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#### PREFACE

As far as is known, all languages have ways of expressing modality, i.e., notions of possibility, necessity, contingency, etc. But this pervasive phenomenon has so far been the object of little systematic linguistic analysis. In fact, investigators do not even agree on the scope of the term modality. Very roughly speaking, two kinds of modality have been distinguished, namely epistemic and deontic. The former involves the speaker's judgment as to the degree of certainty of an event or state of affairs being referred to. Deontic modality, on the other hand, has to do with such notions as obligation, permissability and necessity. However, as useful as this distinction is, little is known so far concerning the linguistic patterns which express those ideas. It is clear that the modality systems of a great many languages will need to be thoroughly scrutinized and compared before any conclusions can be drawn as to their place in 'universal grammar.'

The papers included in this volume of the Kansas Working Papers in Linguistics were written by graduate students at the University of Kansas for a seminar on modality taught by Professor Choon-Kyu Oh in the spring of 1979. They deal with a variety of topics bearing on modality and with a variety of languages and language families. It is our hope that these papers will stimulate comments from colleagues at other institutions.

The Editors

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#### MODALITY IN MALAY

#### Abdul Aziz Idris

Abstract: This study of the modal expressions in Malay will be focused on the major syntactic characteristics of modality in relation to various speech acts, negation and tense/aspect. In attempting to characterize the semantic properties of modal expressions, and in justifying their categorization into two major types of modalities, epistemic or root/deontic, we will use intuitive or non-linguistic criteria together with linguistic criteria. Finally, based on generalizations that can be concluded from this study, we will discuss whether or not they fit into some of the tentative or quasi-universals already established elsewhere.

The modal expressions that will be discussed in this paper are the  $following^{1}$ :

mungkin<sup>2</sup> - possible
boleh jadi - may
barangkali - probable
mesti - must
boleh - can/may
terpaksa - have to
patut - should/ought to

#### Table I

These modal expressions may be grouped into three major categories, namely epistemic, root and both epistemic and root as shown below.

| Epistemic  | Root     | Epistemic/Root |
|------------|----------|----------------|
| mungkin    | boleh    | mesti          |
| boleh jadi | patut    |                |
| barangkali | terpaksa |                |
| mesti      | mesti    |                |

### Table II

The meaning of the epistemic modal expressions ranges from mere "possibility", mungkin/boleh jadi, to "strong possibility", or "near certainty" exemplified by mesti. In the case of the root category the meaning ranges from "permission", boleh, to "strong obligation", mesti. As seen from Table II there is only one modal that is ambiguous, i.e. mesti, which can be both epistemic and root in reading as in the following sentence.

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(1) Dia mesti tidor. he must sleep 'He must sleep.'

The two possible readings of sentence (1) are: "I am certain that he is asleep" (epistemic) and "He is required or obliged to sleep." The sentence could, however, be disambiguated by providing the proper context such as "sebab dia letih" (because he is tired) for the first reading, and "jika dia mahu bangun pagi" (if he wants to wake up early) for the second.

Within the root category, <u>boleh</u> is ambiguous. It can be interpreted as "permission" or "ability," but it could also be disambiguated if provided with a suitable context.

(2) Dina boleh masak nasi.
Dina can/may cook rice
'Dina is able/may cook rice.'

I will leave further discussion of the ambiguous modal expressions until later, after some of their basic syntactic and semantic properties and their relations have been discussed.

The epistemic modals in Malay are <u>mungkin</u>, <u>boleh jadi</u>, <u>barangkali</u>, and <u>mesti</u>. <u>Mungkin</u> and <u>boleh jadi</u> are semantically equivalent: both have the meaning of possibility as in the English modal <u>may</u>. As mentioned earlier, the former is an Arabic loan. The Arabic equivalent for <u>mungkin</u> is <u>mumkin</u> ( ), an adjective, and is glossed as "possible." <u>Barangkali</u> is equivalent to <u>probable</u> in English, while <u>mesti</u> is equivalent to the English must.

