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# Non-assertive Epistemic Adverbs and Deontic Necessity

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**ABSTRACT:** The non-assertive epistemic adverbs, which functions as discourse items expressing specific speech acts has important effects on the deontic necessity markers. The non-assertive modal adverb may function as a speech act defining issue or makes change in the modal value of the sentences, whereas the assertive modal adverbs can not be used as sentence adverbials with the deontic necessity items and they do not assign any speech act values to the utterance. The statement is exemplified by the use of the assertive and non-assertive modal adverbs with deontically necessitive sentences in different languages, English and Turkish, respectively. We claim that internal semantic structure of the epistemic adverbs is determinant on their syntactic position and relation to TAM markers.

## 0. Introduction

Discourse particle can be defined as “any lexical item or grammatical form which typically serves to relate the utterance to another in a discourse or to relate the utterance in a particular way to the discourse as a whole” (Trask, 1993). Epistemic modal adverbs such as *perhaps*, *maybe*, *certainly*, *sure*, *surely* etc. are analyzed under the label of discourse markers. The aim of the study is to define the difference in the use of assertive and non-assertive epistemic modal adverbs with their use of the deontic necessity in English, and Turkish, thus show that the semantics of these items are important in their use.

We suggest that the assertion status of the modal adverb affects the function of the modal adverb with the TAM markers, i.e. the functional heads in the sentences. Since we are concerned with the epistemic modal adverbs, we are going to analyze the modal heads in the sentences in relation to the modal adverbs. The relation between the adverbs and the functional heads has been analyzed by the SPLIT inflectional hypothesis (Pollock, 1989). Cinque (1999) also analyzes adverbs in relation to the functional heads and suggests a hierarchy among adverbs depending on the heads to which they are related. Cinque (1999) makes a syntactic analysis without taking the semantic content of the adverbs in

the second place. Our main question is why adverbs of the same group, i.e. epistemic modal adverbs, fall into different domains in the hierarchy. It is suggested here that this phenomenon is related with the internal semantic structure of the adverbs. Due to this hypothesis, we suggest that the assertion status of the epistemic modal adverbs determines the functional head that they are going to govern.

In the first part of the study, we define the basic notions in the study. In addition to that we quote the discussions made on the scope of the modal adverbs. In the second and third sections, the assertive and non-assertive epistemic modal adverbs are analyzed in relation to the deontic modal markers and the speech act values that they perform are explained. Finally, we the knowledge based non-assertive epistemic adverb *maybe* is analyzed in a different section since it is different in terms of the speech act values from the other non-assertive adverbs.

## 1. Basic Notions

Modality in language is the speaker's attitude towards the proposition expressed in the sentence. Languages mark modality by modal verbs, mood, modal suffixes, and particles and clitics (Palmer, 2001). Modal adverbs may be included among modal particles, as non-propositional expressions of modality (Kiefer, 1987).

Kiefer (1987) focuses on the scope relation of the non-propositional attitudinal operators (e.g. *fortunately*, *probably*, etc.) and logical operators (e.g. quantifiers as *often*, *always*, etc.), and marks the sentences (1a) and (2a) as ungrammatical due to the scope relation,

- (1) a. \*John is often probably sick.  
b. Probably, John is often sick.
- (2) a. \*Bill always fortunately lives in nice places.  
b. Fortunately, Bill always lives in nice places

Assertion is one of the basic notions in the discussion of epistemic modality. An assertive utterance denotes that speaker commits himself to the

truth of the proposition expressed in the utterance. In an epistemic utterance, the speaker may or may not assert the truth of the proposition. S/he may do this depending on his knowledge or belief. Palmer 1986 shows the categorization of the epistemic adverbs in English in the following table which is adopted to the Turkish adverbs by Ruhi et. al. (1997).

