

FORMAL CHARACTERISTICS OF THE MODAL AUXILIARIES IN ENGLISH AND POLISH

PIOTR KAKIETEK

The Silesian University, Katowice

The present paper falls into 3 parts, of which the first two (A and B) are concerned with the strictly formal, i.e., morphological and syntactic (distributional) features of the English and Polish modal auxiliaries, and the third one contains conclusions drawn from the contrasting of the two systems under discussion.

Part A: The English modal auxiliaries

The English modal auxiliaries exhibit the following set of formal features:

1. they have only finite forms;
2. they undergo Subject-Auxiliary Inversion;
3. they undergo Negative Placement;
4. they do not undergo Number Agreement;
5. they invariably occupy the initial position in the VP;
6. they do not combine internally (there are varieties, however, in which combinations of two modals in the same verb phrase are not anomalous, e.g. in Scots).
7. they lack the category of Imperative (unlike some of the other, semantically modal, verbs).

Features 1 to 7 are displayed by the following items: *shall, should, will, would, can, could, may, might, should/ought to, must, dare, need, and be to*.

Although, diachronically speaking, *should* as an equivalent of *ought to* is the past tense form of the 'compulsive' *shall* (Palmer's 'promise' use of

shall, 1965:113), for reasons of both semantic and syntactic nature it should be treated as a modal in its own right (note that unlike *shall*, *should* marks obligation, and its distribution is not restricted to the second and third persons only). This will account for why our list of the modal auxiliaries contains not one but two occurrences of *should*, one being a variant of *would* (the past tense form of the *will* of futurity), and the other of *ought to*.

Since *dare* and *need* share the distributional criteria of both full verbs as well as modal auxiliaries, some writers prefer to treat them separately from the other items on the above list. In Barbara Strang (1965:138) *dare* and *need* along with a number of other forms are referred to by the term 'marginal items'. Other labels for these items are also available in the relevant literature (e.g. pseudo- or quasi-modals). In Palmer (1965:37) *dare* and *need* are discussed under 'Problematic Forms'.

The use of *dare* and *need* as modals is limited to non-assertive contexts. 'Non-assertive contexts' refers not only to sentences that are overtly negative and/or interrogative but also to sentences involving so-called indirect negation. Here are some examples of sentences with indirect negation:

1. He need do it only under these circumstances.
2. He need have no fear.
3. Only the very brave dare go near the pressroom.

In view of their formal behaviour, *dare* and *need* seem to be best treated as belonging in both classes, i.e., modal auxiliaries and full verbs, without any corresponding difference in their meaning.

It may be pointed out that the use of *dare* and *need* as modal auxiliaries is relatively rare in British English, but it seems even more restricted in American English (Quirk et al. 1972:83). In this connection Ehrman (1966: 73) makes the following remark: "*Dare* and *need* are used so strikingly infrequently that for the purposes of this analysis they are said to be no longer in use as modal auxiliaries. Rather they are nearly full members of the set of catenative verbs, many of which have meanings very close to or at least somewhat related to those of the modal auxiliaries".

With *used to* (included by some writers among modal auxiliaries) there are dialectal differences, some speakers use it as a modal, others not. In Palmer (1965:39) it appears as a 'doubtful member' of the class of auxiliary verbs, and is not considered a modal auxiliary. In Twaddell (1965:22) *used to* belongs to the class of catenatives which includes, among others, constructions like *get + Ven*, *get + Ving*, *keep + on + Ving*, etc.

Most writers on English grammar do not classify *be to* as a modal auxiliary. In Twaddell (1965), for example, the item in question is put into the category of catenatives. In some other accounts *be to* is assigned the status of a 'quasi-modal auxiliary' (Hakutani and Hargis 1972:314). It seems, however, that

there are good reasons for regarding *be to* as a modal auxiliary in examples like:

4. They are to come.
5. He is not to do that.
6. He was to have come today.
7. Am I to understand that you are not coming?

However, in:

8. Worse is to come

be to is not a modal since it does not have to appear initially in the VP. Consider, e.g.

