Epistemic and Deontic Modalities in English and Arabic: A Contrastive Study

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Abstract

Modality is the category of meaning used to talk about possibilities and necessities, essentially, states of affairs beyond the actual. The present study aims at:
1-Describing epistemic and deontic modality in both languages, i.e. standard English and standard Arabic to identify the point similarities and differences between them in relation to this respect.
2-Helping foreign learners of modern standard Arabic to obtain some knowledge of the models of expressing modality in Arabic.
3-facilitating the task of the students of English –Arabic translation insofar as modality concerned.
The analysis of the study has revealed the following point:

- While certain modal auxiliaries are restricted in the kinds of interpretation they can receive (might, for instance, only has epistemic interpretations), many others can express various kinds of flavors (modals): may and must have epistemic or deontic interpretations.

- In English the syntactic / semantic structures of modality are mainly realized by modal auxiliaries while in Arabic modality are realized by particles (قد qad) (ربما rubbámaa), lexical verbs (يستطيع ينبغي)

1- Introduction

In linguistics, modals are expressions broadly associated with notions of possibility and necessity. Modals have a wide variety of interpretations which depend not only upon the particular modal used but also upon where the modal occurs in a sentence, the meaning of the sentence independent of the modal, the conversational context and a variety of other factors. For example, the interpretation of an English sentence containing the modal must can be that of a sentence of inference or knowledge (roughly /epistemic) or a statement of how something ought to be (roughly / deontic). The following pair of examples illustrates the interpretive difference:
1- John didn’t show up for work, he must be sick.
2- John didn’t show up for work, he must be fired.
The use of *must* in (1) is interpreted as indicating a statement of reasoned conclusion; the speaker concludes that *John is sick* because otherwise John would have shown up for work, (in 2) *must* is interpreted as a statement of how something ought to be: the speaker is saying that, because John didn’t show up for work, John ought to be fired.

The use of the modal, particularly in cases like example (1) above, contrasts subtly with not using a modal, as illustrated below:

3- John must be sick.
4- John is sick.

The use of the modal in (3) is interpreted as indicating that some process of reasoning was used to arrive at the conclusion that John is sick. The lack to preclude such an interpretation, and as generally considered to be a statement of fact (i.e. that speaker knows that John is sick,. in other words, a speaker would typically not say (3) if the speaker knows that (4) is true.

Modalities are expressed in different ways. In English, modality can be expressed not only by modal verbs but also by modal adverbs (possibly, probably) modal adjectives (possible, probable) and modal nouns (possibility, probability). Arabic in contrast does not have a distinct class of modal verbs with clear-cut distinctions. Modal meanings are realized by various means of syntactic structures the particles *قد، ربما* من الواجب and lexical verbs *يستطيع، ينبغي* Khalil (1999:215). The following English examples together with their Arabic translations are illustrative:

5- Ali can speak English fluently. Farghal & Shunnaq (1999:93)

6- I should study hard tonight (ibid)

7- The book may be on the shelf

   a) لعل الكتاب على الرف (Aziz 1989:84)
   b) يحتمل أن يكون الكتاب على الرف
   c) يمكن أن يكون الكتاب على الرف
   d) قد يكون الكتاب على الرف

Unlike English, Arabic does not seem to have grammaticalised modality; hence a variety of lexical items are used to express the meaning of a single English modal auxiliary. For that, it must not be assumed that all the paraphrases (a)...(d) under (7)are exact synonyms.

1-2 Classification of Modals

Modality can generally be expressed to signal any of the following: possibility or the related concept of permission, probability or the related concept of obligation, certainty or the related concept of requirement (steel et al., 1981).
Linguists have approached the English modals in various ways, formally and logically. Halliday (1970:189-210) views modality as part of the interpersonal constituents of language and subsequently classifies the English modal auxiliaries in terms of modality and modulation (i.e. the ideational constituent of language). Lyons (1977:792) classifies them into epistemic and deontic while generative grammarians often deal with them as root and epistemic modals (cf., Aziz 1992:101). Lyons (p.793) characterizes epistemic modals as concerned with matters of knowledge, belief, or opinion rather than facts while deontic modality with the necessity or possibility of acts performed by morally responsible agents (p.823).