The root modals in Malay are <u>boleh</u>, <u>patut</u>, <u>terpaksa</u> and <u>mesti</u>.

<u>Boleh</u> is ambiguous between "permission" and "ability" in much the same way as English <u>can</u> is ambiguous. <u>Patut</u> is something like English <u>should</u>, a weak obligation or, more appropriately, a suggestion that is avoidable. This aspect of <u>patut</u> is exemplified in the following sentence with the circumfix <u>se.....nya</u>, which implies that the subject did not carry out the obligation.

(3) Dia sepatutnya pergi<sup>3</sup>.

he should go

'He should have gone, (but didn't).'

The third modal expression, terpaksa, is something like the English have to, but in this case the obligation is not necessarily imposed by the speaker but also by rules, laws or norms imposed by society or nature. Finally, mesti is defined as a "strong obligation."

The epistemic and root modals behave differently in declarative affirmative sentences. The epistemic modalities may occur in either of two positions, namely (i) sentence initial position or (ii) immediately preceding the main verb of the sentence. In both environments, the meaning of the sentence remains identical, and the epistemicity of the modal is maintained. In all cases the modals are subjective, expressing the speaker's assessment of the possibility or probability of the proposition embedded in the sentence<sup>4</sup>.

- (4)(a) John mungkin letih.

  John may tired
  - (b) Mungkin John letih.
    may John tired
    'John may be tired.'
- (5)(a) Siti boleh jadi pergi. Siti may go
  - (b) Boleh jadi Siti pergi.
    may Siti go
    'Siti may go.'
- (6)(a) Dia <u>barangkali</u> seorang pelajar. be <u>probable</u> a student
  - (b) <u>Barangkali</u> dia seorang pelajar. probable he a student 'He is probably a student.'
- (7)(a) Dia <u>mesti</u> sakit. he <u>certain</u> sick
  - (b) Mesti dia sakit.

    certain he sick

    'He must be sick.'

Some root modals can also occur in the same environments as the epistemic modals. These root modals, however, do not seem to maintain the consistency of meaning characteristic of the epistemic modals mentioned above. Boleh, for example, in sentence (8) has "permission" and "ability" readings, but in sentence (9) the "permission" reading is lost. The "ability" reading is maintained in (9), the only difference being that the modal is emphasized.

(8) Ahmad <u>boleh</u> baca buku itu.
Ahmad can read book DET
'Ahmad can read the book' (permission)
'Ahmad is able to read the book' (ability).

(9) Boleh Ahmad baca buku itu.
can Ahmad read book DET
'Ahmad is able to read the book' (ability).

In sentences (10) and (11), the root meaning of the modals <u>terpaksa</u> and <u>patut</u> is maintained, but the modals in the (b) sentences are emphasized. <u>Mesti</u>, however, loses its root meaning when placed in sentence initial position. In example (12b), <u>mesti</u> placed in sentence initial position assumes only the epistemic reading of "certainty."

- (10)(a) Ahmad terpaksa membeli buku itu.
  Ahmad has to buy book DET
  'Ahmad has to buy the book.'
  - (b) Terpaksa Ahmad membeli buku itu.
    has to Ahmad buy book DET
    'Ahmad has to buy the book.'
- (11)(a) Lim patut kuruskan badannya.
  Lim should slim body POSS
  'Lim should slim down.'
  - (b) Patut Lim kuruskan badannya.
    should Lim slim body POSS
    'Lim should slim down.'
- (12)(a) Dia mesti lulus peperiksaan itu.

  he must pass examination DET

  'He must pass the examination.' (root/epistemic)
  - (b) Mesti dia lulus peperiksaan itu.

    must he pass examination DET

    'He must (certain) pass the examination."

    (epistemic)

From the above, it can be concluded that Malay epistemic modals can occur in (i) sentence initial position and (ii) pre-main verb position without changing the basic meaning of the sentence. Some root modals such as terpaksa and patut maintain their root readings in both environments, while other root modals such as boleh and mesti lose their "permission" and "obligation" meanings, respectively, in sentence initial position.

