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

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

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THE TURKISH FUTURE MARKER

Feryal Yavaş

Abstract: The Turkish future marker has uses which can adequately be analyzed under the modal system of the language. This lends support to the hypothesis that futurity is as much a modal notion as a temporal one.

Introduction

There is growing linguistic evidence that indicates a close affinity between future tense markers and modal categories. Linguists report that in many languages future tense markers function as markers of a variety of mood/modal related notions like volition, supposition, intention, etc. (Lyons 1977:815-17, Ulman 1972:75-94). As early as 1931, Jespersen, pointing to the modal uses of will and shall, had concluded that there was no future tense in English. More recently, Binnick (1971, 1972) has given us a detailed account of will and be going to, showing the presuppositional differences that govern the use of these expressions and arguing for their quasi-modal function. Leboff (1970) has gone one step further by classifying will among the modals of English; she considers will to be a modal that shows the highest degree of certainty.

Ulman (1972:83) suggests that this affinity between future and modal expressions is due to the element of uncertainty that is inherent both in future events and in the application of modal categories. The element of uncertainty as an inherent property of futurity is well recognized by philosophers who observe that there are ontological differences between the past and future. Gale (1968:103) writes:

Since past events have become present, they have already won their ontological diploma, unlike future events which still exist in a limbo of mere possibility.

The "openness" of the future as opposed to the "closedness" of the past is reflected in the kind of knowledge we speakers of natural languages possess and express in reporting future events. This knowledge is typically one of prediction with varying degrees of certainty. Descriptions of future events are not definite assertions but modalized utterances of presumption. Prediction is subsumed under this more general modal notion of presumption.

Given the above view that futurity is more of a modal than a temporal concept, it follows that the forms used to mark future in languages are, in fact, markers of presumptive modality. As such, they are employed in all contexts, regardless of the time reference, where presumption is involved. Thus, the use of the so-called future tense markers in utterances where futurity is not involved is in no way

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"deviant" or "special" as some linguists believe (Hornstein 1977).
On the contrary, it is predictable and explainable. In this paper I will examine the non-future uses of the 'future tensive' marker in Turkish and show that Turkish presents additional support for the above hypothesis.

Non-future Uses of the Turkish Future Marker

The morpheme -(y)EJK is analyzed as the future tense marker in Turkish; thus baľika 'begin'; baľiyajak 'he/she/it will begin'; gel 'come'; geloşim 'I will come'. Yet there are certain contexts where -(y)EJK is used despite the fact that the time reference is not future. Observe the following:

1. John - a telefon et - me, ściandi yua - yor ol - a-lat
   dat. telephone make - neg. now sleep - pro. be
   'Don't call John, he will be sleeping now.'

2. John ściandi kitapkhane - de ol - a-lat
   now library - loc. be
   'John will be at the library now.'

3. John dün - ki asnav - i geč - miś ol - a-lat
   yesterday - relative exam - acc. pass - perf. be
   ki yua - li gili - lyor
   complement face - pass smile - pro. be
   'John must have passed yesterday's exam, that is why he looks happy.'

4. Dün biri san - a telefon et - ti
   yesterday someone you - dat. telephone make - past
   -John ol - a-lat
   be
   'Someone called you yesterday.'

   'That will be John.'

What seems to be the common element for the appropriate use of these -(y)EJK utterances is the following: the speaker is dislocated either in time, as in (1-2), or in time, as in (3-4). The speaker is not in a position to make a categorical assertion. However, on the basis of his knowledge, he presumes that the situation holds true (did hold true) at the moment of speech (prior to the moment of speech), and he expresses this by employing -(y)EJK. Thus, such utterances involve epistemically qualified propositions and -(y)EJK functions as an epistemic modal. That this is the case can be seen in the -mELL counterparts of these sentences. The verbal ending -mELL is the Turkish modal that corresponds to English must/should', i.e., it is the necessary operator in Turkish. Replacing -(y)EJK with -mELL in (1-4) does not result in any significant change in
meaning. Compare (2) with (5).

5. John İmd kiğûpane - de ol - mali
now library - loc be
'John must be at the library now.'

The reader will notice a close parallelism between English and Turkish. First, the future markers will and -(y)E[P]X are used in contexts were futurity is not involved. Secondly, these contexts seem to overlap with those of the necessity operator so that the substitution of must for will and of -(y)E[P]X for -(y)E[P]X yields only a slight change of meaning. In his attempt to give a unified account of English tense-aspect, Hornstein (1977?) considers all non-future readings of will as "deviant," as coming from the underlying modal will as opposed to the "normal" uses where will is the temporal future marker. In his view, the form will is ambiguous between temporal and modal meaning.