An epistemically modal, or modalized, utterance can be exemplified by

8- a. Alfred may be unmarried. (Lyons 1977: 797)

b. Alfred must be unmarried. (ibid)

Lyons (1977:799) distinguishes two kinds of epistemic modality: subjective and objective. As he describes, subjective epistemic modality suggests the speaker’s “opinion, or hearsay, or tentative inference”. Its very essence is “to express the speaker’s reservations about giving an unqualified, or categorical, ‘I-say-so’ to the factuality of the proposition embedded in his utterance”. Objective epistemic modality does not express such reservations. In an objective epistemically modalized utterance, the speaker is committed to the factuality of what he says in the proposition. He is doing nothing else, but “performing an act of telling” (p. 799). Lyons claims that objective epistemic modality lies between alethic modality (which is based on what is known) and subjective epistemic modality; it might be assimilated to either (p. 798). Compared with subjective epistemic modality, objective epistemic modality seems to be less basic (p. 805).

The term ‘deontic’ is derived from the Greek word déon, meaning ‘that which is binding, duty’ (ODEE 1966: 257). Deontic modality, as Lyons (1977: 823) describes, “is concerned with the necessity or possibility of acts performed by morally responsible agents”.

Deontic modality can be exemplified by (9a), which can be interpreted as ‘I (hereby) permit you to open the door’ and (9b), which can be paraphrased as ‘I (hereby) impose upon you the obligation to open the door’.

9- a. You may open the door. (Lyons 1977: 832)

b. You must open the door. (ibid)

Moreover, Palmer (1974:102) describes the English modals along two axes: (i) their inherent property to express a certain degree of knowledge, a guess, or a conjecture about a certain event in the present or past time, and (ii) the source of their modality, being the subject of the sentence or one of the interlocutors in the discourse. Accordingly, he observes a distinction along two parameters: (a) epistemic /non-epistemic i.e., passing judgment on the proposition of the
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utterance, or not), and (b) orientation (i.e., subject or discourse-oriented). These parameters can be exemplified in (10)

10- a. Mary couldn’t go to school yesterday. (non-epistemic-subject-oriented).

b. Mary can’t have gone to school yesterday. (Epistemic – discourse-oriented).

Both utterances express past events. However, couldn’t in (10.a) indicates the inability of the subject to perform the act. The modal itself is marked for past tense; it is, therefore, non epistemic whereas (10.b) is viewed from the interlocutor's point of view and it is the proposition go (going to school) not the negative modal can’t that is marked for past tense. (Abdul-Fattah 2010:40)
The present study sheds light on deontic modality and epistemic modality.

1-3 Modality in English and Arabic

Modality is a blurred concept that centers around the notions of possibility, necessity and permission. So, independently of what a modal expression is used for, a modal sentence expresses the proposition content of the whole sentence with respect to some contextual restrictions (Werner, 2006, p. 235). Lyons’ (1977) two kinds of modality, epistemic and deontic, are widely accepted and acknowledged as the two most semantically fundamental kinds of modality (see Palmer 1990; Bybee et al 1994; van der Auwera & Plungian 1998)

1-3-1 Epistemic modality

Many modals have overlapping deontic and epistemic functions. The basic past and non past epistemic modals are must, may, might, will, would, can’t, couldn’t, should/ought to, needn’t, daren’t.

Epistemic modality is subjective, meaning that epistemic modals do not express objective, known reality, but the inferential judgment of the speaker as informed by circumstantial evidence and/or experience El-Hassan (1990: 151). They express a degree of certainty. For instance

Epistemic must expresses a stronger degree of certainty than may, might or could whether in present or past events. The epistemic necessity expressed by must, for example, is not to be taken as the realization of the actuality or non-actuality of the proposition, but as a logical conclusion.

