meaning congruence in English and Afrikaans:

- (a) Broadly speaking, the distinction between the non-oblique and the oblique forms of the modal auxiliaries correlates with either a non-past v. past or a non-remote v. remote distinction in both languages.
- (b) The formal congruence between the modal auxiliary + have and the modal auxiliary + ge-... het constructions reflects an underlying semantic parallelism. In both languages, when the modal is non-oblique, the construction can only be interpreted epistemically, as in

- 3 (a) It may have happened yesterday.  
 (b) Dit mag gister gebeur het.

As has been seen, this construction is rarer in Afrikaans, where an oblique modal is preferred, than in English, although mag (no doubt due to the absence of an epistemic form mog) and sal are regularly found with ge-... het. When the modal is oblique these constructions may be interpreted either epistemically, in which case the process is past, or non-epistemically, in which case both modality and process may be regarded as remote and a contrafactive reading would be normal (cf. § 4.3.2.2(a)), cf. e.g.

- 3 (c) He could have done it.  
 (d) Hy kon dit gedoen het.

The pastness associated with the process in the epistemic interpretation is characterised by the same deep-tense range in both languages, i.e. "imperfect", "perfect" and "pluperfect", because of the neutralisation to have in this context in English (cf. § 4.2.1.2(b)).

(c) In both languages, when the deep aspect of the process is characterisable as "simultaneous" - as indicated by formal devices such as the progressive be + ing in English and besig om te in Afrikaans - the relevant utterance can only be interpreted epistemically (cf. § 4.1.2).

#### 6.2.1.2 Differences

(a) Although, as noted in 6.2.1.1(a) above, there is a broad cross-linguistic correlation between the meanings of the non-oblique as opposed to the oblique forms, when the oblique forms of the Afrikaans modals combine with simple "infinitive" verb forms, with the exception of sou, they normally signal past (non-epistemic) modality rather than remote modality and even when remoteness is signalled, it is normally only non-conditional, sou being introduced in conditional contexts (cf. 22(c) and (d) of § 4.3.2.2, repeated here as 4(a) and (b), and also table 2, p. 96):

4 (a) If I could sing so beautifully, I could earn a million.

(b) As jy vir Charlie kon sien, sou jy vir hom jou verhaal kon vertel.

With ge-... het verb forms both conditional and non-conditional remoteness is generally signalled, and so there is no contrast here with the congruent English constructions (cf. table 2, p. 96).

(b) In epistemic contexts the oblique v. non-oblique distinction cannot generally be said to correlate with a remote v. non-remote distinction in Afrikaans, as the decisive criterion here appears to be the deep-tense of the process, or rather, its correlative surface form: oblique modals tend to co-occur with ge-... het forms and non-oblique modals with "infinitive" forms. The conditioning factors here then are essentially formal rather than semantic (cf. § 4.3.4.1(c)).

(c) Because the Afrikaans modal auxiliaries can co-occur in (non-complex) surface sentences and in clauses, the non-oblique forms - with the exception of sal itself - can signal futurity when combined with sal. The English modal auxiliaries cannot normally signal futurity in

syntactically non-complex structures, catenatives and other constructions being used here, e.g. will have to, will be able, will be allowed etc. (cf. § 2.3.1.2 and § 4.2.2). Although the English modal auxiliaries can be interpreted as expressing future modality in certain contexts when there are sufficient semantic and syntactic "clues" in the surrounding discourse, they do not normally do so in simple, independent structures. We have therefore reflected this distinction between English and Afrikaans in our basic semantic representations, the Afrikaans non-oblique forms (except for sal) being [-past] and the English ones [pres] with respect to modality.

(d) As noted in § 4.2.2 above, non-oblique forms of the modal auxiliaries occur relatively more frequently in Afrikaans than in English partly because of a number of factors which are essentially stylistic rather than semantic, i.e.: (i) the more widespread use of present forms generally in Afrikaans narrative style; (ii) the use of non-oblique forms in dependent clauses such as those expressing "indirect speech"; (iii) the less frequent use of oblique forms to signal remoteness, as noted also in (a) above; and the related phenomenon of less frequent use of oblique forms as politeness markers in Afrikaans.

We turn now to more specific aspects of the meanings of the forms given in tables 5 and 6.