Epistemic modalities are not used in yes-no or information-seeking questions. Of the four modal expressions in this category, only one, <u>mungkin</u>, seems quite acceptable in yes-no types of questions, while <u>boleh jadi</u> is not acceptable to many speakers. When it is used, it seems to be the type of question one asks oneself, to ascertain certain propositions, and not the type that one asks of another in search of information.

(13) Mungkin(kah) Ahmad pergi?
may QM Ahmad go
?'May Ahmad go?'

Boleh jadi, barangkali and mesti do not seem to be acceptable in any type of interrogative yes-no question. It appears that the greater the degree of possibility, as denoted by barangkali and mesti, the less the likelihood of one asking questions to ascertain the proposition that follows the modal. It may be acceptable to some native speakers of English to ask questions with the epistemic may, as in "May he go?" with the connotation of wondering to oneself, but it may not be possible or acceptable to impose such connotation with the epistemic must.

The root modals in Malay, however, may be used in informationseeking questions. Questions such as the following are quite acceptable in Malay and they necessitate some appropriate answers on the part of the hearer.

- (14) Boleh(kah) dia masak?

  can QM he cook
  'Is he able to cook?' (ability)
  'Can he cook?' (permission)
- (15) Patut(kah) dia pergi?
  should QM he go
  'Should he go?' (obligation)
- (16) Terpaksa(kah) dia hafalkan ayat itu?
  have QM he memorize sentence DET
  'Does he have to memorize the sentence?'
- (17) Mesti(kah) dia makan obat itu?

  must QM he eat medicine DET

  'Must he take the medicine?'

One major syntactic property of Malay modals, which distinguishes epistemic modals from root modals, is the exclusion of epistemic modals from the 'if' clause of additional sentences. This may be due to the fact that 'if' already presupposes the concept of possibility which forms the base of the meaning of epistemic modals. The sentences in (18), which include epistemic modals, are ungrammatical while sentences in (19) are grammatical and acceptable. Thus, the ambiguous mesti can only have the root reading in conditional sentences.

(mungkin)
(boleh jadi)
(18) \*Jika dia (barangkali) pergi, siapkan barangnya.
(mesti)

If he go get readythings POSS

MODALS
(epistemic)

(terpaksa)
(19) Jika dia (boleh) pergi, siapkan barangnya.
(patut)

If he (mesti) go get ready things POSS

MODALS
(root)

- (20) Mereka <u>mungkin</u> tidak pergi sekolah. they <u>possible NEG</u> go school 'They may not go to school.'
- (21) Tidak mungkin mereka pergi sekolah.

  NEG possible they go school

  'It is not possible that they will go to school.'
- (22) Dia boleh jadi tidak suka saya.

  he may NEG like me
  'He may not like me.'
- (23) \*Tidak boleh jadi dia suka saya.

  NEG may he like me
- (24) Awin barangkali tidak lambat.

  Awin probably not late
  'Awin is probably not late.'
- (25) \*Tidak <u>barangkali</u> Awin lambat. NEG <u>probably</u> Awin late
- (26) Dia mesti tidak belajar.

  he must NEG study
  'I am certain that he does not study.'

(27) \*Tidak mesti dia belajar<sup>6</sup>.

NEG must he study

From the above examples of the use of negation in relation to epistemic modalities in Malay, one can observe that only internal negation or negation of the embedded clause is allowed with epistemic modalities, except for mungkin, which can be negated externally as well as internally. As mentioned earlier mungkin is an Arabic loan, the original form being mumkin ( ), an adjective translated as "possible." Mumkin is negated in Arabic by using the negative marker gair ( ); the expression gair mumkin would then be equivalent to impossible or it is impossible. Based on this, one may conclude that the verbals or verbal auxiliaries such as boleh jadi, barangkali and mesti used in epistemic senses, in principle, may not be externally negated. Mungkin, in Malay, thus functions as an adjective which can be externally negated, sharing the characteristics of the English adjectival it is possible which can be externally negated.