Epistemic modality refers to a judgment of the speaker about a proposition, indicating the possibility and necessity of the proposition’s being or becoming true (Quirk et al 1985: 223). The proposition is thought to be uncertain or probable relative to the knowledge of the speaker. So our discussion will be structured with uncertainty, which is epistemic possibility. Semantically, the epistemic modal is independent of the content of the proposition and has its scope over the whole proposition (Bybee et al 1994: 198-9). Epistemic modality does not express a factual assertion. A factual assertion, e.g. He is there, makes
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a stronger claim than any epistemically modalized statements (Lyons 1977: 809).

1-3-1 -1 MAY / MIGHT

May is used for expressing the speaker’s doubt in the truth of proposition (Coates 1983: 133), as exemplified by (11) the paraphrase in terms of ‘possible that’ is an accurate one. May in this sense normally has stress and often carries fall-rise nuclear tone (Quirk et al 1985: 223).

11 -a. You may be right. (Quirk et al 1985: 223)
   b. He may go to London every day. (Palmer 1990: 52)

Might is obviously the past form of may, but it behaves differently from the past forms in the normal sense. It is normally a tentative alternative form to may with present time reference and merely indicates a little less certainty about the possibility (Quirk et al 1985: 223, Palmer 1990: 58)

12- a. Of course I might be wrong. (Quirk et al 1985: 233)
   b. So he might go and live with his parents for a while.
      (Palmer 1990: 58)

There is an ambiguity with might, as illustrated by the examples in (12). According to Palmer (1990: 184), the most likely interpretations for these are, on the one hand, ‘It is tentatively possible that it is not very important’ and, on the other, ‘It is possible that it would be nice’. The second is probably a judgment about a hypothetical event.

13 - a. It might not be very important all the same. (Palmer 1990: 184)
   b. That might be nice. (ibid)

Epistemic modality is seldom questioned. If it is questioned, the form used in negation is generally used in interrogation (Palmer 1990: 41).

Can is used instead of May in interrogation, as shown in (14).

   b. Could they have missed the bus? (Quirk et al 1985: 815)

May in the epistemic possibility sense is not absolutely forbidden from being used in questions, since there is an example (15a) from Quirk et al (1985: 815).

Might is also found in interrogation (Palmer 1990: 63), as shown by (5b).

15- a. May we be doing him an injustice? (Quirk et al 1985: 815)
   b. Would you ring me? Might that be best? (Palmer 1990: 63)

According to Quirk et al (1985: 233), the difference between may and might tends to neutralize when they express a tentative or hypothetical possibility/meaning. Many speakers regard sentences (16a) and (16b) as fairly identical, and this neutralization may be extended to sentences in which only might is appropriate, such as in sentence (16c). The occurrence of a sentence like (16c) demonstrates a growing tendency to eliminate the distinction between the factual and the non-factual interpretation of both modals.

16- a. You may be wrong. (Quirk et al 1985: 234)
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b. You might be wrong. (ibid)
c. ? An earlier launch of the lifeboat may [=might] have averted the tragedy. (ibid)

Another English modal auxiliary can be used epistemically, namely CAN / COULD as illustrated in (3-1-2)

1-3-1-2 CAN / COULD

The status of can and could in epistemic modality is rather problematic (Palmer 1990: 51). Coates (1983: 19) argues that can in its positive form “is never epistemic”. Goosens (1996: 31) states that can does not express epistemic modality except in non-assertion. Can replaces May, negating or questioning modality; and could is a tentative form and occurs in non-assertion, too, replacing might. The use of can and could is exemplified in (17). Can and could are not the modals dominated with the function of indicating epistemic possibility.