### 6.2.2 The "possibility" modal auxiliaries

The English and Afrikaans forms expressing "possibility" are given in table 5, p. 197. The column headings detail the types of modality expressed and the specifications A, I and I given for the

[+int]    [-int]

non-epistemic modalities relate to the modality source characteristic of each type. In the table the modal auxiliaries themselves are accompanied by the grammatical-semantic features which appear on the modal predicate in semantic representation and, where relevant, they are also accompanied by a further specification relating to the modality source (cf. deontic may). Some of the more idiosyncratic characteristics of these forms are not represented in the table but will be discussed in the following section where relevant.

### 6.2.2.1 Similarities

As shown in table 5, there is a marked correspondence in form-meaning relations between the English and Afrikaans "possibility" modal auxiliaries. Thus can/could and the congruent forms kan/kon can all express epistemic, deontic, intrinsic and extrinsic Agentive and intrinsic non-Agentive possibility, and congruent may and mag both express epistemic or deontic possibility.

### 6.2.2.2 Differences

Despite the general parallelisms just referred to there are a number of differences in the meanings expressed by congruent forms in the two languages:

- (a) While could + infinitive constructions may be interpreted as expressing past or remote possibility, kon + infinitive constructions rarely signal the latter and when they do the remoteness is practically always only non-conditional (cf. §6.2.1.2(a)).
- (b) In epistemic contexts, while can and could (and also may and might) are distinguished in terms of remoteness, the choice between kan and kon is conditioned essentially by syntactic factors, and so the oblique form here cannot be said to signal epistemic remoteness (cf. §6.2.1.2(b)).
- (c) While the English non-oblique forms can and may normally express present modality, non-epistemic kan can also express future modality (cf. §6.2.1.2(c)). Non-epistemic mag can express past as well as present and future possibility (cf. §4.2.2.2(a)).
- (d) Epistemic can is not normally used in declarative structures while kan is quite regular here (cf. §4.2.1.1(d) and §4.2.2.1(d)).
- (e) Deontic may is a more marked form than mag from an essentially pragmatic point of view: with may the deontic source is practically always the speaker (the "hearer" or addressee in questions) while the source with mag can be any Agent (cf. §4.2.1.2(a) and §4.2.2.2(a)).
- (f) While could (extrinsic Agentive) cannot be used to refer to a single completed past action, this restriction does not appear to apply to corresponding kon (cf. §4.3.3.1(a) (25(c)) and §4.3.4.1(a) (35(c))).
- (g) There is no Afrikaans parallel to epistemic might. Mog may be

regarded as congruent within the paradigm but it expresses past deontic possibility on the rare occasions that it is used.

### 6.2.3 The "necessity" modal auxiliaries

The basic types of meaning expressed by the "necessity" modal auxiliaries are represented in table 6. The column divisions are essentially the same as those in table 5, with the addition of those relating to weak, intermediate and strong volition.

#### 6.2.3.1 Similarities

Table 6 reveals a fair degree of parallelism in the meanings of congruent forms, and the general similarities referred to in §6.2.1.1(a), (b) and (c) concerning oblique and non-oblique forms, constructions with have/ge-... het and deep-aspect restrictions on non-epistemic modals apply here too.

In other respects the correspondences between congruent forms are not as marked as in the case of the "possibility" modals and so the contrasts here must be carefully considered.

#### 6.2.3.2 Differences

(a) The general remarks on the rarity of oblique modals expressing remoteness in Afrikaans (cf. §6.2.1.2(a)) apply here to moes and wou. Moes practically never signals remote modality when the following verb is infinitive, but only past modality. When, however, it is followed by a ge-... het form, i.e. a remote process, it expresses remoteness and the whole expression generally has contrafactive implications (cf. §5.3.2.1(b)). Wou can express remoteness with a following infinitive verb, but this is rare, and it is more normally found with ge-... het, in which case the resulting expression here too has contrafactive meaning. Moes generally, and wou always, express non-conditional remoteness (cf. §5.3.2.1(b) and §5.3.2.2(b)).

(b) Neither moes nor wou correlates, as it happens, with congruent modal auxiliary forms in English. As seen in the table, forms of the catenatives have to and want to are used here. It should be noted however that the English forms given here express past modality and also

both conditional and non-conditional remoteness, thus contrasting in predictable respects with their Afrikaans counterparts.

(c) With respect to the second general contrast noted (cf. §6.2.1.2(b)), as in the case of the other Afrikaans forms, epistemic moet and moes do not differ in terms of remoteness but represent essentially syntactically-conditioned choices. Moet does however have a "remote" counterpart in behoort, and as the remote counterpart of epistemic must is should, behoort and should here represent a relationship of similarity of meaning without formal congruence.