The root modals in Malay can be negated externally as in the following examples.

The variations of the sentence roughly read as follows: (a) He is not permitted to study, or he is not able to study; (b) He is not obliged to study; (c) It is not the case that he should study; (d) He is not required to study. The negative marker may also follow the modals, but it brings forth some inconsistencies in the root meanings of the modals. In some cases, the root meaning emerges only if forced. In others, the root meaning is lost, or the form itself becomes unacceptable.

In (a) the only reading which is acceptable is that of "permission," i.e., "He is permitted not to study." The "ability" reading which makes this form ambiguous in other types of sentences is lost. In (b) the reading "He is obliged not to study" is normally unacceptable unless forced by a context such as "obligation not to

study because of more important matters at hand." In this case the obligation is not imposed by the speaker but by some other forces, and the speaker may or may not concur with the obligation imposed on the subject. I find (c) unacceptable, and I can't find any situation in which any reading can be forced. (d) is purely epistemic in reading, i.e., "I am certain that he does not study."

From the discussion of negation, it appears, when root modals are negated externally, the root meaning of the modals is consistently retained. When negation follows the modal expressions, the basic root reading seems to emerge only in forced contexts (29b), loses one of its root meanings (29a), or the sentences become unacceptable as in the case of (29c). Internal negation, however, disambiguates boleh and mesti. Internal negation of boleh (permission/ability) leaves it with a "permission" reading while internal negation of mesti (root/epistemic) reduces it to the "possibility" (epistemic) reading.

At this juncture it is appropriate to discuss the relation between negation and question in modal sentences. Earlier in this paper we discussed negation of an epistemic modality, i.e., mungkin - tidak (NEG) mungkin (see 21) while other epistemic modalities in the language do not appear to be negatable. This somehow had to do with the type of modality of mungkin. Based on its adjectival function in Arabic, it can be assumed that mungkin is not a verbal auxiliary or a true modal. It is negatable as the English non-verbal possible (as in it is not possible). Based on this assumption the epistemic modality in Malay may tentatively be categorized into verbals or verbal auxiliaries, consisting of the borrowed mungkin. The epistemic modals or verbals are not negatable nor can they be used in information-seeking questions while the adjectival mungkin may be used for both processes. In relation to the aspects of negatability and questionability there seems to be a correlation between different categories of the epistemic modalities. Root modals, on the other hand, as shown in (14) - (17) and (28) may be negated and questioned.

Malay verbs are not conjugated to indicate time (past, present, future, etc). Instead an aspect system or time adverbials such as besok (tomorrow), kelmarin (yesterday), hari ini (today), sekarang (now) etc. are used to indicate time. Aspect markers or adverbials are not obligatory in a sentence and are normally used as emphasis or clarification. Aspect markers can occur in a sentence.

```
(30) Dia telah tinggal di sana tahun lalu.

he PERF live at there year last

'He (lived ) there last year.'

(had lived )

(had been living)
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In sentences with epistemic modal expressions, the aspect markers occur between the modal expressions and the verb. In instances where adverbials are used, they normally occur in sentence final position.