Can can be used in questions to express confusion, doubt, or surprise (OALD 1995: 161), as exemplified by (17). These senses seem to be related to its epistemic reading.

   b. What can they be doing? (ibid)
   c. Where can she have put it? (ibid)

In Arabic, there are a lot of expressions to convey the same meaning as illustrated in the (18)

18-The manager may be at home.
(a) يمكن أن يكون المدير في البيت
(b) من الممكن أن يكون المدير في البيت
(c) يحتتم أن يكون المدير في البيت
(d) من المحتمل أن يكون المدير في البيت
(e) ربما أن المدير في البيت
(f) قد يكون المدير في البيت

There is a remarkable similarity between the grammatical structure of the English and the equivalent Arabic expressions. All the Arabic translations contain an epistemic modal constituents followed by a proposition, parallel to the corresponding English constituents; the multiplicity of Arabic forms(a)……(f) under(18) is due to the fact that unlike English, Arabic does not seem to have grammaticalised modality hence a variety of lexical items are used to express the meaning of a single English modal auxiliary.

Arab grammarians have not recognized modality as a grammatical category notwithstanding scattered references they made to the semantics of certain modal particles like (قد/qad/) and (ربما/rubbàmaa)/.
(El-Hassan, 1990:164)
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The Arabic form (ربما/ر) is probably the nearest equivalent of the English may. Its use is subject to certain syntactic constrains:

- It is normally followed by a verbal sentence introduced by a verb form, as in ربما يكون المدير في البيت
- It can be followed by a nominal sentence introduced by the complementizer أن as in ربما أن المدير في البيت

The modal particle قد qad is always followed by a verb form hence قد يكون المدير في البيت followed by nonpast tense, قد qad normally conveys the epistemic sense of uncertainty; it casts doubt on the likelihood of the existence of the state or occurrence of the event. This is contrast with the المدير في البيت. قد كان المدير في البيت

Now consider the following example:
The manager must be at home.

(Palmer 2001:44a) paraphrases this use of epistemic must as: The only possible conclusion is that the manager is at home.
The corresponding paraphrase in Arabic is:
لا بد أن يكون المدير في البيت

In this modalized expression the speaker is suggesting that the basis of available evidence can be concluded that the manager is at home, he force of this modality might approach certainty but is not equivalent to certainty; it allows for an error margin, however slight it might be, both English must and Arabic لابد share these semantic implications:

Of course, no past tense can be derived from must and in order to signal conclusion/inferences having to do with past-time states or events the expression:

(Must + have + past participle) is translated so as to find in Arabic equivalent as (لابد + past tense)

Consider (19) and (20) below:

19-The manager must have been at home.
لا بد أن المدير كان في البيت

20-The Arabs must have settled here
لا بد أن العرب مستوطنون هنا

1-3-2 Deontic modality
As Lyons (1977:792) remarks, deontic models are concerned with the necessity or possibility of acts performed by morally responsible agents. Thus, they are used to express desires, wants, commands, obligation, necessity, undertaking and permission.
They include must; may and can of permission; should/ought to, daren't, needn't and shall of undertaking.
1-3-2-1 Permission

This subcategory of deontic modality is expressed, by means of the modals ‘may’ and ‘can’. Consider the following example:

You may come in.

He may borrow these books again if he wishes.

You can see her now.

In English, deontic may is more formal than can (Palmer 1990:78).

The use of can for permission is more frequent in speech, notably dialogue. It is rather difficult to find Arabic equivalents of may and can which bring out this stylistic difference. But since can has semantic associates with physical ability elsewhere, it seems reasonable to translate it in Arabic by using بوسعك or بوسعك بامكانيه, both of which combine features of ability and permission simultaneously. لك, which seems more formal than بوسعك, can then be used as the equivalent of may, compare:

• You may cross – examine the witness.

• You can come in now.

1-3-2-2 Undertaking:

Shall is a deontic modal and is restricted to 2nd and 3rd person subjects in assertion (Quirk et al 1985: 230, 815). By using shall, a speaker does not merely lay an obligation, but gives an undertaking, or guarantees that the event will take place. In this use, the speaker seems to issue orders, as exemplified by (21a). This is why Palmer (1990: 74) thinks of shall as stronger than must. Quirk et al (1985: 230) describe that shall can be used in granting a favour (21b) or in making threats (21c). In these cases, shall sound archaic and ‘authoritarian’ in tone.