(d) The third general contrast noted (cf. §6.2.1.2(c)) is also relevant here. Thus except for sal the non-oblique Afrikaans forms signal present or future modality while the deep-tense range of the non-oblique Afrikaans forms is generally restricted to present only.

We turn now to more specific contrasts applicable to this set of modal auxiliaries.

(e) Must and moet share the meanings epistemic, Agentive deontic and Instrumental deontic necessity but they differ in that moet can also signal what has been called extrinsic Agentive necessity. Here the modality source is a set of circumstances (i.e. it is Instrumental) and there is no discernible "deontic intent". Must usually connotes deontic intent because it is practically always used in situations where speaker/hearer identification is present. Have (got) to is not restricted in this way and so it, unlike must, can express extrinsic Agentive necessity (cf. §5.2.1.1(a) and §5.2.2.1(a)).

(f) The congruent forms will and wil only share the strong volitional meaning, i.e. when both carry stress, with will normally signalling also weak volition (where sal is used in Afrikaans) and wil normally signalling intermediate volition (where the English counterpart is the catenative want to). The position here is paralleled in the oblique forms would and wou (cf. §5.2.1.2(c) and §5.2.2.2(a)).

(g) While sal, in terms of our classification, expresses six different types of meaning and is one of the most frequently used of all the Afrikaans modal auxiliaries (cf. table 1, p. 72), congruent shall can express only epistemic and deontic meanings and has the lowest frequency of all the English modal auxiliaries. The epistemic sense is rare and the deontic sense, unlike the case with corresponding sal, is restricted

to use in interrogatives with first-person subjects (cf. the features [+h.] as opposed to [+sp./h.] in the table. Cf. also §5.2.1.3 and §5.2.2.1(a) and (b)).

(h) The English counterpart of sal is obviously the non-congruent form will. These forms share all the same basic meanings but deontic will complements deontic shall in that it cannot be used in interrogatives. Like shall and sal it expresses only Agentive deontic necessity with the Agent being necessarily one of the interlocutors, here the speaker. It therefore takes the feature [+sp.] (cf. §5.2.1.2(b)). Will and sal differ in one further respect, i.e. strong volitional sāl can only be used when the source Agent is the speaker, a restriction that does not apply to will.

(i) The oblique forms of those mentioned in the previous paragraph, i.e. sou and would, also share a number of meaning correspondences. Each expresses past or remote (conditional) intrinsic Agentive and non-Agentive necessity and also past and remote weak volition. Stressed wōuld expresses strong volition in the past, but there is no corresponding sou form here. Sou also differs from would in that it can express a type of modality which we have called quasi-epistemic modality (cf. §5.3.2.3(c)).

(j) The congruent forms should and sou as full markers of modality (i.e. "necessity") do not share any common meanings, but should and non-congruent behoort can be seen to be close counterparts.

(k) With respect to "other meanings" (i.e. non-modal in the strict "necessity/possibility" sense), sou and would can both act as markers of remote conditionality and both can express "future-in-the-past" meanings (cf. §5.3.1.1(c) and §5.3.2.3(c)). Sou, however, can also act as a marker of non-conditional remoteness, and in this respect shares a sense with congruent should, which is normally restricted to marking this type of remoteness only.

Despite considerable similarities, there are then a number of differences in the patterning of the Afrikaans and the English modal auxiliaries with respect to form-meaning relations. In the following section we return very briefly to the question of the relevance of studies such as that undertaken here to foreign-language teaching.

EPISTEMIC	NON-EPISTEMIC			
	DEONTIC	AGENTIVE		NON-AGENTIVE
	A	I [+int]	I [-int]	I [+int]
(CAN) [pres]	CAN [pres]	CAN [pres]	CAN [pres]	CAN [pres]
KAN [pres]	KAN [-past]	KAN [-past]	KAN [-past]	KAN [-past]
MAY [pres]	MAY [pres] [+sp./h.]			
MAG [pres]	MAG			
	COULD [+past]	COULD [+past]	COULD [+past]	COULD [+past]
	KON [-past]	KON [-past]	KON [-past]	KON [-past]
COULD [pres +rem]	COULD [+rem]	COULD [+rem]	COULD [+rem]	COULD [+rem]
KON [pres]	KON [+rem]	KON [+rem]	KON [+rem]	KON [+rem]
MIGHT [pres +rem]	MOG [+past]			

