TOWARDS A SEMANTIC SYNTAX OF ENGLISH: THE CASE OF THE MODALS *CAN* AND *MAY*[1]

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The present state of linguistic theory and model construction does not allow setting up an overall linguistic model, encompassing such diverse linguistic components as phonology, syntax, lexis, semantics, pragmatics, sociolinguistic variation etc. In spite of the fact that such a model does not seem to be realizable in the near future, it is felt, however, that most of those linguistic components are very intimately and delicately interwined.

The purpose of this paper is to show this strong interdependence of linguistic components in one specific area, i.e. that of syntax and semantics and to plead for an approach to syntax that has a built-in semantic level. If we think of syntax as that component of a total grammar of a language which contains the rules determining the structure of words, compounds, phrases, sentences and texts, then a semantic syntax can be defined as a syntax, which does not only state the formal rules determining a given structure, but also the semantic facts behind the formal rules. A semantic syntax thus adds a semantic starting-point or a semantic base to a purely formal syntax.

Formal rules are rules based on morphology, concord and similar syntactic constraints. Formally one could state that the English number system has the distinctions singular/plural and countable/uncountable. Semantically,

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[1] I wish to thank a number of persons for their help while I was working on this paper: first of all Prof. Dr. L. K. Engels (University of Leuven), who provided me with thousands of examples of *can*- and *may*-sentences taken from sixty modern British plays; also Dr. K. Sroka (University of Gdańsk), who drew my attention to Engelbretsen's paper; all the other participants of the 15th International Conference on Polish-English Contrastive Linguistics, held at Tleń, May 11—13, 1978, for their comments and suggestions on an earlier version of this paper; and last but not least Dr. Dennis de Loof (University of Trier) for his evaluation and interpretation of the examples.

one can draw a dividing line between countable singular nouns on the one hand and plural and uncountable nouns on the other. This is typically illustrated by such oppositions as in (1):

(1) a* It's all dollar.
b. It's all dollars.
c. It's all money.

The common semantic reality behind plural and uncountable nouns is that both denote the idea of multitude and this is absent in most singular countable nouns.[2] Especially in cross-linguistic comparisons the difference between purely formal categories and semantic categories stands out clearly. Thus a formal syntax can be said to specify the fixing of the lexical material in certain word-classes: (*be*) *ashamed* is an adjective in English, *sich schämen* is a verb in German, and (*avoir*) *honte* is a noun (or part of a nominal expression) in French. But the semantic category behind these three different syntactic classes is the same: not only do the three items roughly have the same meaning, they can also function as a predicate with the same number of complements. (To avoid confusion over this term, we prefer to use the new term 'predicator' for this semantic category).

If syntax starts from such a semantic base, then the field of investigation is automatically widened, of course. Thus in the analysis of the subsystem of the two modal items *can* and *may* within the total system of modality, a semantic syntax starts, as is to be shown below, from the basic notion of potentiality and is not limited to those two modal auxiliaries, but also includes synonymous adverbs, adjectives and nouns such as *possibly*, *possible*, *perhaps*, *maybe*, (*there is*) *the possibility that*, etc. In fact, purely formal criteria such as word-class are being replaced by semantic criteria such as synonymous lexical meaning and identical valence of the item as a predicator, i.e. the number and distribution of complements that are used with this predicator. Moreover, the goals of a semantic syntax are also more ambitious: it wants to go beyond the purely taxonomic work of registering rules and constraints, and to reach an explanatory level, that is it tries, wherever possible, to account for why the rules and especially the constraints hold.

[2] As is well-known a certain class of singular countable nouns, viz. collectives such as *army*, *government*, *class*, *team*, etc. may either denote the group as such or the individuals in the group. Hence the concord is either singular (The ... *was* meeting) or plural (The ... *were* discussing the matter). Still, this semantic distinction does not yet put these items on a line with uncountable singulars nor with plurals, as appears from a test with *full of*, which has the same semantic value as *all*. Compare:
The room was full of *army. / The room was full of soldiers.
The room was full of *government. / The room was full of ministers.
The room was full of clergy. / The room was full of priests.
The room was full of nobility. / The room was full of dukes.

