TÜRKİYE TÜRKÇESİNDEKİ BİLGİ KİPLİĞİ İŞARETLEYİCİLERİ ÜZERİNE: KESİNLİK DIŞILIK

Caner KERİMOĞLU•

ÖZET

Kiplik dilbilimin tartışmalı kavramlarından biridir. Farklı ölçülere göre farklı tanım ve tasnifleri yapılmıştır. Çeşitli görüşler olsa da iki temel kiplik türü üzerinde görüş birliğine varıldığı söylenebilir. Bunlardan ilki konuşurun önermeye dair bilgi ve güvenine dayanan bilgi kipliği (epistemic modality), diğeri ise konuşurun önermeye dair isteğine dayanan yükümlülük kipliğidir (deontic modality). Bu çalışmada Türkiye Türkçesiyle ilgili olarak bir bilgi kipliği araştırması yapılmıştır. İncelemede konuşurun önermeye dair bilgi ve güven eksikliğini işaretleyen işaretleyiciler belirlenmiş ve bu işaretleyicilerin kesinlik dışılık (uncertainty) bildirirken hangi anlamsal çerçeveler için kullanıldığı tartışılmıştır.

Anahtar Kelimeler: Türkiye Türkçesi, kiplik, bilgi kipliği, kesinlik dışılık, kesinlik.

ON THE EPISTEMIC MODALITY MARKERS IN TURKEY TURKISH : UNCERTAINTY

ABSTRACT

Modality is one of the problematic concepts of linguistics. Various definitions and categorizations are made based on different criteria. Although there are different point of views linguists have agreed on the main kinds of modality. One of them is the epistemic modality which is based on the knowledge and belief of the speaker related with the proposition. The other one is the deontic modality based on the will of the speaker about the proposition. In this study, epistemic modality in Turkey Turkish has been examined. During this study, the markers which point out the lack of knowledge and

• Yrd. Doç. Dr., Dokuz Eylül Üniversitesi, Buca Eğitim Fakültesi, Türkçe Eğitimi Anabilim Dalı, canerkerimoglu@yahoo.com

belief of the speaker on the proposition are determined and the semantic purposes they used for are questioned when they report uncertainty.

Key words: Modality, epistemic possibility, uncertainty, Turkey Turkish.

Introduction

The concept of possibility constitutes the main field of the modality literature along with the necessity (Lyons 1977: 787). Primarily, it can be said that the concept of modality which is handled in philosophy and logic disciplines is a new problematic subject for the study of linguistics (de Haan 1997: 4). It is known that the disciplines of logic and linguistics approach to modality differently and focus on the different subjects although the philosophy of language which is a branch of modal logic constitutes the basis of linguistic modality: "The logical tradition concentrates on the description of propositions. Consequently, the inquiry into modality is restricted to what may be considered to be 'propositional' in modality. The linguistic tradition, on the other hand, emphasizes the 'non-propositional' aspects of modality. It is pointed out that modal expressions in natural language are mainly used to express the speaker's attitudes toward states-of-affairs." (Kiefer 1987:67). As Kiefer stated, modality is generally accepted as a category related with the knowledge and comment of the speaker in language studies. Modality which is examined as a concept concerned with the verb in language studies is evaluated with the terms mode and mood. Furthermore, these three terms sometimes replace one another (Payne 1997: 244). But modality is a higher and broader field; mood includes a less broader field which marks modality: Mood (mode) "refers to a formally grammaticalized category of the verb which has a modal function…Modality, on the other hand, is the semantic domain pertaining to elements of meaning that languages express" (Bybee-Fleischman 1995: 2).

There are pragmatic, semantic, typological and logical kinds of approaches to modality and every approach describes a place for modality according to its own point of view. Mood is only one of the modality markers though the morphologic and morpho-syntactic markers of modality are examined under the name of mood (mode) in grammars. It is assumed that this concept covers a semantic domain which is so broad and cannot be restricted to one field (morphology, syntax, phonetics etc.) (Saeed 2003: 136-136; de Haan 2006: 32).

It is possible that we can encounter with the different descriptions of modality because describing modality is more difficult than describing the other verb categories like tense and aspect. Its features like not being marked with a single paradigm and its being more abstract than the other categories are among the reasons which make its description more difficult: ""…modality…which is much more loosely structured and in fact probably belongs at a higher level of abstraction than categories such as time and (types of) aspect" (Nuyts 2006: 1). Although it is hard to find, one of the frequently used descriptions of modality is that: "Modality is the grammaticization of speaker's (subjunctive) attitudes and opinions." (Bybee et al. 1994: 176)[1].

The categorization of kinds of modality varies as well. The categorizations of modality in linguistic studies are mainly based on the two divisions in Jespersen (1924): "1. Containing an element of will (jussive, cumpulsive, obligative, permissive, etc.) 2. Containing no element of will (apodictive, necessitive, assertive, presumptive, etc.)" (Jespersen 1924: 320-321). It can be stated that the place of the division between possibility and necessity in modal logic is replaced with the *epistemic* (containing no element of will) and *deontic* (containing element of will) couple in the linguistic modality studies. Epistemic modality focuses on the belief or the lack of belief related with the proposition the speaker stated (Coates 1995: 55). On the other hand, deontic modality is a field which focuses more on the speaker's psychological and mental condition than his/her knowledge. Kiefer distinguishes the two kinds of modality in this way: "Semantically, epistemic modality is based on the speaker's knowledge, deontic modality, on the other hand, on physical or mental states or outer circumstances" (Kiefer 1997: 241). (For general and historical information see Nuyts 2006, Traugott 2006).

1.   Yarın yağmur yağ**abil**ir. (Epistemic)

It may rain tomorrow.

2.   Buyrun, içeri gir**ebil**irsiniz. (Deontic)

Welcome, you may come in.

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[1] Narrog states that the modality definitions are based on the three basic approaches: "There is no shortage of definitions of modality, but one can distinguish at least the following three orientations, namely (i) definitions of modality in terms of ''speakers' attitudes'' (e.g., Jespersen 1992 [1924]: 313; Lyons 1968: 308), (ii) definitions in terms of ''actuality'', ''factuality'', ''validity'', or ''realis/irrealis'', that is, if a proposition is presented as ''actual'', ''factual'', ''valid''/''realis'' or not (e.g., Chung and Timberlake 1985; Kiefer 1987; Mithun 1999), and (iii) definitions in terms of the expression of possibility and necessity" (Narrog 2005: 678).

The same element (-*Abil*-) points out the tendency of giving permission of the speaker based on his/her will in the 2nd sentence while it marks prediction based on knowledge in the 1st one[2]. The statements of the speaker like optative, imperative or permissive which can be evaluated in the category of will are examined in the deontic modality while his/her knowledge based on statements like prediction or deduction concerning the factuality of the proposition are handled in the epistemic modality. The subcategories of modality markers are also studied differently by many researchers. F. Palmer, one of these researhers, examines those kinds statements in the field of epistemic modality: speculative, deductive, and assumptive. Also, he identifies five kinds of statements in the field of deontic modality: permissive, obligative, comissive, abilitive, volitive (Palmer 2001: 22).

Various suggestions for terminology are produced in the field of deontic modality while epistemic modality which becomes a traditional term takes place in most of the modality categorizations (see Lyons 1977, Coates 1983, Palmer 1986, Palmer 2001, Kiefer 1987, Kiefer 1997, Sweetser 1990, Kratzer 1991, Bybee et al. 1994, Bybee et al. 1995, van der Auwera et al. 1998, Papafragou 2000, Nuyts 2001, Frawley 2006, Portner 2009, van der Auwera et al. 2009, Nordström 2010). There are studies which use both deontic and dynamic modality (see Palmer 1986, 2001) while there are the ones which only use deontic (See Lyons 1977). Hofmann (1976) and Coates (1983) use the modality term "root" as a higher concept including deontic and dynamic. Steele (1975), Talmy (1988) and Sweetser (1990) also use the same term but only as the counterpart of deontic. On the other hand, J. Bybee handles the field of modality called deontic-dynamic-root in the modality literature with a twosome division of agent-oriented and speaker-oriented modality (Bybee et al. 1994, 1995).

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[2] There are similar usages also in other languages. For example, in English, modal verbs such as *must* and *may* are ambiguous in terms of epistemic and deontic modality. This is a very frequent cross-linguistic phenomenon. A marker's signalling different modalities causes various discussions among linguists. One of these discussions is whether one marker can be the origin of only one modality domain or not. The another discussion is the semantic map of a marker which marks different modalities. Which modality is the initial one? In literature, it is generally accepted that the semantic development is from deontic to epistemic modality (Bybee-Pagliuca 1985: 66-67). But de Haan asserts that these modalities are equal (de Haan 1997: 7-8). There are also researchers which criticize the traditional definitions and represent different development paths. (For these discussions see Narrog 2005: 677-731). It is a fact that it is impossible to accurately limit these semantic domains. As B. Jakobson stated, there will be many "borderline cases" or "straddlers" (Jacobsson 1979: 296) (For literature see Barbiers 2002: 1-18).