Following Hornstein's line of analysis, we can do the same for Turkish. We can posit homophonous forms -(y)E[P]X, 'future marker' and -(y)E[P]X as modal, but what would be achieved? Would we be any closer to explaining why two totally unrelated languages like Turkish and English present strikingly similar pictures with regard to their future markers?

On the contrary, I believe this line of analysis would distort the picture by suggesting that what we find in English and Turkish is merely accidental. That is, Hornstein's line of analysis would suggest that these languages just happen to have homophonous forms for marking future and presumptive modality. Evidence from a variety of languages clearly indicates otherwise. The formal identity between the expressions of future and presumptive modality in languages can only be explained by recognizing their semantic affinity.

To return to -(y)E[P]X, the non-future uses of this suffix are almost always ignored in the grammar of Turkish. Underhill (1976:280), for example, takes the periphrastic form -mi ol-ajak (perfective be-(y)E[P]X) to be the marker of the "future perfect tense." This, of course, is due to his analysis that -(y)E[P]X marks futurity, and only futurity, in Turkish. A quick glance at (7) would reveal that his analysis is not viable. What marks future in utterances like (6) is not -(y)E[P]X, but the future time adverb.

6. John hafta - ya tes - in -1 bitir - miâ ol - ajak
week - dat. thesis - poss. - acc. finish
'John will have finished his thesis (by) next week.'

In the absence of a future time adverb and/or a future context, the event time is not interpreted to be in the future. In a neutral context, (?) can only mean 'I presume that John has finished his thesis by now.'

7. John tes - in -1 bitir - miâ ol - ajak
thesis - poss. acc. finish

There is an interesting difference between past and future adverbs
in the way they interact with -mišt olajak. Compare (8), (9), and (10).

8. John evlen - mišt olajak
get married
'John will have gotten married (by now).'

9. John gebeš some evlen - mišt olajak
last year
'John will have gotten married last year.'

10. John sene - ye evlen - mišt olajak
year - dat.
'John will have gotten married (by) next year.'

'Last year' in (9) is understood to mark the time of the supposed event. However, 'next year' in (10) is interpreted as a time by which the marriage will have taken place. In other words, while the past adverbial marks event time, the future adverbial marks a time subsequent to event time at which the results of the event are observable. Let us call this 'reference time.'

It seems that in Turkish, time adverbials in sentence initial position can only mark reference time. If 'last year' in (9) is posited to the initial position, the sentence becomes awkward; no such change is observed when 'next year' of (10) undergoes preposing.

11. ?? Gebeš sene John evlen - mišt olajak
last year get married
'Last year John will have gotten married.'

12. sene - ye John evlen - mišt olajak
year - dat.
'By next year John will have gotten married.'

This difference in the behavior of past and future adverbials should not be taken as an indication of the different functions of -(y)EŠEK (i.e., modal vs. temporal), for the same facts are observed with other modals. As with -(y)EŠEK, the periphrastic forms consisting of the perfective -mišt plus the modal can be used both for past and future reference. Moreover, the past and future adverbials present the same difference with these forms i.e., past adverbs marking event time, and future adverbials marking reference time. Compare (8-10) with the following:

13. John evlen - mišt ol - malš
get married
'John must have gotten married (by now).'

14. John on gün gebeš evlen - mišt ol - malš
ten day before/ago
'John must have gotten married ten days ago.'
15. John hafta - ya evlen - miğ ol - mâî
   week - dat.
   '(Lit): John must have gotten married (by) next week.'

16. John evlen - miğ ol - abîl - ir
   get married perf. be may/can sortst.
   'John may have gotten married (by now).' ¹

17. John dün evlen - miğ ol - abîl - ir
   yesterday
   'John may have gotten married yesterday.'

18. John yaz - a evlen - miğ ol - abîl - ir
   summer - dat.
   '(Lit): John may have married (by) next summer.'

What we observe is a very consistent pattern for modals in Turkish. In this respect, Turkish differs from English, for in the latter will have can collocate with future adverbials but may have and must have collocate only with past adverbials, not future adverbials.⁵

The use of -(y)EK as the presumptive marker in sentences with non-future reference is not limited to matrix clauses. Compare (19) with (20):

19. Mary John - un ânîmî ev - de ol - du
    gen. now home - loc. be - particip. - poss. - acc.
    â kýl - ûýor
    say - prog.
    'Mary says that John is at home now.'

20. Mary John - un ânîmî ev - de ol - â kýn - â kýl - ûýor
    gen. now home loc. be poss. acc. say - prog
    'Mary says that John will be at home now.'

In Turkish, that-complements are genitive constructions. They require that the genitive suffix be attached to the subject NP and that the possessive suffix that agrees with the subject in number and person be suffixed to the participle. The participlies are -(y)EK and -(y)E(Y)EK and choice among them is, according to Turkish grammar, governed by tense: The suffix -(y)E(Y)EK is used when the tense of the corresponding simple sentence is future; the suffix -(y)EK is used in all other cases.⁶

In the light of (20) we can see that statements like this are not accurate. The difference between (19) and (20) is clearly not one of time but one of presencce vs. absence of presumptive modality.