	<b>Assertion (confidence)</b>		<b>Non-assertion (weak confidence; lack of confidence)</b>
<b>Knowledge- based</b>	MUTLAKA (absolutely)	HERHALDE (perhaps)	BELKI (Maybe)
	MUHAKKAK (certainly)		
<b>Belief-based</b>	KESINLIKLE (definitely)		GALIBA (probably)
	ELBETTE (surely)		SANIRIM (I guess)

Pollock (1989) suggests that the adverbs, including modal adverbs, have scope over the TAM markers, and has a determinant role over these markers. Similarly, Cinque (1999) defines the relationship between the adverbs and shows that the hierarchy among the functional heads such as TAM markers is applicable to the adverbs as well. The hierarchy among functional heads suggested by Cinque and the adverbs that are related to these heads, which show a parallel hierarchy, can be shown as in (3).

- (3) [ *frankly* Moodspeech act [ *fortunately* Moodevaluative [ *allegedly* Moodevidential [ *probably* Modepistemic [ *once* T(Past) [ *then* T(Future) [ *perhaps* Moodirrealis [ *necessarily* Modnecessity [ *possibly* Modpossibility [ *usually* Asphabitual [ *again* Asprepetitive(I) [ *often* Aspfrequentative(I) [ *intentionally* Modvolitional [ *quickly* Aspcelerative(I) [ *already* T(Anterior) [ *no longer* Aspterminative [ *still* Aspcontinuative [ *always* Aspperfect(?) [ *just* Aspretrospective [ *soon* Aspapproximative [ *briefly* Aspdurative [ *characteristically(?)* Aspgeneric/ progressive [ *almost* Aspprospective [ *completely* AspSgCompletive(I) [ *tutto* spPICompletive [ *well* Voice [ *fast/early* Aspcelerative(II) [ *again* Asprepetative(II) [ *often* Aspfrequentative(II) [ *completely* AspSgCompletive(II) (Cinque 1999: 106)

We suggest that the semantic content of the adverbs is determinant on their use with the heads in such cases. We are mainly concerned with the relation between the epistemic adverbs and the modal heads that they are in relation as shown by Cinque (1999). Our main question on this hierarchy is ‘how do epistemic particles in relation to the head Modepistemic affect the Modnecessity when they are used in the same sentence’. We claim that assertion status of the adverb is determinant on this relation.

## 2. Assertive Epistemic Adverbs

Since we are going to analyze the co-occurring patterns of epistemic adverbs, and the deontic necessity expressions in Turkish and English, we should first define the expressions of deontic modality in the two languages. English marks modality by a developed system of modal auxiliary and modal adverbs, whereas Turkish uses modal affixes, modal adverbs, and some lexical items. The deontic necessity is marked by the modal auxiliaries *must*, *should*, *have/have got to*, *ought to*, *need to*, and *bound to*. The markers of deontic necessity in Turkish are modal suffix *-mEll*, modal adverb *mecburen* (*compulsorily*), and lexical items *gerek* (*necessary*), *zorunda* (*obligatory*) and the derivations of these items.

The assertive epistemic adverbs may function as verb or sentence adverb in the deontically modal sentence in both of these languages as in the example (4).

(4) a. Daha çok çalis *mali* sin.(deontic)

much more work- nec- 2 nd sing.

You have to study much harder.

b. **Kesinlikle/mutlaka/muhakkak/elbette** daha çok çalis  
*mali* sin. (deontic)

c. You **absolutely/certainly/definitely/surely** have to  
study much harder./

**Absolutely/certainly/definitely/surely** you have to study  
much harder

In these sentences, the epistemic adverbs assert the truth of the modal statement. That is to say, these adverbs strengthen the modal reference in the deontic utterance. The utterance may be understood in two ways: the speaker is expressing that the necessity to study harder for the hearer exists, or strengthens the necessity for the hearer to study hard, and has the implication that the speaker has authority on the hearer. However, both of the utterances have deontic reference, with no special speech-act value.