There are researchers who assert that the division between epistemic and deontic is inefficient in covering all of the modal statements (Mathews 2003: 66). In addition, new twosome modality suggestions are made in literature different from those modality types above: *Participant-external* & *Participant-internal* (van der Auwera et al. 1998, van der Auwera et al. 2009), *propositional* & *event* (Palmer 2001). Alongside these terms, some modality terms like *alethic* (von Wright 1951, Lyons 1977) *boulamaic* (Kratzer 1991), *subordinate* (Bybee et al. 1994, Bybee et al. 1995) are suggested and questioned.

In this study, we will focus on the kinds of statements in the domain of epistemic modality in Turkey Turkish. The divisions of the epistemic and deontic modality will be taken as the basis so there is no need for a new sub-categorization for the deontic domain. Besides, the kinds of modality called dynamic or root are also accepted as deontic modality.

The study will focus on the tools which the speaker uses to restrict the certainty of the proposition and to make it closer to uncertainty. It deals with the fields in which the speaker's knowledge and belief about the proposition are low like probability, deduction and assumption that are handled as epistemic modality in modality studies. On the other hand, it will ignore the markers (*mutlaka*, *kesinlikle*, etc.) which are used when the speaker's knowledge and belief are certain. The certainty degrees suggested in different studies about the epistemic modality (Holmes 1982; Hoye 1997; Rubin 2010) do not take place in the center of the study. They will be examined when they indicate different degrees of certainty. The scales of degree like *absolute certainty-high certainty-moderate certainty-low certainty-uncertainty* in Rubin (2010) and like *certainty-probability-possibility* in Holmes (1982) and Hoye (1997) will not be broadly represented. But the nature of possibility meaning will be mentioned. It will be dealt, when the markers indicate the probability nuances (strong > weak, for example *galiba* > *belki*). In the classification which will be made in this study, first of all, given markers are classified in terms of their structural and semantic features, and then the markers which report uncertainty in Turkey Turkish are questioned by giving sentence-based examples for each marker. Mainly, this study will try to find anwers to the questions that what kind of possibility meaning is added to the proposition by the epistemic possibility markers and which uncertainty fields are emphasized. The relation and harmony of the markers are not included in the study with regard to the article's extend.

1. Classification of Modality Markers in Turkey Turkish

It is known that various elements from morphology to phonology are used to signal modality in world languages. Especially, typologic studies focus on the kinds of expressions which give the meaning of modality in all the languages. de Haan (2006) defines the modality markers as following: 1. Modal auxiliary verbs 2. Mood 3. Modal affixes 4. Lexical means 5. Modal adverbs and adjectives 6. Modal tags 7. Modal particles 8. Modal case (de Haan 2006: 32-41).

This list mostly consists of morphologic, lexical and syntactic elements. Also phonetic tools like stress and intonation are used to indicate modality in languages (see Coates 1983; Palmer 1986; Bybee et al. 1994).

In Turkish, there are many modality expressions which can be examined in different categories but there are no modal auxiliary verbs such as *must, may* in English. D. Corcu (2003) categorizes the modality markers in Turkish under these four headings: "Modal inflection on the verb, particles, lexical items, and intonation." (Corcu 2003: 68). S. Aslan-Demir makes a more elaborate list: "Morphological markers, lexical markers (modal predicates, modal adverbs and modal expressions), morphologic-lexical markers, syntactic markers, the markers based on syntax and lexicon, the markers based on syntax-lexicon-morphology and the markers based on expression" (Aslan-Demir 2008: 17-20). L. Johanson (2009) classifies modals in Turkic languages under two titles. One of them is synthetic markers which include suffixes. The other title is analytic (periphrastic) markers which are generally formed with auxiliary words like *gerek, lazım, ol-*. Johanson (2009) deals with three modal expressions: volition, necessity, possibility (Johanson 2009: 487-510).

In Turkey Turkish grammarianship, there is a twosome division as indicative and subjunctive moods under the title of mood, although there is no special chapter for modality in grammars. The former category focuses on the suffixes which report tenses while the latter includes some of the expressions handled in the modality studies. The elements examined in the latter group are the imperative, optative, conditional and necessitive suffixes: *-sA (conditional/wish), -mAlI (necessitive), -AyIm /Ø/-sIn/-AlIm/-In(Iz)/-sInlAr (imperative), -A- (optative)* (Ergin 1993: 288-297; Ediskun 1999: 182-195; Gencan 2001: 325-326; Korkmaz 2003: 647-702).

Kornfilt (2001) and Göksel et al. (2005) are the two Turkish grammars which successfully reflect the expressions in the modern modality studies. J. Kornfilt examines following sub-categories under

the title of mood: *Indicative (absence of mood markers), conditional and wish marker -(y)sA, imperative -Ø/-In/-sIn(lAr), optative -A, intentional (no special form, same with optative), debitive -mElI, potential -(y)Ebil, certainty -mElİ, (y)Ebil, -DIr, assertive -DI, -mIş, -Ir, hortatory (no special form, same with imperative and potential), minority sakın, narrative -mIş, consecutive (-ıp için, dolayı), contingent -(y)Abil-* (Kornfilt 2001: 364-379).

Göksel et al. (2005) is the only Turkish grammar which includes a special part for modality among the grammars we have examined. The definition of modality in this study based on knowledge: "Unlike tense and aspect, modality is not related to the concept of time. It is concerned with whether a situation is presented as a directly known fact, or in some other way." (Göksel et al. 2005: 294). According to this, utterances are divided into two as modally neutral and modalized. The markers of modally neutral utterances are these: *(1) in verbal sentences: -DI, -(I)yor, -mAktA. (2) in nominal sentences: no marker or -(y)DI.* Modalized utterances are indicated in these ways: *(1) a generalization, general rule, or statement of principle: -(A/I)r/ -mAz, -DIr, (2) an assumption or hypothesis: -(A/I)r/-mAz, -DIr, olacak, olmalı (3) a statement concerning the possibility or necessity of the occurrence of an event or state: -(y)Abil/-(y)AmA, -mAlI (4) a statement based upon knowledge acquired indirectly: -mIş, -(y)mIş (5) an expression of desire or willingness for an event or state to occur: imperative, optative, conditional and aorist forms* (Göksel et al. 2005: 294-295).

In this study, the markers of epistemic possibility in Turkish will be examined under the morphologic markers, lexical markers and syntactic markers. These categories will be also divided into subcategories with regard to the common features of the markers.

2. Uncertainty Markers in Turkey Turkish

2.1.Morphologic Markers

2.1.1. Suffixes

2.1.1.1. -Abil- / -AmA-

In the studies of Turkish, it is asserted that there is also possibility meaning among the functions of this form which is examined under the title of ability, probability (Gencan 2001: 341; Korkmaz 2003: 818; Kahraman 2004: 113; Özsoy 1999: 84-85; Lewis 1976: 151; Underhill 1997: 404; Kornfilt 2001: 376; Göksel et al. 2005: 319; van Schaaik 2001: 167; Yavaş 1980: 144; Aksu-Koç 1988:

19). This form is used for most of the indefinite utterances (prediction, deduction, etc.)

> 1a. Ali kesinlikle yarın gelir.
>
> Ali definitely will come tomorrow.
>
> 1b. *Ali kesinlikle yarın gelebilir.
>
> *Ali may come tomorrow definitely.
>
> 1c. Ali yarın gelebilir.
>
> Ali may come tomorrow

This form is not in harmony with the certainty adverb *kesinlikle* 'definitely' in 1b and when the adverb is omitted, the sentence reports possibility. The fact that this form cannot be used with the adverbs of definiteness like *mutlaka*, *kesinlikle* which show the belief of the speaker to the proposition demonstrates that it reports uncertainty.

The negative of this form also provides interenting examples for probability:

> 2a. Ali yarın gelemez.
>
> Ali cannot come tomorrow.
>
> 2b. Ali yarın gelmeyebilir.
>
> Ali may not come tomorrow.
>
> 2c. Ali yarın gelemeyebilir.
>
> Ali may not/will be not able to come tomorrow.

The negative form *-AmA-* is used for *-Abil-* in 2a but for this sentence, both epistemic and deontic modality can be asserted. The same form comes after the negative suffix *-mA* in 2b and it marks only the epistemic possibility. There is a different situation in 2c because the positive and negative of the same form, *-Abil-* and *-AmA-* are used together. Nevertheless, these two forms mark different modality domains. The positive form of the suffix (*-Abil-*) marks the epistemic modality domain (uncertainty) while the negative -AmA- marks the deontic domain (ability). In Turkish modality studies, there is a common approach that one form can be used for many functions although there are other studies which criticize that approach and depends on the acceptation of "single form=single function" (Uzun 1998; Uzun et al. 2002). Although *-Abil-*'s marking different modalities (ability, possibility) gives birth to the comments that there can be two *-Abil-* forms (Kornfilt 1997; For discussions see Cinque

2001), this usage should be evaluated as polysemy rather than evaluating it in two different forms. Otherwise, we must talk about different forms for the different functions of the same form (permission, potential etc.).