Now observe the modal -(y)EK in the following:

21. Mary John - un evlen - miğ ol - abîl - â kýn - in = 1 â kýl - ûýor
    gen. get married perf. be may/can poss - acc. say - prog.
    'Mary says that John may have gotten married (by now).'
   gen forty year poss loc be may/com say acc say prog.
   "Mary says that John may be forty years old."

   The modal -Phil is ambiguous between possibility, ability and
   permission readings. In utterances like (21) and (22), where the
   intended meaning is that of possibility, the use of -(y)EIX as opposed
   to -BEK is obligatory. That is, whenever -Phil is used as an epistemic
   modal, it is -(y)EIX and not -BEK that occurs in the clause. To put it
   another way, the ambiguous -Phil can be interpreted epistemically only
   when -(y)EIX is present in the clause. This implies that there is
   an affinity between epistemic modality and -(y)EIX, and it supports
   our claim that -(y)EIX is not a simple temporal marker.

   So far, we have looked at the use of -(y)EIX in non-future
   contexts. Let us now consider another context where the analysis of
   -(y)EIX as a mere future tense marker fails.

   Observe the antecedent clause of the following indicative
   conditionals:

   23. John uyu - r - sa balâsh - abil - ir - im
       sleep aorist conditional work may/can aorist 1 sg.
       "If John sleeps, I can work."

   24. John evien - ir - se Mary bok sevin - ir
       get married aorist cond. very be happy aorist
       "If John gets married, Mary will be very happy."

   25. John telefon ci - or - se beš - de tekra ara - sa
       telephone make aorist condit. five loc again look for infinitive
       - sin - a style
       poss acc say
       "If John calls, tell him to call back at five o'clock."
result of a present decision, intention, plan, cause, etc. The main clause is dependent, so to speak, on this present decision etc. and not on the future event. For example, (27) can be paraphrased as 'If John has the intention of getting married (or has decided to get married), Mary will be happy.' In other words, Mary will be happy if it turns out that John has such an intention. In (24), on the other hand, Mary's happiness is dependent on the actualisation of John's marriage.

It is true that there are cases where the element of intention, decision, etc. is implied even in the absence of -(y)ÊÈÈK. Consider the following:

28. Araba-n-â sat-ar-sa-n ben al-ér-âm car poss.-acc. sell -sorist cond. 2 sg. I buy -sorist -1 sg. 'If you sell your car, I'll buy it.'

29. Araba-n-â sat-ar-sa-n ban-a haber ver I dat. news give 'If you sell your car, let me know.'

The only possible interpretation of (28) is 'If and when you decide to sell your car, I'll buy it.' Unlike (28), (29) is ambiguous, it could mean either 'I want to be informed if and when my addressee sells his car' (i.e., after the selling takes place) or 'I want to be informed if and when he decides to sell his car.'

There is, however, a crucial difference as to the moment of decision between (28-29) and their counterparts with -(y)ÊÈÈK.

30. Araba-n-â sat-âlak-sa-n ben al-ér-âm car poss. acc. sell cond 2 sg. I buy sorist -1 sg. 'If you are going to sell your car, I'll buy it.'

31. ??Araba-n-â sat-âlak-sa-n ban-a haber ver car poss. acc. sell cond 2 sg. I dat news give 'If you are going to sell your car, let me know.'

In (30 - 31), it is no longer if and when my addressee decides to sell his car, but rather if he presently has the intention/decision to do that. I believe (31) is awkward because the consequent clause suggests the opposite of the antecedent clause, i.e., the consequent clause presupposes that the addressee is not in a position to tell 'now' whether or not he has such an intention, but the antecedent clause implies that he is. Once we change the consequent clause and make it compatible with the assumptions of the antecedent, (31) becomes perfectly natural.

32. Araba-n-â sat-âlak-sa-n, söyle say 'If you are going to sell your car, tell (me).'

The naturalness of (32) as opposed to (31) indicates that -(y)ÊÈÈK in antecedent clauses marks the present intention, decision, etc. of the
future action.

The above hypothesis predicts that, when the verb in the antecedent clause denotes a mental and/or psychological state, -(y)E$EK would not be appropriate. Normally, no conscious exercise or effort is required for achievement of such states and, therefore, they cannot be planned, programmed or decided upon. The following unacceptable sentences show that this is precisely what we find:

33. "John Mary - 1 sev - a$ek - sa even - ir
   acc like cond get married aorist
   'If John is going to like Mary, he'll marry (her)!'"

34. "John Mary - 1 tan - ya$ak - sa 18 - o al - ar
   acc recogniz cond work dat. take aorist
   'If John is going to recognize Mary, he'll hire (her)!'"