The paraphrase of the utterance (4) can be made as 'it is certain/absolute/sure that you have to study hard'. The epistemic value of the utterance is low and weaker compared to its deontic value. The other examples of this can be given as in (5)-(7):

(5) Context: (Taken from a text defining the process of  
preserving food.)

a. K conserve iyi pisiril *meli*. (deontic)

b. K conserve **mutlaka** iyi pisiril *meli*. Yoksa, çok çabuk  
bozular. (deontic)

c. The preserve must **absolutely** be cooked well.

Otherwise, it'll go bad soon. (deontic)

- (6) Context: (The doctor gives orders to the patient for the use of medical treatment.)
- Bu ilaç *içilmelidir*. (deontic)
  - Agrılar tamamen geçene kadar bu ilaç **kesinlikle** *içmeli*. Ayrıca diyete de uyacaksınız.(deontic)
  - These pills **definitely** *should* be taken till the pain is completely over. Moreover, you have to follow the diet. (deontic)
- (7) Context: (The speaker is telling her/his friend about the illness that her/his mother suffers from.)
- Doktora görünmesi *gerek*. (deontic)
  - Annem çok hasta. İki haftadır çok ağrısı var.**Kesinlikle** doktora görünmesi *gerek*. (deontic)
  - Mom is very sick. She had terrible pain for the last two weeks. **Certainly**, she has to see a doctor. (deontic)

The logical formulation of sentences (5)-(7) is **certainly** *nece* *de* *gerek* *dir*. Another point is that when the adverbs stand in the sentence initial position there is a pause just after the particle and they are rare in sentence initial position. That is to say, assertive modal particles are used as verb adverbs with closer relation with the verb phrase rather than the whole proposition.

### 3. Non-assertive Epistemic Adverbs

Non-assertive epistemic adverbs have different functions when they occur with deontic necessity than the assertive ones. The non-assertive adverbs cannot be used as a verb adverb with close relation with the verb itself in a deontic utterance. They have to take the whole proposition under their scope. The deontic utterance (4) becomes epistemic when a non-assertive epistemic adverb replaces the assertive one, e.g.:

- (4') a. Daha çok çalışmalisin. (deontic)  
 much more work- nec- 2<sup>nd</sup> sing.  
 You have to study much harder.
- b. **Galiba/herhalde/sanırım/** daha çok çalışmalisin. (deontic)  
 You **Perhaps/probably/I guess** have to study much harder./  
**Perhaps/probably/I guess** you have to study much harder.  
 (epistemic)

In (4') the speaker is not certain about the truth of the utterance. The speaker is making a guess on the existence of a necessity of studying hard. Thus, the utterance is epistemic rather than deontic. (4') can be paraphrased as 'it is possible that you have to study harder', with the logical formulation of **pos nec p**. Other examples of this kind are as follows:

- (8) Context: (While Julia and Susan are chatting, Susan's ex-boyfriend enters the room and sits at the table.)
- a. Ben artık git *me*liyim. (deontic)
- b. **J:** Ben, **galiba** git*me*liyim. (epistemic)  
**S:** Hayir, gitmen filan gerekmez.
- c. **J:** **Perhaps** I *should* go. (epistemic)  
**S:** No, there is no need for you to leave.
- (9) Context: (Tommy who knows in which the house that Celine lives with her family is not suitable for a baby, says to Celine who is pregnant:)
- a. Tasinmamiz *gerek*. (deontic)
- b. **Herhalde / Sanırım** tasinmaniz *sart* artik. (epistemic)
- c. **Perhaps / I guess**, you *must* move. (epistemic)
- (10) Context: (The speaker sees his/her mother approaching him/her holding an envelope.)
- a. Postaneye ugramam *gerekiyor*. (deontic)
- b. **Sanırım** postaneye ugramam *gerekiyor*. (epistemic)
- c. I guess, I should stop at the post office. (epistemic)

In the example (4') and (8) – (10) the speaker makes judgment on the truth value of the proposition. When the speakers modify the necessity meaning with the epistemic judgment the speech act value of the utterance also changes. The utterance is interpreted as questioning the existence of the necessity of the act in question. The modal source of the necessity is marked as somebody except from the speaker since s/he is not committed to the truth of the necessity. In example (8), the hearer responds “no”, which shows “yes-no questioning” interpretation of the epistemic adverb.