```
(31)
      Dia mungkin (telah
                           ) jual keretanya.
                   (sedang )
      he MODAL
                   (akan
                           ) sell car POSS
                   ASPECT
       'He may (have sold ) his car.'
               (be selling )
               (sell
      Dia mesti pergi (a. besok
(32)
                      (b. kelmarin )
      he MODAL go
                      (c. sekarang )
                       ADVERBIAL
       'I am certain he (a. will go tomorrow).'
                       (b. went yesterday )
                       (c. is going now
```

In the above examples, the scope of the aspect markers and the adverbials is limited to the embedded sentences. In other words, epistemic modals cannot have temporal aspect. They are basically present or neutral in time, and this correlates with the subjectivity of epistemic modals, which are based on the speaker's current knowledge. However, unlike the sentences in (31), (32a) and (32c) are ambiguous. They can be epistemic as well as root in interpretation. Sentence (32b), on the other hand, is only epistemic, which may be explained by the fact that obligation may only be imposed at non-past time.

In sentences with root modals, adverbials such as <a href="besok">besok</a>, <a href="kelmarin">kelmarin</a>, etc. generally occur at the end of the sentence, a character-istic shared by both epistemic and root modals in the language. However, there is a limitation on the type of adverbials that can exist at the end of sentences with at least two root modals, i.e., <a href="boleh">boleh</a> (permission), <a href="mestive">mesti</a> (requirement). These root modals cannot occur with adverbials of past time, though there seems to be no constraint on their co-occurrence with present or future time.

ADVERBIAL

From the above examples, it can be safely assumed that permission and obligation cannot be imposed on the subject regarding time that has already passed. Such permission or obligation can only be imposed in future time. This, however, seems to be contradictory when the root modals patut and terpaksa are considered. These two modals, while normally acceptable when they co-occur with future or present adverbials, are equally as acceptable with past adverbials.

(34) Dia <u>sepatutnya/terpaksa</u> tidor lambat (kelmarin) (yesterday)
he MODAL sleep late (malam tadi) (last night)

With sepatutnya the sentence has the reading "He should have slept late yesterday/last night." With terpaksa it reads: "He had to sleep late yesterday/last night." This difference may be explained by the semantic properties of the two modals, which to some degree differ from that of boleh/mesti. Semantically, terpaksa and patut are something like an interpretation of the English should, which Boyd and Thorne (1969) explain as not a demand made by the speaker, but a demand that somebody or something makes on the subject of the sentence. Based on this interpretation of the two modals, it can be explained that sentence (34) is acceptable because it is a comment on a past demand or obligation made by another person or a situation.

All the root modals, except for <u>boleh</u>, (ability) are unmarked for time externally or internally. The aspect markers that occur before <u>boleh</u> are all statements of past, future, or current ability. They are normally used to emphasize the time aspect of the modal.

- (35) Dia telah boleh membaca.

  he PERF able read

  'He has been able to read.'
- (36) Jika dia rajin, dia akan boleh sudahkan kerja itu.
  if he work hard he FUT able to finish work DET
  'If he works hard he will be able to finish the work.'

To conclude this section on modality in Malay, in relation to time, we can generalize that root modal expressions in Malay, especially those with "permission/obligation" readings, are not characterized by aspect markers while in sentences with epistemic modalities, only the embedded sentences may be indicated for time by aspect markers. When adverbials indicating time are used, speaker's permission or speaker-imposed obligation is limited to present or future adverbials.

This discussion of modality in Malay is not an exhaustive one. Several other aspects of the use of modality in Malay such as

characteristics or properties of modals in relation to various classes of verbs, transformations such as passivization as well as pragmatic considerations need to be looked into in order to obtain a fuller understanding of modality. However, based on the aspects already discussed, several generalizations may be made at this point.

Modal expressions in a language can be made of verbal auxiliaries, verbs (as in Hebrew) and non-verbals such as adjectives, adverbs and nouns (Kress, 1976). Based on their syntactic properties, modal expressions in Malay can basically be categorized into two groups, namely modals and adjectives. However, it is difficult to determine which is which. In English it is at least relatively simple to distinguish the verbal modals from the non-verbal periphrastic expressions. The former are normally single-word expressions such as can, may, etc. while the latter of the form "it is possible/probable/certain that...." Such a distinction does not exist in Malay. Modals do, however, differ in relation to negation and question, as in the case of mungkin, which I have categorized as non-verbal. Further analysis is needed to differentiate which modals are verbal expressions and which are not. In any case, modal expressions in Malay fit into the two major categories of verbals and non-verbals.