The term 'semantic' can after John Lyons (1977 : 50ff.) be taken in a very wide sense. In fact 'semantic' is the adjective corresponding to the noun 'meaning'. Since a distinction can and is to be made between meaning at the level of morphemes or words, at the level of sentences, and at the level of utterances (Lyons 1977 : 5), we can approach syntax from each of these three semantic levels, i.e. word semantics, sentence semantics and utterance semantics. The first is also known as lexical semantics; the second deals with the logical meaning of sentences abstracted and isolated from an interactional context[3] and could be called logical semantics; the third deals with the pragmatic meanings of utterances in social interaction and constitutes pragmatic semantics.

It is further possible, if not necessary, to take into account the sociocultural factors determining the specific social interaction and thus to reveal the social meaning conveyed by e.g. the choice of one particular variant amongst different possibilities. Thus in British English permission asked for by means of *Can I...* is more colloquial, whereas *May I...* is more formal. This is the level of sociolinguistic semantics.

The overall purpose of a semantic syntax is then to relate the possibilities of formal structure in the total system of language or in its various subsystems such as e.g. the system of potentiality, the progressive system, the emphatic sytem, etc. to the various semantic levels, and over and above that, to interrelate the various semantic levels so that linguistic meaning at one level e.g. lexical semantics can be adduced to account for phenomena of formal structure and meaning at the other levels.

The idea of a semantic syntax proposed here is to some extent a synthesis of recent developments in linguistics. The basic idea of a semantic syntax goes back to George Lakoff's dissertation (1970) in which the predominance of formal syntax, still underlying Chomsky's thinking in *Aspects of the Theory of Syntax* (1965) is replaced by a more abstract approach allowing for the fact that formal word-classes such as verbs and adjectives are subsumed under one semantic class (+VERB).[4] On the other hand our concept of a semantic

[3] The expression "the meaning of a sentence without a context" is, as John R. Searle (1978) shows, not quite correct, since any sentence of a language can only be understood against an enormous set of background assumptions. What this expression means is, in fact, "the meaning of a sentence without an interactional context". In this sense the logical meaning can be said to be synonymous with its literal meaning. The literal meaning of a sentence with *can* or *may* is then that of giving (or asking for) permission and that of stating (or asking about) possibilities or abilities.

[4] It was soon realized that also nouns belong to this semantic category of (+VERB) (see Dirven 1971, III, part 1, and Schachter 1973).
Of course, Lakoff's term (+VERB) has the same meaning as our term 'predicator', but it is a typical projection of surface or syntactic categories into a semantic level.

syntax departs from Lakoff's or McCawley's concept of 'generative semantics', which is also called 'semantic syntax' (Seuren 1972, 1974) as opposed to Chomsky's 'autonomous syntax'. We do not attempt to start from universal, abstract semantic concepts, but rather from language-specific lexical morphemes such as *can* and *may* or grammatical morphemes such as the English progressive form or emphatic *do*. Although *can* and *may* reflect universal notions, in this case the notion of potentiality, they express highly language-specific concepts in the field of potentiality, and are at the basis of a number of logical and pragmatic semantic facts in English, which are not found in other languages. Similarly, the English progressive form is not just to be equated with a universally valid, abstract notion of 'temporary progress', but rather denotes a very language-specific abstract notion of temporary progress, which does not make a distinction between comprehensive activities as in (2a) and more restricted activities as in (2b):

(2) a. They are building a house.
b. They are talking.

The semantic difference is especially felt when comparing both sentences with their Dutch equivalents using a kind of progressive form with *staan te*: Only (2b) could be rendered with *staan te*, but not (2a) (see Dirven 1976).

(3)a* Zij staan een huis te bouwen.
(lit.: They stand to build a house.)
b. Zij staan te praten.
(lit.: They stand to talk.)

This constraint on *staan te* in Dutch is relatable to the lexical meaning of *staan*, which presupposes a spatial and temporal continuity.