The usage of *-Abil-* with morphemes except the aorist suffix *-(A/I)r* reports the deontic expression domains.

3a. Ali yarın gelebilecek.

Ali will be able to come tomorrow.

3b.Ali şimdi gelebiliyor.

Ali is able to come now.

The epistemic possibility cannot be mentioned for these examples in which the future tense morpheme *-(y)AcAk* and the present simple continuous tense morpheme *-(ı)yor* are used together. Therefore, the representation of epistemic modality of this form can be made as *-Abil-(A/I)r* (For more detailed usages of this form see Kerslake 1990; Güven 2001; Yarar 2001; Yarar 2005).

2.1.1.2. -DIr

This suffix which can be used both in nouns and verbs is called as the indicative suffix (copula) in the classical grammar studies and it is emphasized that it is used for the functions like certainty, possibility and assumption (Ergin 1993: 312; Korkmaz 2003: 728; Kahraman 2004: 140-141; Demir 2006: 386). However, there exist other sources which explain the functions of this suffix different from the explanations in the classical grammar studies (see Sözer 1980; Tura Sansa 1986; Tosun 1988; Bassarak 1997). J. Kornfilt deals with the relation of this suffix with certainty under the title of "degree of certainty" in the mood part of his grammar (Kornfilt 2001: 376). A. Göksel and Kerslake evaluate this morpheme among the markers which report assumption and hypothesis (Göksel et al. 2005: 295). In the linguistic studies which examine the relation of this morpheme with modality, we encounter with its common feature indicating certainty and possibility (Sansa Tura 1986, Aydın 1996, Sebzecioğlu 2004). Which function the suffix marks from certainty or possibility can be understood with the context. *-DIr* can be used both in nominal and verbal sentences.

4a. Ali yorgundur.

Ali must/may be tired.

4b. Ben yorgunumdur.

I must/may be tired.

4c. Sen yorgunsundur.

You must/may be tired.

4d. Ali yorgun.

Ali is tired.

In the classical grammar studies, *-DIr* is evaluated as a copula which indicates the third person and the present simple continuous tense. However, as it is seen in the examples 4b and 4c, this form cannot be a copula in relation with the third person. *-DIr* can also be added to the predicates inflected with the second or the third person. Moreover, the indicative function of this suffix is another matter of debate. In 4d, it is observed that the third person marking can be made even with a zero morpheme. Therefore, the first function of *-DIr* suffix is not indication. This form is an epistemic modality marker which reports the belief of the speaker to the proposition. The three sentences in 4a-b and c are open to discussion. These sentences can be in harmony with both the markers of certainty and uncertainty.

4e. Sen belki yorgunsundur.

Maybe you are tired.

4f. Sen kesinlikle yorgunsundur.

You must be definitely tired.

The form also comes after the suffix of aspect-tense in the verbal sentences.

4g. Ali yarın gidecektir.

Ali will / may leave tomorrow.

4h. Ali yarın herhalde gidecektir.[3]

Ali will probably leave tomorrow.

4k. Ali yarın kesinlikle gidecektir.

Ali will definitely leave tomorrow.

4l. Ali yarın gidecek.

Ali will leave tomorrow.

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[3] Although *belki* and *herhalde* have similar semantic features, *-DIr*, which is not in harmony with *belki*, can coordinate with *herhalde* in 4h. The harmony between the modal suffixes and modal adverbs in Turkish represents different usages.

4g can be evaluated in two ways. When *-DIr* comes after the future tense suffix *-AcAk*, it merely makes the sentence open to the epistemic commentary. The example 4g in which the suffix is used can be only interpreted with the epistemic domain while 4l in which the suffix is not used is open to both deontic (imperative) and epistemic (degree of certainty) interpretation. The epistemic domain in 4g is not clear. The degree of certainty is indicated by the addition of the other markers as it is done in nominal sentences. *-DIr* can be in harmony with both certainty and uncertainty adverbs in verbal sentences as well.

2.1.1.3. -(A/I)r / -mAz

These morphemes which are traditionally called as the aorist suffixes in the Turkish grammars are also important for the domain of modality. The function of these morphemes is problematic because the concept of simple present tense is also problematic, so there are different interpretations on the tense marked by these suffixes (for discussion see Uzun 2004: 161). M. Ergin asserts that the simple present tense suffixes indicate a mood expression close to the subjunctive mood for their indication of possibility instead of certainty, after saying "(it means) there are also the expression of possibility in the simple present tense suffixes" (Ergin 1993: 376). When the domains of modality expressions indicated by this form are written, the modern modality studies focus on the kinds of expressions corcerned with both the deontic and epistemic domain like volition (Yavaş 1982), neigung (tendency), absicht (purpose), möglichkeit (possibility) (Johanson 1994: 255), assumption, hypothesis (Göksel et al. 2005: 295), possibility (Aksu-Koç 1988: 18; Sebzecioğlu 2004), istek (optative) (Aslan-Demir 2008). L. Uzun and Z. Erk Emeksiz, who criticize the definitions in grammars concerning this suffix and decide that *-(A/I)r* does not mark tense and aspect, point out that this suffix is the marker of objective modality in generic statements and it is the subjective modality marker when it reflects the subjective attitude of the speaker (Uzun et al. 2002: 139-143).

5a. Ali buraya gelir/gelmez.

Ali comes / does not come here.

5b. Ali buraya kesinlikle gelir/gelmez.

Ali definitely comes/does not come here.

5c. Ali buraya muhtemelen gelir/gelmez.

Ali probably comes/does not come here.

5d. Ali buraya gelir mi gelir.

Ali may come here.

As long as the suffix *-(A/I)r* is not distinguished with an element of language, its domain of modality are open to different interpretations (Akerson 1994: 84; Uzun et al. 2002). (For the relation between adverbs and modality see Lyons 1977; Aksu-Koç 1988; Giorgi et al. 1997; Uzun et al. 2002). For the sentence 5a, we can say that the speaker's knowledge about the statement is almost certain. Nevertheless, the expression of certainty will be weak as long as it is not completed with an adverb (*kesinlikle*, etc.). The suffix *-(A/I)r* is in harmony with an adverb which indicates the lack of belief and knowledge of the speaker and it provides possibility meaning for these kinds of usages, thus this suffix does not merely report certainty. Otherwise, a linguistic opposition should occur as in 1b.

In 5d, there is a different usage with the Turkish interrogative suffix *mI*[4]. It signals a low possibility which is not expected to occur. This construction is the repetition of the same verb with the aourist suffix. It can be also evaluated as a syntactic structure.

2.1.1.4. -AcAk

It is the future tense suffix of Turkish and its relation with aspect and modality has become the subject of the linguistic studies (Yavaş 1980; Uzun 2004). When the grammars which deal with the relation between the modality and the future tense are examined, it is seen that the relation of the deontic modality expressions with the future tense markers are emphasized (Comrie 1985: 45; Dahl 1985: 103). This form is traditionally called the future tense suffix in Turkish studies and we encounter it as an element which indicates purpose, will and volition along with the tense. Mainly, it can be said that it is close to the deontic domain but there are also usages which can be interpreted as epistemic modality.

6a. Ali yarın gelecek.

Ali will come tomorrow.

6b. Ali yarın mutlaka gelecek.

Ali will definitely come tomorrow.

6c. Ali yarın muhtemelen gelecek.

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[4] In this study, the interrogative markers' relation with the uncertainty is excluded. In 5a, the function of the suffix *mI* is not interrogation but a kind of intensification.

Ali will probably come tomorrow.

When 6a is accepted as the directive of the speaker to the agents, it can be uttered that the suffix *-AcAk* is used for the expression of deontic modality. On the other hand, this sentence can be interpreted as a statement based on the belief and knowledge of the speaker and it marks the epistemic modality here. This suffix can also be used with the markers which show the highness (6b) or lowness (6c) of the speaker's belief and knowledge about the proposition. Consequently, it is a polysemuos form which marks both the epistemic and deontic modality domains alongside with the tense, in the same way with *-(A/I)r* and *-mAz*.

2.1.1.5. -sA

It is the condition suffix of Turkish. When the clause with *-sA* indicates condition, it definitely describes another sentence and it functions as a subordinate clause. Therefore, it is stated that it is not a mood suffix but a gerundium (Gülsevin 1990; Karahan 1994). It also becomes a modality marker when it does not report condition. If a predicate does not coordinate with another predicate which has the same form, it does not mark condition. (For the relation of this form with the condition see Ruhi et al. 2000). In this case, only one sentence is used and the element with *-sA* indicates judgement separately. The suffix *-sA* marks the expressions mostly related with the deontic domain like will, request as well as condition. However, it can be used for epistemic expressions like assumption.