One of the basic characteristics of epistemic modals found in most languages is the unnaturalness of yes-no questions with such modals. Questions with such modals seem to have a connotation of "wondering to oneself" which seems inappropriate if we are to assume that epistemic modals are generally based on the speaker's current knowledge. Epistemic modals in Malay such as <a href="mailto:boleh.jadi">boleh.jadi</a> and mesti similarly sound odd when used in yes-no questions.

One widely accepted generalization about modalities in many languages is their use in conditional sentences with 'if' clauses.

Epistemic modals are not semantically acceptable in such sentences.

Root modals, on the other hand, are acceptable. This seems to be true also in Malay.

Root modals with "permission" and "obligation" readings are not acceptable in past and progressive time in many languages. Root modals with ability and past-imposed obligation by forces other than the speaker seem to be acceptable. The Malay boleh (permission) and mesti (requirement - strong obligation) seem to concur with this characteristic.

In Malay root modals are both negatable as well as questionable. This property of the root modals seems to be shared by root modals in most languages.

Horn (1972) claims that there is a systematic connection between root modality and epistemic modality. This claim was supported by

Steele (1975) in her study of Kampangan, Thai, Luiseño and Classical Aztec. According to Horn's classification, the root and epistemic modalities can be classified into three major divisions depending on the degree of possibility or obligation. The following is the classification of English epistemic and root modals according to the degree of intensity of possibility and obligation.

| Modal  | Epistemic   | Root              |
|--------|-------------|-------------------|
| may    | possibility | permission        |
| should | probability | weak obligation   |
| must   | certainty   | strong obligation |

Horn claims that one should be extremely skeptical if one finds that in a language "certainty" correlates with "permission", or "possibility" correlates with "strong obligation." In other words, the epistemic modal with lowest value must correlate with the root modal with the same value and so on.

Table III.

The epistemic modal expressions in Malay discussed above are four in number. They can be reduced to three to fit the above categorization, because mungkin is semantically synonymous to boleh jadi. The root modals can likewise be reduced to three because terpaksa is more or less like mesti. The main difference between the two is that the obligation in terpaksa is not normally imposed by the speaker. Based on the above classification the modals in Malay fit into the major values set by Horn.

| Epistemic   | Modal Modal | Moda1 | Root              |
|-------------|-------------|-------|-------------------|
| possibility | boleh jadi  | boleh | permission        |
| probability | barangkali  | patut | weak obligation   |
| certainty   | mesti       | mesti | strong obligation |

Table IV.

Steele states that "when modals in any one language are ambiguous they are ambiguous in a predicted fashion." (1975:57). Ambiguity between epistemic and root modals occurs only in modals of the same value. For example, in English the ambiguity of may occurs only at the lowest value, i.e., between "possibility" and "permission." In Luiseño xu is ambiguous only between "strong obligation" and "certainty." In Malay, the modal mesti can be both epistemic and root in interpretation. Based on Table IV it is clear that the ambiguity of mesti occurs only at the highest value, i.e., between "certainty" (epistemic) and "strong obligation" (root).

### Footnotes

- 1 Because of the lack of studies on modality in Malay, we will leave them for the moment syntactically undefined in terms of grammatical categories such as auxiliaries, adjectives, adverbials, etc. Some tentative categorizations will however be made based on the syntactic properties of the modal expressions as we go along.
  - 2 Mungkin is an Arabic loan.
- 3 The circumfix se....nya appears to be affixed only to patut and not the other three root modals in the language. This can be explained by the fact that it falls in the category of "weak obligation" which provides the subject with a choice. Moreover, like its English equivalent, should have, it states an unaccomplished past obligation, which makes it reportable.
  - 4 See Siebel in this volume.
- 5 Similarly, as an epistemic modal approaches reality as in  $\underline{\text{mesti}}$  (certainty) it cannot be contradicted, as shown in the following examples:
  - 1. Dia <u>mungkin</u> sakit, <u>mungkin</u> tidak. 'He <u>may</u> (be) sick, <u>may</u> (be) not.'
- 6 This sentence is however acceptable, but with the root meaning i.e. "He is not obliged to study."
- 7 Root modal with ability reading is not considered in their argument.

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