From the point of view of contrastive analysis a semantic syntax may become of great relevance if and when it is able to point out not only the formal differences and similarities between the various subsystems in the structure of two languages but also the semantic differences and similaritiee associated with them. Indeed, if it can be shown in a number of cases that the formal differences are not merely accidental but reflect — and may be the result of — different ways of abstracting human experience, different ways of systematizing the continua of knowledge and volition, then these formal differences may become for the learner of a foreign language an instrument of expressing slightly or strongly different notions from those he is used to express in his own native language.[5] It is thanks to such a very broadly

[5] A more elaborate version of this concept of contrastive linguistics is presented in Dirven (1976).

orientated semantic syntax[6] that descriptive linguistics can be expected to contribute to the development of applied linguistics and of didactic grammar. This type of semantic syntax will in this paper be illustrated in the exploration of one specific area, viz. that of potentiality as differently expressed by *can* and *may*. First the lexical meanings of *can* and *may* will be specified, and next some syntactic constraints on sentences with *can* and *may* will be approached from a semantic angle. The level of pragmatic semantics will not be discussed in this paper, but in a separate paper, entitled "Pragmatic forces associated with *can* and *may*-sentences" (Dirven 1980).

2. Lexical meanings of the modal morphemes *can* and *may*

The items *can* and *may* are, like most modal auxiliaries, ambiguous items. As is well-known they either have a volitional sense, viz. they denote permission or they have an epistemic sense, i.e. they denote an area in the domain of knowledge, viz. the area of possibility. Thus in minimal contexts like *John can do it* or *John may do it* the permission sense (John is allowed to do it) and the possibility sense (It is possible that John will do it) are possible readings. In addition the item *can* may denote ability (John is able to do it). Such facts have led several transformational grammarians[7] to accept three different items *can* and two items *may*: *can*[1] and *may*[1] were analyzed as transitive verbs in much the same way as *allow* is said to be transitive; *can*[2] and *may*[2] were analyzed as intransitive verbs, just like the adjective *possible*. In fact, *can*[1] and *may*[1] were, as volitional verbs, not looked upon as belonging to the field of modality. The item *can*[3] in the ability sense was not even adopted as a candidate for the class of modal auxiliaries.

This approach in terms of differences in underlying structural descriptions was dictated by the axiom of postulating one specific deep structure for each specific semantic interpretation. Although we do not want to query the validity of this transformational approach, it must be pointed out that a major linguistic fact was lost sight of in the process. This is the fact that the semantic similarity between the three readings of *can*, or for the same matter between

[6] The idea of a semantic syntax is not new, but can be found in the linguistic thinking and description of various linguists, e.g. O. Jespersen (1927), E. Leisi (1967[3], 1973), W. L. Chafe (1970), D. Bolinger (1977), G. N. Leech (1969, 1971), R. Dirven/G. Radden (1977), E. König (1977) and various other authors.

[7] The tendency to postulate two different underlying lexical items for one surface form was first started by Permultter (1970, 1971) in his analysis of the verb *begin*. In the same fashion Kraak (1968) and Van Belle (1974) postulated two underlying items, i.e. one for *can/may* (permission) and one for *can/may* (possibility), thereby ignoring major differences between *can* and *may* in each case, and not accounting for the similarities between the permission and possibility sense of *can* on the one hand, and for those of *may* on the other.

the two readings of *may*, is somehow stronger than the similarities between the permission senses of *can* and *may* or between the possibility senses of *can* and *may*. This major syntactic generalization had, however, already been made by structuralist semanticists such as F. Twaddell (1960), Martin Joos (1968) and Madeline Ehrmann (1966). Their refined semantic analyses show that the core meaning of each item is the same in the volitional and the epistemic senses.

In this typically structuralist approach, which operated on the basis of a binary principle, Martin Joos (1968 : 149ff.) accepts two groups of modal items, those expressing assurance and those expressing potentiality. Joos' own definitions are somewhat vague, therefore we paraphrase them here. Assurance means that the speaker can be rebuked or held responsible in case the event or action does not occur. Potentiality means that the speaker remains immune, because he has not so strongly committed himself. The modal items denoting assurance are *must, ought to, will, shall*, and those expressing potentiality are *need, dare, can, may*. Potentiality is further binarily split into stable potentiality, expressed by *dare, need*, and casual potentiality, expressed by *can, may*. Casual potentiality means that those two "modals take the relation to the world from the minimal social matrix of events, determining factors being the result of chance" (1968 : 149). Paraphrasing Joos, one can say that *dare* and *need* are stable modals because they denote events or actions accepted and omnipresent in a given sociocultural framework; *can* and *may* on the other hand are casual modals since the sociocultural framework has no norms imposing such events or actions: they result from chance. *Can* is looked upon as expressing adequate potentiality, since it depends on a complete set of determining factors in the sociocultural context; *may* is a contingent modal since the determining factors are not completely known.