7a. Ya Ali yarın gelirse.

What if Ali comes tomorrow.

7b. *Ali yarın gelirse

*If Ali comes tomorrow

In 7a, the speaker is not sure that the event will occur but he expresses that the occurence of the event is among the possibilities. Hence, *-sA* is seen as the marker of uncertainty. It is observed that this form can be used with the conjunction such as *ya*[5] and *ama* in those kinds of sentences. *Ya,* as it is in 7a, prevents the sentence to be interpreted only as a conditional clause and it provides an expression

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[5] The particle *ya* is observed as an auxiliary element in some uncertainty expressions: *Yağmur ya yağar ya yağmaz.* "It may rain or not". In this sentence, the speaker indicates that there are two possibilities. This construction is similar to *-Abil-* with regard to its semantic features. It is seen that a possibility meaning naturally emerges when the negative and the positive form of the same verb are used together in the same sentence. Hence, many conjunctions can be evaluated as possibility markers.

of probability to the sentence. In 7b in which the suffix is used without the elements *ya* and *ama*, we cannot interpret it as epistemic modality. This sentence is a subordinate clause which has no usage separately without a main clause. One of the usages of *-sA* reporting strong possibility is formed by the repetition of the predicates with *-sA*. In the sentences which include a predicate with the aorist (*-(A/I)r*), the repetition of the predicate with -sA adds the meaning of prediction to the sentence. But the speaker chooses this prediction among the possibilities which are close to the fact. Also, the verb with *-sA* must be the same with the verb which takes *-(A/I)r* suffix, as in the example 7c (*gel-*).

7c. Gelse gelse Ali gelir.

Most probably Ali comes.

2.1.1.6. -mA-sIn

It consists of the negative *-mA* and the imperative suffix *-sIn*. The suffix *-sIn* which is used in the imperative inflection of Turkish marks the third person. Hence, it does not mark the epistemic modality but the negative form of this suffix may mark the prediction of the speaker.

8a. Gelen, (sakın) Ali olmasın.

What if the person who comes is Ali.

8b. Buraya gelen, Ali olsun.

Ali must come here. / I wish Ali comes here.

This study excludes the intonation. For this reason, it does not deal with intonation in the sentences which can be interpreted as both deontic and epistemic. However, it must be emphasized that the intonation is very important in determining the modality domain of those kinds of sentences. When the speaker expresses 8a with a strong intonation, the sentence will be interpreted in the deontic modality domain. On the other hand, the speaker can express this sentence with a suspicious tone when he/she is not sure. In this case, the sentence will be able to interpreted in epistemic modality. Especially, the sentences which include *sakın* can be evaluated only in epistemic modality as the propositions which report prediction and suspicion.

In the positive form of the suffix, the epistemic possibility meaning does not occur. In 8b, the positive form of the suffix (*-sIn*) is used and this sentence can be only evaluated in deontic modality domain (For a typologic study which examines the relation between modality and negation categories see de Haan 1997).

2.1.1.7 -mA-(y)A

-A- is the optative suffix which is commonly used in the historical texts and dialects of Turkish. On the other hand, it is observed that this suffix is hardly used in Modern Turkey Turkish when we approach with a synchronic point of view. In Turkey Turkish, the optative category is expressed with different forms (See Ercilasun 1995; Gülsevin 2002; Demir 2008; Kerimoğlu 2008a). In spite of this, in Turkish grammars it is studied as the first optative form (Banguoğlu 1998: 467; Ergin 1993: 294; Gencan 2001: 318; Korkmaz 2003: 651: Lewis 1967: 132; Underhill 1997: 423: Kornfilt 2001: 371). When it is used with the negative suffix *-mA* like *-sIn*, it can be evaluated as the marker of epistemic modality.

9a. Buraya gelen, (sakın) Ali olmaya.

What if the person who comes here is Ali.

Intonation determines the domain of the proposition in 9a. The sentence can be interpreted in the epistemic modality with an intonation reporting prediction and suspicion.

2.1.1. Particle

2.1.1.1. Gibi

Gibi the similarity particle of Turkish can be used as a marker of modality. This usage is one of the examples which demonstrate that the particles can be evaluated as the elements of inflection. Although it is commonly used in Turkish, it is not examined in detail in Turkish studies. However, the functions of the particle in nominal inflection have been studied (Öner 1999), the relation between the particles and verbal categories has not been examined. This element which is only handled as a particle in Turkish grammars adds the modal meanings such as possibility and prediction to the sentence by being added to the inflected verbs. In fact, this element builds a semantic relation between nouns and marks uncertainty.

6a. Ali yarın gelecek.

Ali will come tomorrow.

10a. Ali yarın gelecek gibi.

It seems like Ali will come tomorrow.

The belief of the speaker in 10a is weaker than in 6a. In 10a, the speaker reports a possibility about the factuality of the proposition. The degree of certainty (epistemic modality) between the two

sentences is provided with the particle *gibi*. In 10a, the speaker is not sure that the proposition is factual. The particle *gibi* corresponds the epistemic meaning in a similar way with *-Abil-* previously mentioned above.

2.2. Morpho-syntactic markers

2.2.1. -sA gerek

This form is one of the examples of the deontic modality markers which can be interpreted as epistemic modality. It consists of the conditional *-sA* and *gerek* 'necessity' and it is handled as a deontic modality marker in Turkish studies (Corcu 2003; Erk Emeksiz 2009). This marker which is one of the most common markers of necessity used with *-mAlI* becomes an epistemic modality marker when it is used for the speaker's predictions and assumptions. Generally, it marks the speaker's interpretation which is made with regard to the certain facts.

11a. Bu kalemi Ali alsa gerek.

The person who takes this pencil must be Ali.

This form marks the strong prediction of the speaker in a similar way with the modal *must* in English. When it is required to express possibility by using nouns, this form is used with the auxiliary verb *ol-*. Thus, a lexical-morphological-syntactical structure in the form of *olsa gerek* appears. It makes relation with nouns as an epistemic modality marker.

11b. Ali yorgun olsa gerek.

Ali must be tired.

2.2.2. -mIş olur

-mIş suffix is handled as a past tense suffix in Turkish grammars (Ergin 1993, Banguoğlu 1998, Korkmaz 2003). In modern modality studies on Turkish, this suffix is evaluated as an evidentiality marker and it reveals the information that the speaker evaluates the proposition by using second-hand information (Bacanlı 2006; Bacanlı 2008; Nauze 2008: 98; Demirci et al. 2010). This suffix which consists of *-mIş* and the verb *ol-* with the aorist *(-(A/I)r)* is one of the structures used for prediction and assumption. It is also used for the intention, expectation and the events which are expected to occur after the speech time.

12a. Ali yarın İzmir'e gelmiş olur.

Ali will have come to İzmir tomorrow.

2.2.3. -(A/I)r dA -mAz dA

It is certainly an uncertainty marker. It is a form used when the speaker's knowledge and belief are weak. This form which consists of the use of the positive (*-(A/I)r*) and the negative (*-mAz*) forms of the Turkish aorist with the particle *da* as a kind of repetition. It marks the events about which the speaker has no idea. He/she is not sure whether the event will occur or not.

13a. Ali gelir de gelmez de.

Ali may come or not.

2.3. Lexical Markers

2.3.1. Lexcial markers which can only be modal adverbs

2.3.1.1. Belki

Adverbials have very important place in the system of Turkish modality. It is seen that the speaker identifies the modality domain of the proposition by using adverbials. These markers clarify some expressions called ambiguity and polysemy in linguistic literature. *Belki* is evaluated as an adverb which marks possibility (Atabay et al. 2003: 95; Demir 2006: 487; Doğan et al. 1999: 73; Ruhi et al. 1996: 313). It indicates a weak possibility like *herhalde* and *galiba* (Ruhi et al. 1999: 313).

6a. Ali yarın gelecek.

Ali will come tomorrow.

6b. Ali yarın mutlaka gelecek.

Ali will definitely come tomorrow.

14a. Ali yarın belki gelecek.

Ali perhaps will come tomorrow.

When we order the certainty degree of the propositions from the strongest to the weakest, we encounter with this order: 6b >6a>14a. *Belki*, as an adverb of possibility, always reports uncertainty in the expressions of epistemic modality. *Belki* gives the meaning of possibility to the different parts of a sentence by coming before or after the elements of the sentence. By means of the flexible syntax and intonation in Turkish, the expression of possibility can be reflected to the subjects or objects.

14b. Belki Ali yarın gelecek.

Perhaps Ali will come tomorrow.

14c. Ali belki yarın gelecek.

Ali will come tomorrow perhaps.