9. *Worse may be to come.*

Be to in 4 to 7 in almost all respects behaves like the modals listed on page 2. Thus a. it has no non-finite forms (there is no *to be to*, *being*, etc.); b. it does not collocate with the other modals; c. it undergoes Subject-Auxiliary Inversion; d. it undergoes Negative Placement; e. it always occupies the initial position in the VP; and finally f. it lacks the category of Imperative. In one respect, though, *be to* is different from the other modals, viz. it has the finite forms: *is*, *are*, *am*, *was*, and *were*. But, as Palmer (1965:143) quite rightly says, "In spite of this it is best treated as a modal, otherwise it can only be a very defective verb". The same position regarding *be to* is taken by Huddleston, (1971:295) who likewise includes this item into the category of modal auxiliaries. It may be also pointed out that, like some of the other modals, *be to* does not take the Progressive and Perfect Aspects, which explains the unacceptability of:

10. *He is being to go
11. *He has been to go

Twaddell (1965:10) wishes to account for the fact that the modal auxiliaries do not combine internally (feature 6) solely in terms of the elements of incompatibility in their meanings. As will be presently shown, this may well be true of some of the modals, or more precisely, of certain of their uses. The non-deviant character of the following examples shows that conceptions like, say, necessity, possibility, willingness, etc., are not necessarily mutually exclusive:

12. They may have to come here again tomorrow.
(where *may* signals possibility and *have to* necessity)
13. He may let you drive his car.
(where *may* signals possibility and *let* permission)
14. Such a man must be able to speak at least two languages.
(where *must* signals necessity and *be able to* ability)

The strangeness of 15. *You have to be willing to accept it* would, however, indicate that certain modalities at least are mutually exclusive (we ignore here specialized contexts which might justify sentences like 15). The combination of obligation and willingness seems untenable on psychological grounds.

It may also be pointed out that the ordering relations between various types of modality are not altogether arbitrary. Thus, while it is perfectly normal to say 16. *He has to be able to think*, 17. *He is able to have to think* where the order of the two modalities is reversed, is, at least to me, semantically anomalous.

The foregoing considerations point to the fact that the limitation imposed upon the co-occurrence of the English modal auxiliaries cannot be adequately handled without taking into consideration two types of criteria, semantic and formal. Note that Twaddell's treatment of the problem at hand would imply that this particular feature of the modals is not restricted to English only (and perhaps to a few other languages), but that it also extends across all other languages. It happens so that with regard to this type of constraint Polish is similar to English. But no such constraint is placed on the modals in a language like German, which is exemplified in:

18. Das solten Sie beweisen können.

(You should be able to prove that)

where two modal auxiliaries, *solten* and *können*, occur in the same simplex sentence. Dutch appears to allow even more than two modals to occur together, as is the case in:

19. Hij zou eigenlijk hebben moeten kunnen doen.

(He should have in fact been able to do it)

It is obvious that responsible for the impossibility of 20. *He must can speak at least two foreign languages* are not matters of semantic but of purely syntactic nature. The English modal auxiliaries simply do not have non-finite forms. On the other hand, the ungrammaticality of 21. *He must may have come* (where, we assume, *must* is used with the meaning 'conclusion' or 'strong probability' and *may* denotes 'uncertainty possibility' or 'weak probability') has to do with factors both of semantic and formal nature.

It follows from the above then that Twaddell's proposal concerning the non-combinability of the modals works only for some of them, or rather for some of their uses.

Occasionally, the claim is made to the effect that the English modal auxiliaries are lacking in selectional restrictions related to the choices of subject and object. This may well apply to cases like:

22. John might frighten sincerity.

23. Hopes will eat sandwiches.

where the value of *might* is 'possibility' and that of *will* 'future time'. Here the restrictions are on the main verb in its relationship to the subject and object, and not on the modal bit. But, note, that things are essentially different in:

24. He must (obligation) be seriously ill.

25. He may (permission) be tall.

where *must* and *may* are assumed to denote respectively obligation and permission. The modals in the senses suggested for them in 24 and 25 call for human or at least animate subjects. Notice also that the semantics of the modals as they are used in these particular examples is incongruent with stative verbs (or verbs referring to humanly uncontrollable actions). This proves that their use involves restrictions on both subject and main verb.

The fact that in 22 and 23, but not in 24 and 25, the modals are free of selectional restrictions should be explained by the meanings with which they are employed in these particular examples. The meanings conveyed by the modals in 22 and 23 are of a different type from those implied by the modals in 24 and 25. In Halliday (1970:333) the former meanings are referred to as 'modalities', while the latter are called 'modulations'. The modalities are outside the propositional part of the clause. By their very nature they are not subject to variations of tense, voice, etc., but they are free to combine "with all the values of these variables in the clause" (Halliday 1970:333). Modulations, in opposition to modalities, constitute a part of the proposition and they have their own complete set of tenses and are subject to voice and polarity. No wonder, then, that, being outside the proposition, the modalities play no role in selection restriction.