Madeline Ehrmann (1966 : 74) gives a similar, though simpler paraphrase for *can* and *may*, i.e. "nothing in the state of the world prevents the predication". For the further binary splitting between *can* and *may* the characterization by F. Twaddell (1960) sounds simplest: for *can* he uses the paraphrase 'inherent' ,for *may* the paraphrase 'contingent', just like Joos. Summarizing these structuralist approaches, one could say that *can* denotes inherent casual potentiality and *may* contingent casual potentiality. The term potentiality is supposed to subsume the two senses of permission and of possibility, (and as is to be shown below even that of ability in the case of *can*).

The sense of inherent potentiality is found in the following context:

(4) As long as the door is bolted and I can have a light burning I'm not bothered. It's just I'm not keen on strangers.

What the speaker is describing here are the circumstantial conditions under which he won't be bothered. One circumstantial condition is the bolting of the door, the other is the potentiality (provided by the circumstances) to have a light burning. In fact, the inherent aspect of this condition is so strong, that it is no longer essential whether the speaker means permission, ability or possibility. Obviously, the use of *may* would have a different effect in (4), since then the sentence could only have a permission sense, the possibility sense being totally ruled out. The permission sense with *may* would, however, presuppose that someone was to give this permission. This sense of contingent permission which is dependent on the addressee's consent is clearly found in (5):

(5) If I may say so, sir, girls do take teddy-bears with them to bed.

Here the speaker asks for the addressee's permission to express his disagreement or contradiction. By using this permission formula, he assumes this permission to have been given. In some other contexts, however, the possibility sense is more likely. This is especially the case when either the perfective or the progressive aspect is combined with potentiality. In such cases it is interesting to realize the difference between inherent and contingent possibility.

Inherent possibility is often marked by contexts that allow one to derive this possibility from other facts, or to exclude it on the basis of such facts:

(6) With respect, ma'am, I hardly believe you can have known my father. You also look far too young.

What is suggested here by the speaker, is that from the addressee's age it can be derived that she did not know his father. In this context *may* is once again impossible. A context in which contingent possibility is required, is the following:

(7) For all I know he may be planning to buy this place with the money and build a suburb.

The difference between (6) and (7) stands out clearly: in (6) the speaker claims to possess enough knowledge to derive certain conclusions from it; in (7) he points out the restricted scope of his knowledge, and communicates a piece of knowledge which is dependent on his personal information. The use of *can* in (7) is extremely unlikely, since it denotes a possibility which is known to anybody and thus would be in conflict with the restrictive phrase 'for all I know'.

The difference between inherent and contingent possibility may also offer an explanation for a remarkable observation by Leech (1971 : 76). According to Leech the two sentences

(8) The pound can be devalued.
(9) The pound may be devalued.

differ in that the former states a theoretical possibility, whereas the latter hints at a factual possibility now. Since the possibility with *can* is inherent, it is theoretically always present and can be deduced from the circumstances by all persons who share this circumstantial information; but possibility with *may* depends on the information of one person i.e. the speaker himself, and is consequently more real or urgent, at least in so far as the speaker does not merely make a guess. The notion of inherent potentiality expressed by *can* is also able to account for the very close affinity between the ability sense and the possibility sense in a number of sentences.

Although there are very clear instances in abundance of either an ability-only sense (10), or a possibility-only sense (11), there are also numerous instances where both seem to be involved simultaneously (12). Compare:

(10) He can hardly more, but does.
We can see the flames, of course.
Yes, I can see that might be fun.

Here either the ability to do something, or the ability for physical and mental perception is expressed.

(11) Can this be happening to me? Is it real? Am I dreaming?

Here the possibility sense is clearly involved, which is especially signalled by the use of one of the aspects, viz. the progressive aspect.

But in the following cases both meanings are not only possible, but even seem to be called for simultaneously:

(12) We can fall in love like anybody else.
Electrical blow-cuts can damage the gas supply. They're famous for it.
They do it all the time.