(21) a. You shall do exactly as I say. (Quirk et al 1985: 230)

b. She shall get her money as soon as she has earned it. (ibid)

c. You shall suffer for this! (ibid: 815)

Shall has a further restricted use, with a third person subject, to stipulate regulations or legal requirements, as shown by (22). Quirk et al (1985: 230) call such texts as ‘legal or quasi-legal discourse’. In this use, shall is semantically close to must. Palmer (1990: 74) makes a similar statement that shall is the regular formulaic form in regulations”.

(22) a. The 1947 act shall have effect as if this section were included in part III thereof. (W.14.1.54, from Palmer 1990: 74)
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b. The vendor shall maintain the equipment in good repair. (Quirk et al. 1985: 230)

The deontic modal *shall* in interrogation asks, non-performatively, if the hearer imposes an obligation or make an undertaking (Palmer 1990: 77). In this case, there is a switch with the deontic source from speaker to hearer (Quirk et al.’s 1985: 815). Compared with *must* and *have (got) to*, the situation with *shall* is more simple, as illustrated in (23). Quirk et al. (p. 815) paraphrase such sentences as ‘Do you want me to …?’ or ‘Would you like me to …?’

(23) a. Shall I receive it tomorrow? (Palmer 1990: 77)

b. Shall I switch off the television? (Quirk et al. 1985: 815)

Quirk et al. (1985: 815) point out two particular features with the interrogative use of *shall*. First, it occurs almost exclusively with the first person subjects. Secondly, its question is not symmetrical with its response, since it is not repeated in the answer. The expected response after the interrogative *shall* is agreement or a second person imperative (for *shall I* and exclusive *shall we*), as exemplified by (24a), or 1st person imperative (for inclusive *shall we*), as shown by (24b).

(24) a. Shall we carry your suitcases? - Yes, please do (so). (Adapted from Quirk et al 1985: 815)

b. Shall we have dinner? - Yes, let’s. (ibid)

According to Palmer (1990: 79), the interrogative form of *shall* is also used to make a proposal, asking the hearer if he would wish the speaker to act, as illustrated by (25). Quirk et al. (1985: 815) call it ‘inviting or requesting agreement’. In this use, the hearer is asked to take the responsibility for the suggested action. The sentence does not ask for information, but requests the hearer’s decision concerning the speaker’s future action (Palmer 1990: 79).

(25) a. Shall we eat now? (Quirk et al. 1985: 815)

b. Are you going to leave him a message or shall I say something? (Palmer 1990: 79)

In Arabic the modal particle *sawfa /sa* is used to give an undertaking, for example, a promise, a guarantee, or a threat.

- الكافئ 2 (حكلا سوف يفعلون)
  But you shall know. (Dawood 1974:27)

- يوسف 32 (ليس يفعلوا من الصاغرين)
  He shall be thrown in prison and held in scorn. (Dawood 1974:41)

- سوف يستلم علي الهدية غدا.
  Ali shall receive the present tomorrow. (promise)
1-3-2-3 Obligation / Necessity:

Deontic obligation/necessity can be expressed by using the modal auxiliary ‘must’.
Consider the following examples:
26-a. You must be more careful in future.
   عليك أن تكون أكثر حذرًا في المستقبل.
   يجب عليك أن تكون أكثر حذرًا في المستقبل.
27-a. You must leave right now.
   عليك أن تذهب فورًا.
   يجب عليك أن تذهب فورًا.
The examples at 26a and 27a are respectively equivalent to the commands at 28 and 29
28- Be more careful in future.
   كن أكثر حذرًا في المستقبل.
29-Take this medicine three times a day.
Arabic equivalents of deontic must are the following:
Either (بكون + أن)
Or (كل + عليك) يجب

You must leave right now is ambiguous; it admits to interpretations depending whether must is deontic or epistemic. The Arabic equivalents are:
30a) عليك / يجب (عليك) أن تكون حذرًا في المستقبل
   لابد أن تكون حذرًا في المستقبل

Two other modal auxiliaries should and ought to are exponents of a mild obligation in comparison with ‘must’ which conveys a strong obligation consider the following examples:
31- He should / ought to call the doctor.
   ينبغي أن ينضج الطبيب.
32- I should / ought to resign.
   ينبغي أن أستقيل.