Belki coordinates not only with the future tense suffixes but also with the other tense suffixes. It is a marker which indicates the expression of possibility about the events in the past and the present tense.

14d. Ali belki geldi/gelecek/gelmiş/geliyor/gelir.

Ali perhaps came/will come/has come/is coming/comes.

2.3.1.2. Galiba

It is one of the adverbials used for possibility. *Galiba* which also marks suspicion indicates a stronger belief about the proposition compared to *belki*. Yet, this belief is far from certainty.

15a. Ali yarın galiba gelecek.

Ali presumably will come tomorrow.

While *belki* in 14a reports a general probability, *galiba* in 15a reports prediction based on some facts. The speaker makes a deduction by relying on some uncertain facts. E. Erguvanlı-Taylan and S. Özsoy assert that *herhalde* and *belki* report objective and *galiba* reports subjective possibility (Erguvanlı-Taylan et al. 1993: 6-7). This suffix is also in harmony with possibility based on deduction. The deduction naturally carries subjectivity in its structure.

Galiba has a flexible place in the sentence and may come before or after the elements of it. In the same way with *belki*, it coordinates with the other tense morphemes.

2.3.1.3. Herhalde

Herhalde which is one of the adverbs marking epistemic possibility reports stronger belief when it is compared to *belki* and *galiba*. When these adverbs are ordered from the strongest to the weakest, the order becomes *herhalde>galiba>belki*.

16a. Ali yarın herhalde gelecek.

Ali probably will come tomorrow.

Herhalde may indicate different degrees of certainty depending on intonation. *Herhalde* in 16a which is expressed with a strong intonation can be interpreted as a marker of certainty like *mutlaka* and *kesinlikle*. If the speaker is not sure about the certainty of the proposition, he/she can pronounce the same element with a weaker intonation. Nevertheless, this usage is not possible for *belki* and

galiba. They never turn into a marker which reports certainty. The different intonations of these three adverbs should be considered. The stronger intonation of *herhalde* is possible only when it comes before the predicate.

Like *galiba* and *belki*, *herhalde* can take different places in a sentence and can be used with all Turkish tense suffixes.

2.3.1.4. Sanki

The possibility marker *sanki* indicates suspicion and reflects the speaker's weak belief about the proposition. Like *galiba*, it is based on the deduction of the speaker but it reports weaker belief.

17a. Ali yarın sanki gelecek.

Ali will supposedly come tomorrow.

Sanki which is used in deductions based on certain facts states uncertainty in the lowest degree. In this manner, *sanki* takes the lowest place in the scale including *belki, herhalde* and *galiba*. Like the other adverbs, it may carry this weaker possibility meaning to different elements of a sentence and can be used with all of the tense suffixes.

2.3.1.5. Muhtemelen

The uncertainty expression of *muhtemelen* does not indicate any degrees. It is a neutral marker which is limited to report that the occurrence of the proposition is possible. When it comes before the elements which will be stressed, *muhtemelen* adds possibility meaning to these elements. It can be used with all of the tense suffixes.

18a. Ali yarın muhtemelen gelecek.

Ali will probably come tomorrow.

2.3.1.6. Bence

Bence which is the inflected form of the pronoun *ben* with the addition of the equative suffix *+cA* is different from the other markers mentioned above. In modality studies, the concept 'subjectification' is demonstrated as a factor which indicates the approach of the speaker to the proposition (Finegan 1995: 4). The elements which mark the speaker's negative or positive comment about the proposition according to the concepts 'objectivity' and 'subjectivity' are examined in subjectivity studies. However, the modality studies do not deal with the negative or positive comments, they generally focus on if the speaker's comment in an utterance is based on knowledge or will. So, there is no harmony between these

study fields. But *bence* and the elements like *sanırım* which will be examined further are also important in modality studies because they mark the speaker's attitudes.

Ben is a pronoun which marks the first singular person. But in this use, it is used as an adverb with the addition of the suffix +*cA*. Thus, this form can be evaluated as a modality marker. To make certain expressions uncertain, the markers which limit the proposition are used. The proposition which has a stronger certainty meaning as a general expression loses its generality and gets closer to the uncertainty, when it is restricted to a personal opinion.

19a. Evrim teorisi doğrudur.

The theory of evolution is true.

19b. Bence evrim teorisi doğrudur.

According to me, the theory of evolution is true.

19a has a stronger meaning of certainty. *Bence* indicates that the proposition is based not on generally accepted facts but on the speaker's belief and knowledge. Thus, the interpretation of the sentence gets closer to the uncertainty modality. This element is also used with all tense suffixes and has a flexible place in the sentence.

2.3.1.7. Kanımca / Fikrimce

When the lexicological elements which mean 'opinion, thought' take the possession suffix (+*Im*) and the equative suffix (+*cA*), they are used to limit the proposition and make the certainty meaning close to the uncertainty.

 20a. Fenerbahçe Türkiye'nin en büyük takımıdır.

Fenerbahçe is the greatest team of Turkey.

20b. Kanımca/fikrimce Fenerbahçe Türkiye'nin en büyük takımıdır.

In my opinion, Fenerbahçe is the greatest team of Turkey.

2.3.1.8. Genellikle/Çoğunlukla

The markers which mean 'generally' limit the proposition in terms of generality. The certainty excludes the other possibilities related with the proposition. Thus, the markers which make the proposition fuzzy add uncertainty to the proposition. It is known that the adverbs like *about* and *nearly* which report approximation make the proposition fuzzy (Zhang 1998) and the frequency adverbs like *generally*, *usually* add the meaning of possibility to the proposition

(Cohen 1999). In the discourse studies, these forms which are examined in terms of their marking the lack of belief of the speaker and which are usually called as hedging are divided into two groups as the approximators and shields (for hedging see Salager-Meyer 1994, 2000; Crompton 1997, 1998; Hyland 1996, 1998, 2000; Yarar 2000, 2001; Rizomilioti 2003; Doyuran 2009).

The markers of limitation stated above *(bence, kanımca,* etc.) restrict the proposition with the speaker's own belief and knowledge. On the other hand, *genellikle* and *çoğunlukla* markers extend this limit, yet they do not indicate that the proposition states a generally accepted   fact or certain reality. This marker also has a flexible place in the sentence and coordinate with the aorist and past tense.

2.3.2. Lexical markers which can be modal nouns, modal adverbs and modal predicates

2.3.2.1. Olasılık

Olasılık which means 'possibility, probability' can give the possibility meaning to the proposition in the form of noun, pronoun or modal predicate according to the speaker's preference. When it is used as a noun, the proposition which has a possibility to occur takes place as an infinitive clause in the sentence and creates a noun completion with the word *olasılık.*

6a. Ali yarın gelecek.

Ali will come tomorrow.

22a. Ali'nin yarın gelme olasılığı var.

There is a possibility that Ali will come tomorrow.

The use of this verb as an adverb can be possible with the particle *ile*: *olasılıkla.* The speaker can determine the degree of the possibility which can be high or low by means of the adjectives *büyük-yüksek* (high) or *küçük-düşük* (low). It can be used with all tense suffixes as an adverb.

22b. Ali büyük bir olasılıkla yarın gelecek.

Ali will most likely come tomorrow.

When *olasılık* is a modal predicate, a noun clause is used as a subject. *Büyük-yüksek* (for strong possibility) and *küçük-düşük* (for weak possibility) may come before the predicate *olasılık* to determine the degree of possibility.

22c. Ali'nin yarın gelmesi küçük bir olasılık.

It is a low probability that Ali will come tomorrow.

2.3.2.2. İhtimal

İhtimal has largely the same domain of use with *olasılık* but it is differently used when it is an adverb. While *olasılık* can only be used as an adverb with the particle *ile*, the word *ihtimal* can be a probability adverb without it: *bir ihtimal*. It can also indicate uncertainty without an adjective like *büyük* or *küçük* which report the degree of probability: *küçük / büyük bir ihtimal*. In this usage, this marker is used with *bir* which is mentioned as the Turkish indefinite article in literature (For the discussions about *bir* see Kerimoğlu 2008b). There is a low probability in this usage.

23a. Ali'nin yarın gelme ihtimali var.

There is a probability that Ali comes tomorrow.

In 23a, *ihtimal* is a noun and it is used without an adjective which indicates a degree.

23b. Ali yarın büyük bir ihtimalle gelecek.

Ali is most likely coming tomorrow.

23c. Ali'nin yarın gelmesi küçük bir ihtimal.

It is a low probability that Ali will come tomorrow.

23d. Bir ihtimal Ali yarın gelecek.

Maybe Ali will come tomorrow.

In 23b-d, this form is used as an adverb with adjectives (*büyük, bir*, etc.). In 23c, *ihtimal* is a modal predicate and the adjectives which report the degree of probability can come before it. The usage in 23d is not possible for the word *olasılık*. *İhtimal* indicates a low probability with *bir* in this sentence.