It is because one has, by nature, the capacity of falling in love that the speaker can hold out the possibility of it happening to himself and the addressee too. Likewise, it is because electrical blow-cuts have the capacity of causing damage as shown by past experience, that they can be expected to do this in future, too.

Summarizing, we can say that, although *can* and *may* are partly synonymous since they both denote possibility and permission, they are also largely non-synonymous, since the two shades of possibility and permission are fundamentally different, even to such an extent that the possibility sense of *can* is more strongly related to the ability sense of *can* than to the possibility sense of *may*. These differences are mirrored in the concepts of inherent potentiality and contingent potentiality, suggested by structuralist semanticists.

Starting from this double set of lexical differences i.e. that between possibility and permission on the one hand, and that between inherent and contingent potentiality on the other, a number of syntactic constraints may become better understood.

3. Syntactic constraints on *can* and *may*

The syntactic constraints found with certain senses of the modal auxiliaries *can* and *may* are fairly well known and have been brought in light by several transformational and other grammarians. It is the claim of a semantic syntax that these constraints are not all purely formal or syntactic in nature, but that they are relatable to and partly explainable by semantic facts. This means that there is a logical incompatibility between the lexical senses of *can* and *may* and the sense of other grammatical morphemes or systems with which they are combined.

Some of the most important constraints on the various senses of *can* and *may* are the following four:

(i) the different possibilities for external and internal negation,
(ii) the difference found with *yes/no* interrogatives,
(iii) the different possibilities for reference to future time, and
(iv) the different possibilities for the progressive and perfective aspects.

(i) By external negation is meant the negation of the modal item, by internal negation that of the other predicators used with it. Several grammarians have observed that *can* favours external negation, whereas *may* can only have internal negation, so that the two sentences *It can rain today* and *It may rain today* have fundamentally different meanings when negated as shown in (13):

(13) a. It cannot rain today (=It is impossible that it will rain today).
b. It may not rain today (=It is possible that it will not rain today).

Though this observation is not incorrect,[8] the situation is, in fact, even more complex. In fact, only external negation or negation of the main predicator is real negation, in the sense that a contradiction holds between the affirmative and the negative sentence. In a contradiction one of the two contradictories must be true, the other must be false. Internal negation on the other hand is rather an affirmative than a negative statement. This appears from the fact that also here the main predicator can be negated. Thus we have four possibilities for the permission sense of *can* and *may*: the affirmative (14a), the affirmative with internal negation (14b), the negative (external negation of the main predicator (14c)), and the negative combined with internal negation (14d).

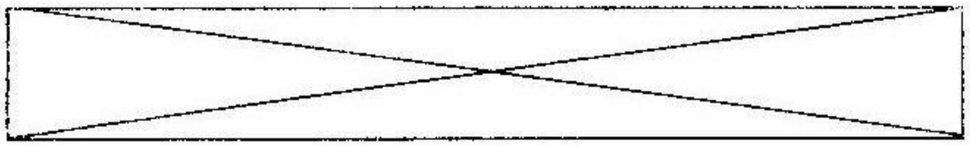
[8] This statement is presented in an earlier approach of mine (Dirven 1974).

The relation between those four cases can be represented in the following 'square of opposition', designed by Engelbretsen (1976: 531):

(14)

a. You {can / may} pay.

b. You {can / may} also not pay.



d. You {can't / may not} any longer not pay.

c. You {can't / may not} pay.

Real negation is found in (c), which is the contradiction of (a), and in (d), which negates (b): one of each pair must be true, the other must be false.
For the possibility sense the constraint on *may* can now be clearly delimited:

(15)

a. It {can / may} rain.

b. It {can / may} also not rain.

d. It can't any longer not rain.

c. It can't rain.

It is clear now that *may* in the possibility sense can be used in the affirmative only, not in the negative. We are thus left with the following problem: The contradiction of something that is inherently possible (15a with *can*) is something that is inherently impossible (15c). Likewise we would expect that the contradiction of something that is contingently possible would be something that is contingently impossible. But this cannot be correct on closer inspection. Impossibility is a notion that includes necessity; in other words, impossibility is only applicable to things or states that are inherently so. Thus it is common knowledge that *cannot* is not only the negation of *can*, but also of *must*. Or the sentence

(16) a. That man cannot be your father.

is the negation of both (16b) and (16c)

(16) b. That man can be your father.
c. That man must be your father.