The equivalents of must in Arabic are يجب على + pronoun’, whereas should / ought to is ينبغي. The form in Arabic expresses the subject’s obligations or duty, just as much as ‘should / ought to’ does in English. (Thomson &Martinet 1979:135)

It is by now evident that should and ought to have been used interchangeably have very similar meanings. The y are used to express obligation and duty to give advice and in general, it is right or good for people to do (M.Swan, 1980:550) further evidence of their similarity of meaning is added from the fact that questions or remark with ought to can answered with should .Consider the following example:
33-You ought to read this book.
   ينبغي عليك أن تقرأ الكتاب.
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It must be added that from a deontic point of view and its English equivalents seem to constitute marginal modal of obligation. As mentioned above, deontic is compatible only with non-past events hence (34) below does have a past time correlative.

34-You must do it.

It is true that (34) is grammatical, but conveys an epistemic not deontic modality.

35-A. You must be tired.

لا بدر/لا شك أنك متعب أو أنك متعب.

B. He must have been so worried about the test. (I'm sure he was worried)

لا بدر أنت ألق كل خير من الامتحان.

Must in the above two examples is used for high positive likelihood (certainty), the speaker is confident of what he is saying, which is based on deduction from facts.

The negative counterpart of this sense of must is can't, which expresses high negative likelihood.

36-A. She can't be a wake.

من المستحيل/لا يعتبر أن تكون مستيقظة.

B. He can't type the all the letters.

من المستحيل أن يكون قد طبع كل الرسائل (Khalil, 1999: pp220-221)

CONCLUSIONS:

This study has arrived at the following findings:

First, two kinds of modality epistemic and deontic are widely accepted and acknowledged as the two most semantically fundamental kinds of modality.

Second, most modals have both deontic and epistemic readings. This suggests that the modals differ from each other only in their strength, i.e. in what stands in the place of necessary or possible in the formulae. For example:

John may have a driving licence.

• Deontic reading (=he is allowed to have a licence)

Possible [John have licence]

Judging by what is appropriate (i.e. by law), it is possible for John to have a licence.

• Epistemic reading (=maybe he has a licence):

Possible [John have licence]

According to the available evidence, it is possible that John has a driving licence.

Third, modals in English are “grammatical auxiliaries”, in Arabic they are mostly “lexical”, and hence a variety of lexical items are used to express the meaning of a single English modal auxiliary.
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References


الملخص

الصيغية الأسلوب الذي يستعمل فيه المتكلم الفعل الصيغية مثلا might وظروفا مثل might. تهدف هذه الدراسة إلى تفهم اللغة العربية واللغة الإنجليزية من ناحية الاتجاه والاختلاف.

1. وصف الصيغية الإنجليزية المعرفية للغة الإنجليزية واللغة العربية والصيغة العربية.

2. مساعدة اللغة الإنجليزية للمتعلم للغة العربية في التعرف على الأفعال.

3. تسهيل مهمة الطالب للترجمة من اللغة الإنجليزية إلى العربية.

وتهدف هذه الدراسة إلى تفهم اللغة الإنجليزية من ناحية الاتجاه والاختلاف.

الفعل Might

. استخدم فقط لعبير عن الصيغية المعرفية بينما في اللغة العربية المساعدة الصيغية.

May and Must

لا يوجد مصطلح باللغة العربية لمستعمل مصطلح modal/Modality، إلا النحو الذي يُعتبر من النحو النموذجي في اللغة العربية لمستعمل مصطلح في اللغة الإنجليزية.

الصيغة الاتجاهية

لا يوجد مصطلح باللغة العربية لمستعمل مصطلح "الاتجاهات" من النحو النموذجي في اللغة الإنجليزية. لا يوجد مصطلح باللغة العربية لمستعمل مصطلح من النحو النموذجي في اللغة الإنجليزية. الكليات

مجلة كلية التربية الأساسية، المجلد 19، العدد التاسع والسبعون.