2.3.3. Lexical markers which can only be modal predicates

2.3.3.1. Lexical markers which mean probability

2.3.3.1.1 Muhtemel

As it is seen in the examples above, when there is a nominal modal predicate, the proposition which indicates the belief and knowledge of the speaker is used as a noun clause. The word *muhtemel* is an epistemic modality marker as a modal predicate. When an element which reports the degree of possibility is not used, it is

difficult to say whether the possibility is strong or not. The adverb *kuvvetle* is generally used before *muhtemel* to express a strong possibility. But there are not any markers used with *muhtemel* to express a weak possibility. Thus, one can think that *muhtemel* indicates the strong possibility and it is used with *kuvvetle* to make it closer to certainty.

24a. Ali'nin yarın gelmesi muhtemel.

It is a probability that Ali will come tomorrow.

24b. Ali'nin yarın gelmesi kuvvetle muhtemel.

It is a high probability that Ali will come tomorrow.

2.3.3.1.2. Olası

Olası has the similar usage with *muhtemel* but it does not mark the degree of possibility. The use of *olası* with an adverb like *kuvvetle* is not common in literary language.

25a. Ali'nin yarın gelmesi olası.

It is a probability that Ali will come tomorrow.

2.3.3.1.3. Mümkün

Mümkün is a noun which means 'possible'. But it can be used as a modal predicate which marks uncertainty. Like many markers which indicate potency and ability, *mümkün* has some usages that can be evaluated in the epistemic modality.

26a. Ali'nin yarın gelmesi mümkün.

It is possible that Ali will come tomorrow.

This sentence can be interpreted as both deontic (potential, ability) and epistemic (uncertainty). Context is very important to determine the domain of this marker.

2.3.3.1.4. Olanaklı

Olanaklı is also used as both epistemic and deontic modality. But it has not a common usage.

27a. Ali'nin yarın gelmesi olanaklı.

It is possible that Ali will come tomorrow.

2.3.3.2. Different inflections of the verb *ol-*

2.3.3.2.1. Olabilir

The relation of the verb *ol-* with the tense, aspect and mood categories in Turkish verb inflection was studied by many researchers (Gülsevin 1997; Göksel 2002; Johanson 2009: 498). *Olabilir* which is one of the most common modal predicates of Turkish consists of the ability suffix *-Abil-* and the aorist *-(A/I)r*. It can mark the epistemic possibility in both verbal and nominal sentences. In verbal sentences, it cannot be used after a verb which takes *-DI* (past tense) or *-(A/I)r* (aorist) suffixes. Its use with *-AcAk* (future tense) is also limited. It can be used after a verb with *-mIş* (past tense) and *-(I)yor* (present tense).

Olabilir does not mark the degree of possibility, thus it can be evaluated as a neutral marker which only adds possibility meaning to the proposition.

28a. *Ali gelir/geldi olabilir.

28b. Ali gelecek/gelmiş/geliyor olabilir.

Maybe Ali will come/came/ is coming.

This marker is also a modal predicate which can be used after a noun.

28c. Ali yorgun olabilir.

Ali may be tired.

2.3.3.2.2. Olmalı

Olmalı consists of *-mAlI*, which is an obligation and necessity marker, and *ol-* auxiliary verb. This marker can indicate the epistemic modality in a semantic domain reporting the speaker's deduction and prediction. This is an example of the use of a deontic marker as an epistemic marker. If it marks possibility about a verb, the verb takes one of these suffixes*: -AcAk, -mIş, -(I)yor*. There is no use of it with *-DI* and *-(A/I)r* suffixes.

29a. Bizimle Ali gelecek/geliyor/gelmiş olmalı.

Ali must be coming /must have come with us.

29b. *Bizimle Ali geldi/gelir olmalı.

29c. Ali yarın bu saatlerde gelmiş olmalı.

Ali must be here at this time tomorrow.

29d. Ali dün bu saatlerde gelmiş olmalı.

Ali must have come at this time yesterday.

29e. Ali yarın geliyor olmalı.

Ali must be coming tomorrow.

29f. Ali şimdi geliyor olmalı.

Ali must be coming now.

When it is used with *-AcAk*, it reports estimated knowledge. Thus, this usage cannot be interpreted as deontic. Its use with *-mIş* provides an opportunity to make different interpretations. When there is an event after the speech time like in 29c, *-mIş olmalı* can be interpreted only in the optative semantic domain as deontic modality. On the other hand, when there is an event before the speech time like 29d, the epistemic modality based on prediction and suspicion can be asserted. In its use with a verb which takes *-(I)yor*, the interpretation of the sentence becomes not only epistemic but also deontic. In 29e-f, the speaker may mark deduction or will. Thus, the certain interpretation of the sentences can be determined by means of intonation and pragmatic markers, etc.

Olmalı is also used with nouns. In 29g, it expresses epistemic meanings like prediction, deduction, etc., as well as deontic meanings like obligation, will, etc.

29g. Ali başbakan olmalı.

Ali must be the president.

2.3.3.2.3. Olmaya

Olmaya consists of the negation suffix *-mA-* and the optative suffix *-A-*. *-A-* is not common in literary Turkish and begins to be used only in dialects. *Olmaya* signals the speaker's suspicion. It is stated that this form, which can be used with both verbs and nouns, cannot be interpreted as a deontic modality marker and its deontic use in the old texts is not observed in Turkey Turkish. It is generally used with the particle *sakın*. In the sentences with *olmaya sakın,* there is a suspicion which is related with the speaker's happiness or anxiety.

When this marker is used with verbs, it generally corroborates with the past tense suffix *-mIş*. The suffixes *-(I)yor* and *-AcAk* can be also used with it.

30a. (Sakın) Ali oraya gitmiş olmaya.

I do hope he has not gone there.

In 30a the speaker suspects the probability that Ali has gone that place. *Olmaya* is similar to *olabilir* but it also signals the speaker's will and fear. *Olabilir* does not have that kind of function. It adds to proposition only the probability and possibility meaning. The effects of probability on the speaker are not expressed by *olabilir*.

When it is used with nouns, it exhibits some examples which can be evaluated as deontic modality. For this interpretation, intonation and pragmatic elements are important. But this usage is not common in standard Turkey Turkish.

30b. Ali yorgun olmaya.

I do hope Ali is not tired.

2.3.3.2.4. Olmasın

Olmasın, which consists of the auxiliary verb *ol-*, the negative suffix *-mA-* and the 3rd person imperative suffix *-sIn*, can mark both deontic and epistemic modality in the same way with *olmaya*. It indicates meanings like will, prohibition in deontic semantic domain. On the other hand, in epistemic domain, *olmasın* generally signals suspicion. Its semantic features are close to *olabilir* but *olmasın* has a wide semantic domain which reflects the speaker's suspicion with will and fear.

31a. Ali gelmiş olmasın.

Ali might have come.

31b. Ali yarın buraya gelmiş olmasın.

I do not want Ali to come here tomorrow.

31c. Ali dün buraya gelmiş olmasın.

Ali might have come here yesterday.

31d. Ali şimdi/yarın buraya geliyor olmasın.

Ali may come / must not come here tomorrow.

31e. Ali yarın buraya gelecek olmasın.

I want Ali not to come here tomorrow / Ali may come here tomorrow.

Olmasın indicates suspicion and deduction related with past, now and future by coming after a verb which takes the suffixes *-AcAk*, *-mIş*, *-(I)yor*. When a verb with *-mIş* suffix is used with the future adverbs as in 31b, this marker does not mark possibility and becomes imperative. In 31c, it comes after a verb with *-mIş* but there is a past

tense adverb in the sentence. Thus, the sentence can be interpreted only as epistemic modality (suspicion). When this marker is used with a verb which takes -*(I)yor* suffix, there may be two interpretations. 31d can be evaluated as deontic (will) and epistemic (suspicion), because the present / future tense adverbs (*şimdi* 'now' / *yarın* 'tomorrow') are used. These adverbs make the sentence ambiguous. This marker signals both deontic (will) and epistemic modality (suspicion) in 31e in whichit is used with -*AcAk*.

It can be also used with nouns as a deontic and epistemic modality marker.

31f. Ali yorgun olmasın.

Ali may be tired / I want Ali not to be tired.

2.3.3.3. Lexical markers which mean necessity

2.3.3.3.1. Gerek / Lazım

Gerek and *lazım* which are evaluated in the deontic modality domain as the obligation-necessity markers are also used to express deduction and prediction. These markers which indicate the speaker's suspicion and deduction are similar to -*sA gerek* mentioned above. The interpretation of the sentences with *gerek* and *lazım* can be made by means of intonation, context and pragmatic features. It is hard to determine the modal domain of the sentence without these elements.

32a. Ali'nin yarın gelmesi gerek/lazım.

It is necessary/probable that Ali will come tomorrow.