In fact, it is also the negation of a third proposition, viz.

(16) d. That man may be your father.

Thus impossibility is the opposite of necessity, of inherent possibility and of contingent possibility.
(ii) A second constraint on the possibility sense of *may* is that it cannot be used in *yes/no* interrogatives. Compare:

(17) a. Can this be happening to me?
b.* May this be happening to me?

By means of the question with *can* in (17a) the speaker wonders whether there is something in the nature of things that makes it possible for something to happen to him. By using *may* instead of *can* the speaker would no longer try to find any relevant answer, since contingent possibility is never totally ruled out and the question would be a redundant one.

In terms of J. Searle's analysis of types of illocutionary acts (Searle 1969: 66) a *yes/no* question with *may* would violate a preparatory condition on questions, i.e. that the speaker "does not know the information needed to complete the proposition truly". In sentences with *may* the information contained is that of contingent possibility, which of course is always given, except in the case of necessity or impossibility. It must also be pointed out that the constraint on *may* in *yes/no* questions is not an isolated one, but belongs to a wider semantic constraint. The same restriction is found in questions with *will* asking about someone's assumptions e.g. about the identity of the person who makes some noise at the front door:

(18) Listen. *Will that be the postman?

Just like *may* the modal *will* is ruled out in direct questions because of pragmatic reasons: a question is asked to get information, but *will* presupposes that the addressee makes an assumption about the probability of something only, not that he can give the information required by the speaker.

However, this constraint holds only for *yes/no* questions, not for *wh*-questions, in which the information required by the speaker is the identification of an unknown variable:

(19) a. Who may that be?
b. Who will that be?

In (19a) the speaker wants the hearer to express his opinion about the possible identity of the person causing a noise; (19b) is a question about the probable identity of this person. In both cases the speaker seeks information the hearer may have. It is remarkable that *must* shows the opposite possibilities of *may* and *will*; *epistemic must* is perfectly possible in *yes/no* questions,

but not in *wh*-questions:

(20) a. Must that be the postman? Can't it be anyone else?
b.* Who must that be?

In (20a) the question is about the necessity of some identification and the speaker doubts this; in (20b) however he wants the addressee to give the necessary identity of someone they both hear, which is demanding too much of him since neither of them is supposed to know for sure.

It thus turns out that the constraint on *may* in *yes/no* questions is part of a wider system of complementary distributions in the field of modality, i.e. of possiiblity, probability and necessity.

(iii) A third constraint, this time on *can*, is that only *may* but not *can* is possible in a context of future time. Boyd and Thorne (1969: 71f.) adduce the following example to substantiate this observation:

(21) a. The party to be held next week may be boring
b.* The party to be held next week can be boring.

Boyd and Thorne (1969: 71) even conclude from this that *can* is not a modal verb in sentences with sporadic *can* (see below (22)), since "*can* is a modal verb, ... only when it is an alternative form for *may*". However, this conclusion is obviously too strong, since then the second constraint, whereby *may* is ruled out in *yes/no* questions, would oblige us to say that *can* is not a modal verb in possibility questions like (17a). Instead of claiming the status of a modal verb for *can*, Boyd and Thorne (1969: 71) propose the theory that *can* expresses a sporadic aspect, i.e. something that happens sometimes. They claim that "only sentences that can be paraphrased in this way [i.e. with *sometimes*] are able to take *can*". One of their examples and paraphrases is the following:

(22) a. Coctail parties can be boring.
b. Sometimes coctail parties are boring.

However, this analysis does not offer a complete picture. First of all the adverb *sometimes* can be used in the *can* sentence itself, which shows that the theory of sporadic aspect does not cover the whole of the meaning of *can*.

(23) A harsh dose of reality can sometimes help towards a cure.

Secondly, the paraphrase with *sometimes* is not always obvious in all contexts:

(24) A specialist in emotional black-mail, he can become hysterical when slighted or — as inevitably happens — rejected.

One reading that seems to be possible with the second part of this sentence would be: He always becomes hysterial when rejected. Moreover, it should be noted that the adverb *always* can co-occur with *can*:

(25) An artist can always excuse his curiosity on the grounds of a search for material.