To conclude this section of the paper, we would like to draw the reader's attention to the inadequacy of the generally accepted rule expanding the Auxiliary constituent (Chomsky 1957:111 and 1965:106):

$$\text{AUX} \rightarrow \text{Tense (M) (have+en) (be+ing)}$$

What this rule in effect says is that irrespective of their specific meaning the modals are free to combine with either the Perfect or the Progressive Aspect, or with both simultaneously. The fact is, however, that the above rule for the Auxiliary holds good for the epistemic modals only (which are concerned with the various degrees of probability). To handle this particular fact about the modal auxiliaries, we would need some such rule as:

$$\text{AUX} \rightarrow \text{Tense} \left(\left\{ \begin{array}{l} \text{M}_1 \text{ (have+en) (be+ing)} \\ \text{M}_2 \end{array} \right\} \right)$$

where M_1 stands for the epistemics and M_2 for the roots.

Part B: The Polish modal auxiliaries

By the criteria adopted here for English, none of the Polish verbs fully qualifies as a modal auxiliary. The Polish verbs *móc*, *musieć*, and *mieć*, generally treated as modal auxiliaries, are only in two respects similar to the English modals, viz. they take the infinitive and they do not co-occur. In many other respects they are different. Thus:

- a) they are inflected for person, number, and tense, e.g., *Musisz iść* (2nd person, sing. number, present tense), *Musieli iść* (3rd person, plural number, past t.);
- b) they possess non-finite forms (e.g. *musieć*, *mogący*, etc.);
- c) they may occur non-initially in the VP, as in *Będę mógł to zrobić* (I'll be able to do it), where the active past participle *mógł* follows the future tense auxiliary *będę*;
- d) in questions they need not necessarily precede the subject NP.

The following are basically equivalent sentences:

Czy on musi to robić akurat teraz?

Where the subject *on* (he) precedes the modal *musi*, and

Czy musi on to robić akurat teraz?

in which *on* follows the modal.

Polish appears to allow for ellipsis of subject except for cases where subject appears either in the form of a noun or relative pronoun. In, for example, *Czy Tomek musi tam iść* the NP *Tomek* cannot be deleted since it would be irrecoverable.

Features (a) to (d) are by no means characteristic of the modals only. In fact, they are shared by nearly all full verbs. The following are, however, features strictly pertaining to the modals:

- a) the modals are always complemented by the main verb in the infinitive (they connote only one participant and an action with respect to which the participant functions as its ontological subject. Other participants that may occur in the underlying structure of sentences containing a modal auxiliary are connoted not by the modal itself but by the main verb with which it combines), which helps to keep them apart from other, semantically modal verbs like, for example, *lubić*, *woleć*, etc., which may be followed either by the infinitive (*Chcę pić*) or by a nominal phrase (*Chcę mleka*). There exist in Polish a handful of verbs which, like the modals, are also complemented by the infinitive, but this remains their lexical property; in contrast to the modals, they do not form a class (cf. Grzegorzewska 1967:131).
- b) a combination of two or more modals in the same VP is not allowable,

(constructions of the type *musi móc* belong to specialized or to out-of-the-ordinary contexts);

- c) they lack the category of Imperative (the semantically modal verbs *kazać* and *pozwolić* may be used in the Imperative).

It is interesting to note that although *pozwolić* and *kazać* are, semantically speaking, transitive verbs (two-place or two-argument verbs), they do not participate in the Passive, which explains the impossibility of:

1. **On był kazany przyjść później* (He was told to come later).
2. **Ona była pozwolona zobaczyć się z mężem* (She was allowed to see her husband).

However, being possessed of past participial forms, they are allowed to occur in 'impersonal' sentences (with unspecified initiator of the modality):

3. *Kazano im przyjść jutro* (They were told to come tomorrow).
4. *Pozwolono jej odejść* (She was allowed to leave).

The modal auxiliaries are both semantically as well as grammatically intransitive verbs (this also applies to the English modals). Since they have no past participial forms, they could not in any case be passivized or appear in indefinite subject (or impersonal) constructions.

In Part A of this paper it has been indicated that a satisfactory explanation of the internal non-combinability of the English modal auxiliaries must be based on criteria both of semantic as well as formal nature. It has been shown that although certain combinations of the modals would be plausible on semantic grounds, they would be impossible structurally simply because the modals have no infinitival forms.