When *gerek* and *lazım* are used with a noun, they do not indicate epistemic modality.

32b. Bize kitap gerek/lazım.

A book is necessary to us.

2.3.3.4. Lexical markers which mean thought, opinion

2.3.3.4.1.Görüş / Fikir / Kanı / Düşünce

The nouns which mean 'thought, opinion' can also mark the epistemic possibility. These markers consist of the possessive suffix (+*I*), locative suffix (+*DA*) and the Turkish copula (first person, +*(y)Im*) and restrict the certainty expressed in a proposition. These usages which can be evaluated in the concept of subjectification are important because they represent the tendency of the lexical elements to the grammaticalization (For the subjectification process see Stein et al. 1995; Traugott 1989; Hopper et al. 2003).

33a. Ali'nin yarın geleceği görüşündeyim / fikrindeyim / kanısındayım / düşüncesindeyim.

I think Ali will come tomorrow.

2.3.3.5. Lexical markers which mean suspicion, deduction 2.3.3.5.1. Kuşkulan- / Şüphelen-

The verbs *kuşkulan-* and *şüphelen-* are used when the speaker does not know whether the proposition is true or not. These markers make the proposition uncertain by limiting its certainty. The proposition is formed as an infinitive clause and it coordinates with the predicate by taking the ablative suffix (+*DAn*). The speaker's belief and knowledge about the proposition is weak.

34a. Ali'nin yarın gelmesinden kuşkulanıyorum/şüpheleniyorum.

I doubt whether Ali will come tomorrow.

2.3.3.5.2. San-

San- is a verb which means 'to suppose, assume'. It is used to mark the speaker's suspicions and deductions. It is similar to *kuşkulan-* and *şüphelen-* as a modal predicate but its dominant function is to indicate deduction. The speaker generally uses this marker when he knows some facts which can be basis for deduction.

35a. Ali'nin geleceğini sanıyorum.

I think that Ali will come.

2.4. Syntactic markers

2.4.1. Modal tags

2.4.1.1. Sanırım

Sanırım is evaluated as the Turkish equivalent of the expression 'I think' in English. It has two bound morphemes as the Turkish aorist suffix (-*(A/I)r*) and the first person suffix (-*Im*). This marker is in the form of sentence but generally takes place as an adverbial which reports the speaker's lack of belief and knowledge about the proposition. The speaker marks his/her suspicions, deductions and predictions by using *sanırım* which is an example of the grammaticalization process. Many adverbs and particles in Turkish were generally derived from the syntactic relations. After they lost their meanings, they began to function as morphologic elements (*halbuki, sanki*, etc.) (For modality and grammaticalization see de Haan 2006: 37; Traugott 2006: 110-113; Hopper et al. 2003).

Sanırım can be used with all Turkish tense suffixes and can functioned as an epistemic modality marker which signals uncertainty.

36a. Sanırım Ali gelecek.

I think, Ali will come tomorrow.

2.4.1.2. Markers with the conditional suffix -sA

2.4.1.2.1. Yanılmıyorsam

The markers with the *-sA* suffix are evaluated as the conditional clauses, which are the Turkish basic subordinate clauses in Turkish studies. Although all markers which take this suffix are not mentioned as the morphologic elements, it can be asserted that some of them are in the process of grammaticalization and begin to be used as the grammatical elements. One of these markers is *yanılmıyorsam* which is the counterpart of "If I am not wrong" in English. This marker, which consists of the verb *yanıl-*, the negative suffix *-mA*, the present tense suffix *-(I)yor*, the conditional suffix *-sA* and the first person suffix *-m*, reveals that the speaker is not sure about the proposition's certainty.

Yanılmıyorsam has also a flexible place in the sentence like *sanırım* and can be used with all of the tense suffixes.

37a. Yanılmıyorsam Ali gelecek.

If I am not wrong, Ali will come.

2.4.1.2.2. Bana kalırsa

Bana kalırsa is also in the structure of the conditional clause and consists of the dative form of the first person pronoun *ben* and the verb *kal-* which takes the aorist (*-(A/I)r*) and the conditional suffix (*-sA*). This marker limits the proposition to the personal opinion. For this reason, it is similar to the markers like *bence*, *kanımca*.

38a. Bana kalırsa Ali gelir.

For my part, Ali comes.

2.4.1.3. Markers with the verb ol-

2.4.1.3.1. Olur a / ya / da

Turkish has a wide range of particle variation. Thus, many grammatical elements can be extended by the addition of these particles and many different meanings can be produced in this way. *Olur a / ya / da* is an extended form of the verb *ol-* which takes the aorist suffix *-(A/I)r*. *A, ya* and *da* are mostly called as particles or conjuctions in Turkish studies.

Olur a / ya / da marks the speaker's prediction on an unexpected event. Although it resembles *belki* mentioned above, the emphasis of unlikelihood in *belki* is not strong. *Olur a / ya / da* indicates a low possibility.

This marker, which is generally used with the aorist suffix (-*(A/I)r*) and the past tense suffix (*-DI*), has especially a common usage with the predicate inflected with the conditional suffix *-sA* and the particle *dA*. As it is seen in 39b, it marks a more unexpected possibility. The possibility in its use with past tense (39a), is not related with the past (before the speech time) but with the future (after the speech time).

39a. Olur a / ya Ali yarın geldi.

Suppose that Ali will come tomorrow.

39b. Olur da Ali yarın gelirse ne yaparız?

What will we do, if Ali comes tomorrow?

2.4.1.3.2. Ola ki

The particle *ki* is seen in the structure of many grammaticized markers in Turkish (*sanki, halbuki, belki*, etc.). *Ola ki* also occurs as the result of the grammaticized form of the verb *ol-*, which takes the optative suffix *-A* and *ki*, and it becomes an adverb which marks modality like *sanki* and *belki* do.

Ola ki generally signals assumptions in Turkey Turkish in the same manner with *diyelim ki, farz edelim ki* below. It can be used with *-mIş, -DI, -(I)yor* tense suffixes and can indicate assumptions about the past and present (40c). *Ola ki* cannot be used with the future tense suffix *-AcAk* and the aorist *-(A/I)r* suffix. This marker has also a different usage with the past tense suffix *-DI*. If there is an adverb which marks the future in the sentence such as *yarın* 'tomorrow', the time of the proposition signals the future tense, although the predicate, which is used with *ola ki,* is inflected with the past tense suffix (*-DI*) (40a).

40a. Ola ki Ali yarın geldi.

Suppose that Ali comes tomorrow.

40b. *Ali yarın geldi.

*Ali came tomorrow.

40c. Ola ki Ali geldi.

Suppose that Ali has come.

The speaker in 40a states the probability that Ali will come tomorrow. Ali has not come yet. The probability that the event may occur after the speech time is indicated with *yarın*. If the event occurs, this can only be in the future. But the probability of Ali's coming is low. The speaker states that this possibility may occur, although this is a low probability and assumption. When *ola ki* is excluded from the sentence, the sentence indicates the time before the speech due to the past tense suffix *-DI*. Thus, a disunity occurs between the predicate inflected with the past tense suffix and *yarın* 'tomorrow' (40b). This shows that *ola ki* changes the sentence in terms of tense; it emphasizes a probability about the future and provides the harmony between *yarın* and the predicate. *Olur a / da* is similar to *ola ki* in this respect.

2.4.1.3.3. Olsa olsa

Olsa olsa, which is the repetition of the verb *ol-* with the *-sA* suffix, is used to express a strong possibility. The speaker chooses the most probable one among the possibilities. This marker can also be used for certainty like *kesinlikle*, *mutlaka*. This use is possible by means of intonation.

41a. Bunu yapan olsa olsa Ali'dir.

The man who did this most probably is Ali.

2.4.1.4. Markers with the verb bak-

2.4.1.4.1. Bakarsın

Turkish has many particles and conjunctions in the form of sentence (see Efendioğlu 2006, Johanson 2009). *Bakarsın,* which is inflected with the aorist suffix (*-(A/I)r*) and the second person suffix (*-sIn*), is formed like *sanırım* as a modal adverb although it is in the form of sentence. The speaker states unexpected possibilities with this marker which coordinates only with the aorist suffix.

42a. Bakarsın Ali yarın gelir.

Ali perhaps comes tomorrow.

2.4.1.4.2. Bakmışsın

Bakmışsın, which takes the past tense suffix *-mIş* and the second person suffix *-sIn*, is also in the form of sentence. Although this marker is inflected with the past tense suffix, it is used to indicate the possibility meaning related with both the past and future. Thus, it is different from *olur a / ya* and *ola ki* above.

43a. Bakmışsın Ali yarın gelmiş.

Let us say that Ali comes tomorrow.

43b. (Bir de) bakmışsın Ali geliyor.

Let us say that Ali is coming.

43c. *Ali yarın gelmiş.