Thirdly, sentences with *can* are unequivocally relatable to the present moment of speaking, but similar sentences with *sometimes* are not:

(26) a. He can become hysterical any moment now.
b.* He sometimes becomes hysterical any moment now.

It is clear therefore that sentences with *can* express more than their paraphrases with *sometimes*. The difference is that sentences with *sometimes* only refer to previous experience (it has happened before and it may happen again), whereas sentences with *can* express a generalization about such experience in the form of a logical deduction: because something belongs to the nature of things, it is inherently possible for it to happen again. It is precisely because such generalization is impossible in connection with a future event, e.g. *the party to be held next week* in (21b) that *can* is ruled out there. Thus it is not so much the future context that is at stake in the third constraint but rather the element of generalization that is less compatible with a unique event in the future. If this event is one element in a series of events as in (24, 25, 26a) the notion of future time is not exluded.

(iv) A fourth constraint is, as already stated before, one on the permission sense of *can* and *may*: in this sense *can* and *may* cannot be combined with the progressive or perfective aspects. Only the possibility sense of *can* and *may* allows of these two aspects. Compare the possibility readings in (27) with the permission reading in (28):

(27) a. I am wondering what on earth this filthy, scruffy, old tunic can possibly be doing in the mess?
b. I hardly believe you can have known my father.
(28) a. Can I go down town?
b. ... if I may say so.
(29) a.* Can I be going down town?
b.* ... if I may have said so.

Again the difference between the use of the two aspects with the possibility sense of *can* and *may* and their incompatability with the permission sense can be related to semantic facts. Possibility judgements are time-indifferent and may be related to the past, the present, and even — as shown before — within certain constraints to the future. The giving of permissions, on the other hand, is time-specific in that it is normally orientated towards the future. Moreover, this constraint is not typically found with the permission sense of *can* and *may*

only, but also occurs with other constructions expressing volition such as the imperative or volitional verbs like *want*. This verb can only marginally take the progressive in the complement sentence, and the perfective is fully ruled out:

(30) a. ?I want you to be going down town.
b. *I want you to have said so.

In some contexts, however, especially when future activity in progress or a future achievement of some activity is denoted, the aspects seem acceptable with *want*:

(31) a. I want you to be doing the washing up when I come back.
b. I want you to have finished the washing up when I come back.

But with *may* or *can* in the permission sense, just like also with imperative constructions, the aspects are ruled out. This contrast between *can/may*/imperative on the one hand and *want* on the other hand may be related to the fact that the former are combinable with non-stative predicators only, whereas *want* can take both stative and non-stative predicators. The aspects in (31) can be said to denote states: (31a) is an activity seen as a future state, and (31b) is an activity seen as achieved: in fact it is a state of achieved activity. It is the notion of state that is not combinable with permissions and imperatives.

In one specific case, the progressive is even possible with *can*. As Leech (1971: 71) observes, a theatrical producer could say to his cast by way of a 'democratic imperative':

(32) Willy, you can be standing over there; and Janet can enter the room from behind the curtain.

For Leech the fact that "*can* occurs with the Progressive Aspect ... is a sign that it belongs to the 'possibility' rather than to the 'permission sense'" (1971: 71). Methodologically, a crucial problem arises here. What Leech is doing, is begging the question to some extent. Of course, we do not want to query Leech's observation, but what we want to emphasize is that we need semantic arguments for the statement that the possibility sense is involved here. One possible argument would be the combinability with the adverbs 'possibly' or 'perhaps'.

(33) Willy, possibly you can be standing over there; and perhaps Janet can enter the room from behind the curtain.

Anyway, in a semantic syntax, a given constraint cannot be allowed to be a proof of a semantic fact. On the contrary, socalled syntactic constraints

should as often and as far as possible be explained by using semantic facts.[9]

Still, the observation made by Leech is extremely challenging. Here we have an instance of a 'democratic imperative' which is used with a progressive aspect. This is a clear hint that the semantic base of syntax cannot be limited to logical meaning, but that it is to include pragmatic points of view, as well. But as already stated we shall leave the analysis of the pragmatic forces associated with *can* and *may* for some other occasion.