The same type of limitation holds for Polish. But, of course, since Polish modal auxiliaries have infinitival forms, this phenomenon must be accounted for on a different basis. Decisive here seem to be factors having to do with euphony. Sentences like, for example, the following sound strange to the Polish native speaker:

5. *Jan zmusił Tomka do pojechania kupienia żonie pończoch.* (John forced Tom to go and buy a pair of stockings for his wife)
6. *Jan zamierzał pojechać kupić ten dom.* (John intended to go and buy that house)

In 5 we have two gerunds (*pojechania kupienia*) and in 6 two infinitives (*pojechać kupić*) immediately following one another. Less unpleasant to the Polish ear would seem to be the following paraphrases of 5 and 6:

- 5a. *Jan zmusił Tomka, aby pojechał kupić żonie pończochy.*
- 6a. *Jan zamierzał pojechać w celu kupna tego domu.*

At this point we would like to discuss briefly the status of *powinien* in the verbal system of Polish. Some writers classify *powinien* as an adjective, but it is quite evident that in this position they have been guided by purely historical considerations.

Jodłowski (1971:83 ff.), for example, analyzes the item in question along with forms like *wolno*, *warto*, *trzeba*, and a few others. He points out that on account of their semantics and syntactic functions as predicates they deserve to be treated as verbs. He chose to refer to these forms by the term 'uninflected nonfinite verbs' (*czasowniki niefleksyjne nicosobowe*). But, this label is not quite fortunate, since, appropriate as it may be for *warto*, *trzeba*, etc., it certainly is not suitable for *powinien* which, in contrast to the other forms, is not devoid of inflection. Consider the examples:

7. Nie powinieneś się z nim zadawać (You shouldn't associate with him).
8. Powinna wkrótce przyjść (She should come any minute now).
9. Powinniśmy ją zaprosić na obiad (We should invite her to lunch).

7 to 9 show that *powinien* is both inflected and finite, and therefore it ought to be treated separately from the other members of Jodłowski's uninflected non-finite verb category. *Powinien* seems best to be treated as one of the modal auxiliaries since, like them, it:

- a) has the ability to enter VP's;
- b) is followed by the infinitive;
- c) does not combine with the other members of the modal auxiliary class.

As a modal auxiliary *powinien* is also treated in the accounts (using formal criteria) provided by Krzeszowski (1966), Grzegorzewska, (1967), and other Polish linguists.

Thus our modal auxiliary class includes the following items: *musieć*, *mieć*, *móc*, and *powinien*.

A few words would be in order about the collocability of the modal auxiliaries with the other members of the AUXILIARY constituent.

In the following example BYĆ (to be) is the future tense auxiliary and it happens to be the only verbal element that can precede a modal auxiliary:

10. Będzie mógł robić, co zechce (He'll be able to do what he likes).

There are sufficient reasons for making a distinction between BYĆ in 10 (from now on AUX₁) and BYĆ (AUX₂) used in:

11. On musi być ukarany (He must be punished).

AUX₂ is the passive voice auxiliary. In opposition to AUX₁, which has no present and past tense forms, AUX₂ has all finite forms in all three tenses distinguished for Polish, i.e., present, past, and future.

AUX₁ and AUX₂ together with BYWAĆ (AUX₃) and ZOSTAĆ (AUX₄)

form the category of the Polish 'primary' auxiliaries. Functionally, AUX₃ and AUX₄ are aspectual variants of AUX₂. AUX₃ and AUX₄ are always followed by the past participle form of the main verb. AUX₃ is inflected for present and past tense, but it has no future tense:

12. Bywał często odwiedzany przez przyjaciół (past tense).
13. Bywa często odwiedzany przez przyjaciół (present tense).

AUX₃ does not catenate with the other primary auxiliaries and with at least some of the modal auxiliaries. 14 and 15 are rather doubtful and 16 is entirely unacceptable:

14. Będzie bywał często zapraszany na kolację (He'll be often invited to supper).
15. Musi bywać zapraszany (? He has to be invited).
16. Miejsce to może bywać odwiedzane przez turystów (? This place may be visited by tourists).

AUX₄ combines with the past participle of a 'perfective' verb to denote a completed action. Like AUX₂, AUX₄ possesses all the three tenses: *zostaje* (present), *został* (past), and *zostanie* (future).

17. Decyzja została powzięta tydzień temu (past tense).
18. Stare budynki zostaną zburzone (future tense).
19. (On) zostaje zaproszony na obiad (present tense).

Of some interest is 19, where *zostaje zaproszony* (is invited) does not say that the action is in progress at the time of the utterance. In 19 the meaning of present tense is what could be described as "past in the historical present". In combination with a 'perfective' verb *zostaje* seems to be confined to past time contexts or to contexts typical of commentaries, especially when one is reporting something that cannot be seen by the listeners.