In 43a, the verbs are inflected with the past tense suffix *-mIş*. However, there is the adverb *yarın* which means 'tomorrow'. The element that makes this sentence grammatical is *bakmışsın*. If *bakmışsın* was not used, this sentence would be ungrammatical (43c). This sentence is concerned with an event which may occur in the future.

Bakmışsın generally indicates expectations about the future. But according to the speaker, these expectations will not be performed easily. By using *bakmışsın*, the speaker demonstrates that this probability is low. In 43b, *bir de* is used to intensify the meaning of unlikelihood. The particle *bir de* adds a low possibility meaning to the proposition.

2.4.1.5. Markers with the imperative suffix

2.4.1.5.1. Tutalım ki

Tutalım ki is one of the markers which takes the imperative suffix and the conjuction *ki* (-*AlIm* is evaluated as an optative suffix by some researchers in Turkish grammar tradition. For discussion see Ercilasun 1995; Gülsevin 2002). These markers generally signal assumptions in Turkey Turkish.

Tutalım ki is in the form of sentence like many markers used with *ki*. As mentioned above, the markers like *sanki*, *halbuki* become grammatical elements after the grammaticalization process. But the markers such as *tutalım ki*, *diyelim ki* have not become morphological elements yet. However, we can declare that their grammaticalization process have begun. These markers are mostly used as modal adverbs which indicate assumptions. *Tutalım ki* can be used with all tense suffixes and it has a flexible place in the sentence. This marker has two forms which developed from the different inflections of the verb *tut-* : *tut ki* (zero morpheme for the second person), *tutalım ki* (-*AlIm* for the first plural person).

44a. Tutalım ki Ali geldi.

Let us say that Ali came.

This verb cannot be used as a modal predicate in the sentence.

44b.*Ali yarın geldi tutalım.

2.4.1.5.2. Varsayalım ki / Farz edelim ki

Varsay- and *farz et-* are verbs which mean 'to suppose, to assume'. Their usages are very similar in Turkey Turkish, so they can replace each other. Their semantic domain includes the assumptions which mostly indicate the lack of belief of the speaker. In addition to this, these two markers can be also used without *ki*: *varsayalım, farz edelim*. But when the verbs are inflected with the second person (zero morpheme), they must be used with *ki*: *varsay ki, farz et ki*.

Varsayalım ki and *farz edelim ki* can mark the assumptions on the events which occur before or after the speech time. Their places in the sentence are flexible.

45a. Varsayalım ki / farz edelim ki Ali geldi.

Let us suppose that Ali has come.

These markers can be modal predicates in the sentence and in this case they do not take *ki*. The proposition can be formed both as a noun clause (45b) and as a sentence (45c).

45b. Ali'nin geldiğini varsayalım / farz edelim.

45c. Ali geldi varsayalım / farz edelim.

Let us suppose that Ali has come.

2.4.1.5.3. Diyelim ki

Diyelim ki, which consists of the verb *de-* 'to say', the imperative suffix *-AlIm* and the conjunction *ki*, cannot be used without *ki* and it differenciates from the other markers which take the imperative suffix. This marker, which can be used with all tense suffixes, marks assumptions and can be a modal predicate. When it becomes a modal predicate, the proposition cannot be formed as a noun clause. In this case, the proposition must be in the form of sentence (46b).

46a. Diyelim ki Ali gelecek.

Let us suppose that Ali will come.

46b. Ali gelecek diyelim.

2.4.1.6. Markers with the particle göre

2.4.1.6.1. Bana göre

The markers with *göre* are not in the form of sentence. They construct a kind of noun phrase which mostly reveals personal

opinion. *Bana göre* also depicts that the proposition is limited with the speaker's opinion. This marker, which consists of the first person pronoun *ben*, the dative suffix *-A* and the particle *göre*, can be evaluated in the concept of subjectification mentioned above.

> 47a. Bana göre Ali yarın gelecek.

> According to me, Ali will come tomorrow.

2.4.1.6.2. Düşünceme / Fikrime göre

It is frequently seen that some words which mean 'thought, opinion' are used to mark modality. In Turkey Turkish, the words *düşünce* and *fikir* related with opinion are employed to indicate uncertainty with the addition of *göre*. These words also take the first person possessive suffix (+*Im*) and the dative suffix (+*A*). *Düşünceme / fikrime göre* can take different places in the sentence.

> 48a. Düşünceme göre Ali yarın gelecek.

> In my opinion, Ali will come tomorrow.

2.4.2. Syntactic markers which can only be modal predicates

2.4.2.1. Tahmin et-

Tahmin et- is a compound verb which means 'to predict, to guess'. This marker adds the meaning of prediction to the sentence. When the speaker wants to make a prediction, a noun clause which becomes the object of the verb *tahmin et-* is required.

> 49a. Ali'nin yarın geleceğini tahmin ediyorum.

> I guess Ali will come tomorrow.

2.4.2.2. İmkan dahilinde

İmkan 'possibility, opportunity' and *dahil* 'including, inside' are the main parts of this marker which is in the form of noun completion. *İmkan dahilinde* is used to mark the knowledge that the proposition may occur and the conditions are sufficient. Thus, it can be evaluated in the same semantic domain with the markers which mean potential like *mümkün*, *olanaklı*.

> 50a. Ali'nin yarın gelmesi imkan dahilinde.

> It is possible that Ali will come tomorrow.

2.4.2.3. Idiomatic markers

2.4.2.3.1. Gibi geliyor / görünüyor

Gibi geliyor and *gibi görünüyor* mark the situations which the speaker has not the sufficient knowledge. When the speaker wants to state an estimated opinion with regard to a fact, he/she uses this marker. *Gibi geliyor* can be also used with the possessive (+*(I)m*) and dative (+*A*): *gibime geliyor* (51b). But this kind of use is not possible for *gibi görünüyor* (51c).

> 51a. Ali gelecek gibi geliyor/görünüyor.

> It seems like Ali will come.

> 51b. Ali gelecek gibime geliyor.

> I guess Ali will come.

> 51c. *Ali gelecek gibime görünüyor.

2.4.2.3.2. Diye düşünüyorum

Diye düşünüyorum is an idiomatic marker which adds the personal opinion to the proposition. It consists of the particle *diye* and the verb *düşün-* 'to think' with the present tense suffix *-(I)yor* and the first person suffix *-Im*. This marker which can be used with all tense suffixes is a modal predicate which can come to the end of the sentence.

> 52a. Ali gelecek diye düşünüyorum.

> I think that Ali will come.

2.4.2.3.3. Belli mi olur / Belli olmaz … (Tutar / Çıkar / Eser) … (I/A)r

This marker is a syntactic construction which the speaker uses to add the uncertainty meaning to the proposition. There are different forms of this marker signalling unexpected events. It coordinates with the sentence which has a predicate with the aorist suffix (-*(A/I)r*). But it deals with the events which will occur in the future.

Belli mi olur and *belli olmaz* 'it is not certain that' add the uncertainty meaning to the proposition. This meaning can be also intensified by the use of one of the words from *tutar* / *çıkar* / *eser* which indicate the unlikelihood of the event. Although these words are inflected with the aorist suffix and are formed as a sentence, they are used as adverbs.

53a. Belli mi olur / Belli olmaz Ali yarın (tutar / çıkar / eser) gelir.

One never knows that Ali comes tomorrow. Maybe he comes.

3. Conclusion

It is observed that the uncertainty markers in Turkey Turkish take place in these six semantic domains:

a. Probability: All uncertainty markers basicly indicate probability. However, the markers mentioned in this title mostly have not a probability meaning based on suspicion and assumption. Morphological markers such as *-Abil-, -DIr* and the lexical markers such as *belki, ihtimal* are used to indicate only probability. The speaker points out the existence of a probability but he/she does not indicate its nature.

b. Suspicion: The markers like *olmasın, olmaya* which include the speaker's opinion about the probability in the proposition are in the semantic domain of suspicion. The speaker's negative or positive concerns about the proposition are reflected with these markers. Thus, it can be said that these markers also reflect the nature of possibility.

c. Prediction: The markers such as *herhalde, yanılmıyorsam* can mark predictions when the speaker has not certain facts. The prediction is mostly based on feelings. Thus, they are used when the possibility is not strong.

d. Deduction: When the speaker has certain facts about the proposition, he/she uses the markers which reflect the strong possibility such as *olmalı, gerek, lazım*. The opinion of the speaker about the proposition is beyond prediction and close to certainty.

e. Assumption: The markers such as *tutalım ki, diyelim ki* are used when the speaker aims to represent the factuality of the proposition as a prerequisite. Thus, the possibility meaning of these markers is hypothetical.

f. Ungeneralization: Certainty is based on generality. One of the methods to make a proposition uncertain is to reduce its generality. The markers such as *bence*, *kanımca*, *bana göre* are used to indicate that the proposition is not based on a general, certain fact.

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