As all other epistemically modal utterances, the utterances (8) - (10) can be analyzed as the following in terms of the relevance theory. Thus, the epistemic status of the utterances can be clarified:

- (i) S has said p
- (ii) There is an expression q, more informative than p (and thus q entails p), which might be a desirable as a contribution to the current purposes of the exchange.
- (iii) q is of roughly equal brevity to p he would be in breach of the injunction to make his contribution as informative as is required, S must mean me, the addressee, to infer that S knows that q is not the case ( $K\sim q$ ), or at least that he does not know that q is the case ( $\sim Kq$ ). (Levinson, 1983: 135)

In the case of non-assertion the speaker (S) does not know that q is the case, i.e. ( $\sim Kq$ ) is applicable to the examples (9) – (12).

An important point here is that, the epistemic adverbs in (4') and (9) - (12) are belief-based adverbs, as shown in table in section 1. Knowledge-based *maybe (belki)*, on the other hand, behaves different in this term.

#### **4. Maybe: A Knowledge-based Adverb**

We have noted that the assertive and non-assertive modals behave different in terms of their occurrence, modal reference, and their speech act values with the deontic modals. Another distinction to be made within the non-assertive modal adverbs can be made in terms of belief based or knowledge based status of the epistemic adverbs. While the knowledge based non-assertive epistemic adverbs questions the existence of the necessity, *maybe (belki)* or usually used with the clitic *de* as *belki de* with the deontic necessity) indicates a

doubt. *Maybe (belki)* is more likely to create a world (Kratzer, 1991) rather than asking the existence of a necessity.

The different status of this particle is also observed in the hierarchy suggested by Cinque (1999). *Maybe* is related to the irrealis mood in that schema. However, in the examples (11), (12) *maybe* seems to mark an offer, or a proposal.

- (11) Context: (The mother who does not want to talk to her son about the financial problems.)
- a. Bunlardan daha sonra söz *etmeli*. (deontic)
  - b. Bunlardan daha sonra söz *etmeli belki de*. (epistemic)
  - c. **Maybe**, these *should* be mentioned later.
- (12) Context: ( 1. The old man who has worked a lot and got very sick says to his son / 2. The man wants his son to take over the job.)
- a. Biraz yoruldum ve daha az çalış *mali* yim.(deontic)
  - b. **Belki de** biraz yoruldum ve daha az çalış *maliyim*.(epistemic)
  - c. **Maybe**, I got tired and *should* work less. (epistemic)

In (12), mother who does not want to talk about financial problems seem to offer speaking that subject later, and thus expresses that she does not want to do it at the moment of speaking. Thus, she rejects to speak to her son gently. In the same way, the old man is making an offer to his son about his taking over the job in (12), since he got tired. The use of clitic *de* in the Turkish versions of the sentences clearly shows this status of the sentence. Thus, (11), (12) should be paraphrased as ‘it is possible that it is the case that X is necessary’.

## 5. Conclusion

In our study, we analyzed internal semantic structure of the adverb claiming that it is an affective and determining factor in this process. We suggest that assertion is a major factor in determining the relation between the modal adverb and the modal head. The Turkish and English data shows that assertive epistemic adverbs are not effective on the modal value of the utterance; however, non-assertives have scope over necessity in that they change the interpretation of the modal statement into a question or an offer depending on the basis of non-commitment: belief or knowledge. However, a more detailed research with other modal values such as ability, capability, or volitionality.

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