REFERENCES

Bolinger, D. 1977. *Meaning and form*. English Language Series 11. London: Longman.
Boyd, J. and Thorne, J. P. 1969. "The semantics of modal verbs". *JL 5*. 57—74.
Chafe, W. 1970. *Meaning and the structure of language*. Chicago: The University of Chicago Press.
Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: The M.I.T. Press.
Dirven, R. 1971. *Some problems of attribution and predication in English syntax. A transformational approach*. Ph.D. dissertation. Catholic University of Louvain.
Dirven, R. 1974. "Kontrastive Linguistik Heute". In Werner, O. and Fritz, G. (eds). 1974. 202 - 271.
Dirven, R. 1976. "A redefinition of contrastive linguistics". *IRAL 14*. 1 - 14.
Dirven, R. 1978. "Pragmatic forces associated with *can* and *may* sentences". Paper read at the conference of the 'Societas Linguistica Europea' at Paris.
Dirven, R. and Radden, G. 1977. *Semantische Syntax des Englischen*. Wiesbaden: Athenaion.
Engelbretsen, G. 1976. "The square of opposition". *Notre Dame Journal of Formal Logic VII.4*. 531 - 541.
Ehrman, M. 1966. *The meanings of the modals in present-day American English*. The Hague: Mouton.
Jespersen, O. 1927. *A modern English grammar on historical principles I*. London: George Allen.
Joos, M. 1968[2]. *The English verb — form and meaning*. Madison: The University of Wisconsin Press.
König, E. 1977. *Form und Funktion. Eine Funktionelle Betrachtung Ausgewählter Bereiche des Englischen*. Tübingen: Niemeyer.
Kraak, A. 1968. "A search for missing agents". *Le Langage et l'Homme 8*. 146 - 156.
Lakoff, G. 1970. *Irregularities in syntax*. Transatlantic series in linguistics. New York: Holt, Rinehart and Winston.
Leech, G. 1969. *Toward a semantic description of English*. London: Longmans.
Leech, G. 1971. *Meaning and the English verb*. London: Longmans.
Leisi, E. 1967[3]. *Der Wortinhalt. Seine Struktur im Deutschen und im Englischen*. Heidelberg: Quelle.

[9] Of course, a large number of constraints are purely syntactic. Thus the fact that two modal auxiliaries cannot co-occur in English is a syntactic constraint only. Compare **he must can play* with the German *er muß spielen können*. The English modal auxiliary lacks the infinitive form, which the German modal auxiliaries, here *können*, have. On the other hand, the fact that the modal auxiliaries have no imperative form in the various languages that I know seems to be a semantic constraint.

Leisi, E. 1973. *Praxis der Englischen Semantik*. Heidelberg: Winter Universitätsverlag.
Lyons, J. 1977. *Semantics I*. Cambridge: Cambridge University Press.
Perlmutter, D. 1970. "Surface structure constraints in syntax". *Linguistic Inquiry 1*. 187 - 255.
Perlmutter, D. 1971. *Deep and surface structure constraints in syntax*. New York: Holt, Rinehart and Winston.
Schachter, P. 1973. On syntactic categories: a critique of Lakoff's "*Adjectives and verbs*", Ross's "*Adjectives as NPs*" and Bach's "*Nouns and noun phrases*". Bloomington, Indiana: Indiana University Linguistics Club.
Searle, J. R. 1969. *Speech acts. An essay in the philosophy of language*. Cambridge: CUP.
Searle, J. R. 1978. *Lectures delivered in Hasselt and Trier, spring 1978*. Trier: L.A.U.T.
Seuren, P. A. M. 1972. "Autonomous versus semantic syntax". *FL 8*. 237 - 265.
Seuren, P. A. M. (ed.). 1974. *Semantic syntax*. London: Oxford University Press.
Twadell, W. F. 1960. *English verb auxiliaries*. Providence, Rhodo Island: Brown University Press.
Van Belle, W. 1974. "Modale en Performatieve Werkoorden". *Spektator. Tijdschrift voor Neerlandistiek III. 4*. 264 - 288.
Werner, O. and Fritz, G. (eds). 1974. *Deutsch als Fremdsprache und Neuere Linguistik*. München: Hueber.