TABLE 5 : THE MEANINGS OF THE "POSSIBILITY" MODAL AUXILIARIES

EPISTEMIC	NON-EPISTEMIC							
	DEONTIC		AGENTIVE		NON-AGENTIVE	VOLITIONAL		
	A	I [-int] [+sp./h.id.]	I [+int]	I [-int]	I [+int]	NEC [weak]		NEC [strong]
MUST [pres]	MUST [pres] [+sp./h. id.]	MUST [pres]		have (got) to				
MOET [pres]	MOET [-past]	MOET [-past]		MOET [-past]				
WILL [pres]	WILL [pres] [+sp.]		WILL [pres]		WILL [pres]	WILL [pres]	want to WIL [-past]	WÍLL [pres] WÍL [-past]
(SHALL) [pres] SAL [pres]	SHALL [+h.] SAL [pres] [+sp./h.]		SAL [pres]		SAL [pres]	SAL [pres]		SÁL [pres]
MOES	MOES [+past] had to MOES [+rem] had had to, would have had to	MOES [+past] had to MOES [+rem] had had to, would have had to		MOES [+past] had to MOES [+rem] had had to, would have had to				
			WOULD [+past]		WOULD [+past]	WOULD [+past]	wanted to WOU [+past]	WÓULD [+past] WÓU [+past]
			WOULD [+rem] [+cond]		WOULD [+rem] [+cond]	WOULD [+rem]	wanted to; had wanted to; would have wanted to WOU [+rem] [-cond]	
SHOULD [+rem]	SHOULD [+rem] [-sp./h.] [+sp./h. id.]	SHOULD [+rem]						
SOU (source = A)			SOU [+past] SOU [+rem] [+cond]		SOU [+past] SOU [+rem] [+cond]	SOU [+past] SOU [+rem]		
BEHOORT [+rem]	BEHOORT [+rem] [-sp./h.] [+sp./h. id.]	BEHOORT [+rem]						

TABLE 6 : THE MEANINGS OF THE "NECESSITY" MODAL AUXILIARIES

### 6.3 Implications and applications relating to language teaching

In Chapter 1 we noted that source-language interference is one of the main causes of error in foreign language learning; that interference results from differences between the source and target languages; that contrastive analysis exposes these differences (and also any similarities); and thus that the results of contrastive analyses can be used to predict and explain many of the errors which the learner makes in his target language. The relative importance of the predictive as compared to the explanatory function will vary according to the type of teaching situation, e.g., according to what other information on errors is available, so that where an error analysis has been undertaken, "contrastive analysis directed specifically to those areas of the language where errors are most frequent is likely to provide information on why the errors occur, and at the same time to suggest ways of organizing teaching materials so as to anticipate and circumvent the problems" (CATFORD 1968 : 160).

What we will here call the "implications" of contrastive analysis in the context of foreign-language learning and teaching derive from the potential of this discipline as a device for predicting and explaining interference-based error. We consider these implications briefly in the next section. If a contrastive analysis is sufficiently consistent, accurate and exhaustive (i.e. makes explicit both similarities and differences in a systematic fashion) and if - at least in the context of the linguistic "area" studied here - the point of departure in the analysis is meaning rather than form, then - as Catford notes - the analysis itself can provide valuable pointers not only to what should be emphasised in teaching materials but also to how this material should be organised. We shall consider this aspect in the section on "applications" (§ 6.3.2).

#### 6.3.1 Implications

In accordance with our findings in Chapter 1 regarding the validity of the "contrastive analysis hypothesis" (cf. §1.2), all the differences in meaning-form relations identified in this study may be regarded as potential sources of learner error. Interference-based errors are therefore capable of being predicted or explained by the contrastive analysis, irrespective of which of our languages is the source and which the target. As our main concern is with the analysis itself (cf. §1.1), we cannot here provide a

full description of all the potential errors which may be "generated" by each linguistic contrast, but we shall indicate and exemplify briefly some of the main types of error that arise.

Various classification parameters are applicable to the description of errors, e.g. "receptive" v. "expressive", "plausible" v. "authoritative" and "spontaneous" v. "controlled" (cf. CORDER 1974), and there are also, from a more strictly "structural" point of view, classifications in accordance with the level of structure involved, e.g. lexis, syntax, phonology, etc. In the context of our study, however, a consideration of errors from the perspective of the communicative effectiveness of the learner's utterances will probably be most valuable. Errors could then be classified broadly along the lines laid down by Blumenthal, i.e.