The following formulas will account for the forms of the full verb required by the particular primary auxiliary:

$$\text{AUX}_1 + \left\{ \begin{array}{l} \text{V}_{\text{inf}} \\ \text{V}_{\text{a.p. pple}} \end{array} \right\}$$

V_{inf} = the infinitival form of the full verb

$\text{V}_{\text{a.p. pple}}$ = the active past participle form of the full verb

$$\text{AUX}_{2-4} + \text{Ven} \quad (\text{Ven} = \text{the passive participle form})$$

17. Będzie przemawiać (przemawiać przez dwie godziny (AUX₁ + V_{inf} $\text{V}_{\text{a.p. pple}}$))

Note that AUX₁ and AUX₂ may co-occur only when there is also a modal auxiliary in the VP.

The possible arrangements of the modal and primary auxiliaries then will be as follows:

1. AUX₁+M, 'będzie mógł'
2. M+AUX₂, 'musi być zrobiony'
3. M+AUX₄, 'ma zostać zburzony'
4. AUX₁+M+AUX₂, 'będzie mógł być napisany'

The Table below presents the grammatical categories of the modal auxiliaries:

Infinitive	móc	musieć	mieć	
Pres. Part.	mogący		mający	
Active Past. Part.	mógł	musiał	miał	
Perfect Part.				
Pres. Tense Ind.	mogę	muszę	mam	powiniennem
Past tense Ind.	mogłem	musiałem	miałem	

The Past Tense Indicative form of the third person singular is indistinguishable from the Active Past Participle only at the level of the VP (cf. *on mógł przyjść* and *on będzie mógł przyjść*).

Conclusions.

On comparison, the list of the English modal auxiliaries turns out to be considerably richer than that adopted here for Polish. Therefore, to translate certain of the English modals, Polish often has to resort to the use of a different sort of construction. To take an example, the Polish learner of English would in vain look for a modal auxiliary equivalent of the English *shall*, as it is used in:

18. You shall be sorry.
19. You shall have the money tomorrow.

In 18 and 19 *shall* makes it explicit that the initiation of the action implied by the main verb is external to the subject of the sentences. The Polish translations of 18 and 19 are as follows:

- 18a. Pożałujesz!
- 19a. Dostaniesz te pieniądze jutro.

Note that the Polish translation equivalents contain no special word by which to render this particular meaning distinction. In both the Polish sentences the full verb appears in its perfective future tense form. Examples like 18 and 19 also seem to involve a special kind of intonation.

To take one more example, to refer to a past habitual action, English may use either *would* or *used to*, as in:

20. He would often come home dead tired.
21. People used to think that the sun travelled round the earth.

The function of these two modals is taken over in Polish by the 'imperfective' past tense form of the full verb (often combined with an adverb of frequency). The Polish translations of 20 and 21 are:

- 20a. Często wracał do domu śmiertelnie zmęczony.
- 21a. Ludzie wyobrażali sobie, że słońce obraca się dokoła ziemi.

The English and Polish modal auxiliaries appear to be similar with respect to the following features:

- a. they are followed by the Infinitive;
 - b. they can be directly negated by *not* (in Polish the particle invariably precedes the modal);
 - c. they do not combine internally.
- In opposition to the English modal auxiliaries, the Polish modals:
- a. are inflected for person, number and tense;
 - b. possess non-finite forms;
 - c. may occur non-initially (though only in one case, viz. when the modal is preceded by AUX₁, i.e., the future tense auxiliary);
 - d. in question they need not necessarily invert with the subject NP.

Another structural difference between Polish and English has to do with the location of tense markers in the VP containing a modal auxiliary. In the case of modal VP's the 'deep' tense (or simply past time) may be associated either with the meaning of the modal auxiliary or with that of the full verb. Both in English and in Polish the modalities of the epistemics are tenseless, but the action of the full verb with which they happen to combine may be either present or past. It would then seem that the epistemics would be best described in terms of the universal tense qualifier (U) and their respective meanings (see Seuren 1969:147ff.). Thus, for example, the epistemic *must* might be described as follows: *U+Nec (essity)*. In 22. *It must have rained last night* the action conveyed by *rain* is past and the pastness here is signalled by the perfect auxiliary *have*. In the Polish equivalent of 22 the past tense marker is located in the modal element: 22a. *Musiato padać wczoraj*.

With the roots the situation is different. Here the meaning of the modal may be either present (i.e., contemporaneous with the time of the utterance) or past, or future, but the meaning of the full verb remains tenseless. This time in English and Polish the tense marker is located in the modal con-

stituent of the VP. Consider the following English examples and their Polish translations:

23. He must go (present obligation).

23a. Musi pojechać.

24. He had to go (past obligation).

24a. Musiał pojechać.

25. He'll have to go (future obligation).

25a. Będzie musiał pojechać.

Thus, as is shown by the above examples, unlike in English, in Polish the tense marker is always located in the modal element of the VP.

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