- (a) the resulting utterance is unacceptable and possibly also incomprehensible;
- (b) the utterance is acceptable but would be given a different interpretation by the native speaker than that intended by the learner;
- (c) the utterance is acceptable but contains unintended implications or stylistic marking; and
- (d) the learner fails to make full use of the choices which are available in the target language and so may often employ a less frequently used expression instead of the - to the native speaker at any rate - more obvious one (cf. BLUMENTHAL 1976 : 54).

Generally speaking, the degree of seriousness of the "error" declines as one moves down from (a) to (d).

The following are a few examples of each type of what may be called "interference-based communicative error", references in brackets after each example indicating the paragraphs in the previous section (i.e. §6.2) where the relevant differences were discussed.

(a) Unacceptable

TL Afrikaans:

- 5 (a) \*As jy vir Charlie kon sien, kon jy vir hom jou verhaal vertel. (§ 6.2.1.2(a))

TL English:

5 (b) \*In the old days Stoffel may still borrow his father's car. (Transfer from congruent mag, cf. §6.2.2.2(c)).

(b) Acceptable, but meaning different to that intended

TL Afrikaans:

5 (c) !Jy sou huis toe gegaan het. (Behoort is required - transfer from congruent should, cf. §6.2.3.2(j)).

TL English:

5 (d) !The manager should have said that the comedian was a fool. (Is supposed to is required - transfer from congruent ("quasi-epistemic") sou, cf. §6.2.3.2(i)).

(c) Acceptable, but unintended implications or stylistic marking

TL Afrikaans:

5 (e) ?Kon jy my asseblief sê waar dit is? (Kan would be normal in most situations, kon being much more restricted stylistically than congruent could, cf. §6.2.1.2(d) and §4.3.4.1(b). This example reveals an odd juxtaposition between the "frozen" kon and the familiar jy.)

TL English:

5 (f) You must take your girlfriend home. (There would be an unintended implication of speaker authority here if the speaker was merely reporting an obligation (which is quite in order with congruent moet), and have to would be more appropriate - and usually more polite - in such a context. Cf. §6.2.3.2(e)).

(d) Learner uses less obvious expression

TL Afrikaans:

5 (g) Die boek mag in die biblioteek wees. (Kan is avoided, although it would be more regular here because of restrictions on the congruent (epistemic) can which do not apply to may, cf. §6.2.2.2(d)).

TL English:

5 (h) I would be able to see you tomorrow. (As in the case of 5(g), this utterance may be said to constitute a covert, minor communicative error if conditional could is always avoided (because of the lack of conditional kon and the regular use of a remote conditionality marker in the source language), cf. §6.2.1.2(a)).

Despite the many similarities in the meaning-form relations manifested by the English and Afrikaans modal auxiliaries, there are then also a considerable number of differences, and these are sources of interference-based error. The representative sample of errors and their explanations given above should provide an indication of the general lines of approach relevant to the evaluation of information made available by a contrastive analysis.

6.3.2 Applications

The link between contrastive analysis on the one hand and actual foreign-language teaching on the other is an indirect one: "To use the results of C.A. 'raw' in the classroom is rather like presenting a customer in a restaurant with the ingredients and a recipe" (SANDERS 1976 : 69). Jarvis (1972 : 238), for example, views the relation between linguistic science and language teaching in terms of a double process of "digestion", i.e.

SCIENTIFIC GRAMMARS → PEDAGOGICAL GRAMMARS → TEACHING MATERIALS.

The "pedagogical" grammar derives from a "scientific" grammar or grammars, the chief considerations governing its compilation being practical usefulness and explanatory value for the student: "Pedagogical grammars are not required to attain the standards of empirical validity demanded of scientific grammars. Such grammars are validated in so far as they promote quick, useful, and successful learning. They should provide schemata which guide the learner to organise and systematise his knowledge, and in doing this a degree of oversimplification is inevitable" (JARVIS 1972 : 239).

A contrastive analysis should be regarded as a (partial) "scientific" grammar (i.e. one which is intended to be as exhaustive, accurate, consistent and economical as possible, cf. §1.1) of two languages which is

also of pedagogical relevance because of the importance of transfer and interference in language learning, and it can be of service in the drawing up of specifically "pedagogical" grammars or more directly as a source for the preparation of classroom materials. Ideally, then, the general descriptive framework of the contrastive analysis should be one which is relevant to the foreign-language learning situation: as such it can provide pointers as to how course materials should be arranged.

The contrastive analysis presented here, it is hoped, goes some way to meeting this relevancy requirement, and a number of factors which help to ensure this should be mentioned here by way of conclusion.

(a) Although our primary focus here has been on a small, formally-defined class of words (because of the high degree of cross-linguistic congruence they manifest), our concern has been to show how these words relate semantically to a large number of other forms, all of which participate in the expression of modality. Our descriptive framework is semantically based, partly because this type of framework is normally the most suitable one for contrastive analysis (cf. §1.2.2.1), and this fact is of considerable pedagogical relevance, given that - as we have noted (cf. §1.2.2.1) - the basic problem confronting the learner is that of relating a certain meaning to a new set of forms.

(b) By using a small number of semantic primitives, principally the abstract predicates POSS, NEC and BELIEVE and the functional-semantically defined arguments Agent, Experiencer, Instrument, Object and Goal, we have been able not only to make explicit the nature of the semantic relations between formally different modality markers but also to show how the different senses of one and the same modal auxiliary relate to one another. The classification of different types of modality is based on the kinds of semantic primitives present and the way in which they are structured relative to one another in the semantic representation. The modal auxiliaries of each language are then shown not to be arbitrarily ambiguous but to express a select set of related meanings.

(c) Distinctions between modality markers and between different senses of the same modality marker are not merely lexical-semantic but also functional-semantic, in that these distinctions relate to different uses of language, e.g. expressing a belief about or a desire for something, giving or reporting permission, issuing or reporting a command, and so on.

A considerable amount of information regarding the functional potential of the various modality markers may be derived from our semantic representations, the modal predicates POSS and NEC having different interpretations depending on which other predicates and (functional-semantically defined) arguments they are related to at the deep level. Of prime importance here is the inclusion and characterisation of a modality source in all semantic representations which has enabled us also to include certain kinds of essentially pragmatic information within our framework, e.g. whether the deontic source is the speaker himself or not, or whether he "identifies" with the deontic modality expressed.

(d) As our contrastive analysis attempts to be reasonably exhaustive it reveals both similarities and differences between the two languages, and this is of considerable importance for language teaching (cf. e.g. Rivers' remarks as quoted in §1.2.1).

The characteristics of our approach which are summarised here render our contrastive analysis suitable for pedagogical "digestion" because the basic organising principle of language-course design should ideally be a "notional" (content-centred) and not a grammatical (form-centred) one, cf.: "... it seems that a contrastive pedagogical grammar which could justifiably claim to be useful to the learner from the point of view of the psychological processes of encoding and decoding messages should be notional in character" (MARTON 1974 : 188). In the context of our field of interest this means that the teacher's or text-book writer's point of departure should not be "the modal auxiliaries" but rather "modality", further differentiated into the various functions which relate to each type of modality (cf. here also the discussion of "notional syllabuses" in WILKINS 1976).

A good example of a "notional" pedagogical grammar of the modal auxiliaries of English is the one devised by Jarvis (1972). Different functions are identified in accordance with different types of what he calls "speaker's attitude", and this is differentiated in terms of certain basic predicates e.g. "think possible" and "make necessary" together with certain arguments e.g. "speaker" (cf. our A as deontic source), "somebody" (cf. our A) and "something" (cf. our I). The points

[+sp.]

of similarity with our approach will be obvious.

Much work remains to be done on the "pragmatics" of modality markers, and the question of the role these expressions play in determining the illocutionary potential of the sentences in which they appear (cf. e.g. LAKOFF 1972 and FRASER 1975) could well serve as a point of departure for further study. Our chief concern here has been with semantics, but - as has been shown - certain types of functional-semantic and pragmatic information can be contrasted and compared within our framework. As such it is hoped that this study may constitute a valid contribution to what should be the central problem in teaching a foreign language, "that of demonstrating and exercising the meaningful use of its systems and structures as a way of communicating with other people ..."  
(LEE 1968 : 193).

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For Afrikaans alone:

Randse Afrikaanse Universiteit taaldiens-navorsingsprojek: Frekwensie-  
bepaling van die woorde en sekere basiese strukture van die  
Afrikaanse spreektaal. "Main" corpus (M.), "spontaneous"  
corpus (S.) and "S.A.B.C." corpus (R.).