Now, consider the following sentences:

35. arab - m - 1 sat - a$ak - sa - m see al - ar - ma - sam
   car poss acc sell cond 1 sg. you buy aorist ques. 2 sg.
   'If I am to sell my car, will you buy (it)!'"

36. sanar - a gir - a$ek - sa - m san - a haber vem - ir - im
   exam dat enter cond 1 sg. you dat. news give aorist 1 sg.
   'If I am to take the exam, I'll let you know.'"

When the speaker and the grammatical subject of the antecedent clause are the same person, as in (35 - 36), the use of -(y)E$EK often implies a quasi-imperative situation in which the speaker is under the command or order of another individual. It is understood that the decision is being made by someone other than the speaker himself. Given our hypothesis for -(y)E$EK and the semantics of conditionals, it should not be surprising that we not a quasi-imperative interpretation. If -(y)E$EK indeed marks present intention/decision, as I claim it does, then the decision maker in these utterances cannot possibly be the speaker himself. If the speaker is the decision maker, his use of a conditional construction would violate Orient maxima governing conversation; in particular, the maxim of quantity which states that one should make his contribution as informative as is required. Whether or not we should analyze the quasi-imperative reading of such utterances as conversational implicatures, resulting from the interplay of what is said and the rules of conversation, is beyond the scope of this paper. It should be pointed out, however, that the imperative interpretation of -(y)E$EK utterances is not restricted to the conditionals. Like English will, -(y)E$EK is frequently used to give orders or commands.

37. "Indi do:ru yata - a gid - e$ek - sin
   now straight bed dat go 2 sg.
   'Now you will go straight to bed.'"

38. "der - in - 1 bitir - meden bu oda - den bik - ma - ya$ak - sin
   lesson poss acc finish before this room abl leave neg 2 sg.
   'You will not leave this room before you finish your lesson.'"
Turning back to conditionals and antecedent clauses, the likelihood of the fulfillment of a condition is perceived to be greater when -(y)ELIK is present than when the aorist morpheme is used. Of course, this is only natural in the light of what is said above. We can say that the fulfillment of a condition expressed in an antecedent clause containing the aorist morpheme is assumed to be merely possible, but in an antecedent clause containing -(y)ELIK, it is assumed to be probable.

Conditional sentences proved once again that -(y)ELIK is not a rare future marker. Futurity in the antecedent clause is not marked by -(y)ELIK. When -(y)ELIK is used, it indicates notions like intention, plan, etc. In the literature, it has been observed that, typically, epistemic modals do not occur in antecedent clauses where other modalities are allowed. The reason for this might be that, since antecedent clauses themselves involve epistemic modality, it would be redundant to employ another epistemic modal operator. In English, for example, may and must are interpreted deontically, marking permission and obligation, respectively, when they occur in if-clauses. The same is true for Turkish. Given this, we now find, once again, a parallelism between -(y)ELIK and other epistemic modals. If a future marker is one type of epistemic modality marker, as we have assumed, then it is predictable that future markers would not be allowed in antecedent clauses; or if allowed, they would show some other semantic function.

As we have seen, when -(y)ELIK occurs in an antecedent clause, it expresses intention, decision, etc., which are not strictly epistemic concepts.

Conclusion

Even in a relatively well-studied language like Turkish, there are areas which still require a much more thorough examination. The semantics of the verbal suffix -(y)ELIK is one such area. In this short paper, I have tried to show that this suffix has a function in the modal system of the language in addition to its function in the tense system. The modal function of -(y)ELIK has been totally ignored in the literature.

I have shown that the atemporal, modal function of this suffix is similar to that of the atemporal function of the future marker of an unrelated language like English. This similarity cannot be accidental, and should be assessed in the light of the hypothesis that futurity is as much a modal notion as a temporal one.

Footnotes

1. The capital letters stand for morphophonemic representations

E: /e, a/
D: /c, d/
I: /I, i/
K: /k, 0/

2. Actually, like English must, should, -(y)ELIK is ambiguous between epistemic and deontic readings:
eg. Abiat hånd ev - de ol - mali
now home -loc. be

(a) It is necessary that John is at home now (epis). (b) John is obliged to be at home now (deontic).

With stative verbs, the epistemic reading is more likely; the same is true with perfective and progressive aspect.

3. In both languages, the use of the future marker implies stronger presumption than the necessity operator. Yet, there seem to be differences in the interchangeability of the future marker with the modal in the two languages. It appears that in English, if the assumption is based only on circumstantial evidence, will can not be used. This is not so in Turkish. Sentence (3) demonstrates this difference in that will can not replace must in the English translation.

4. Underhill (1976), Lewis (1975), and Swift (1963) do not even mention such uses of -(y)ene in and the grammars written by Turkish linguists often spare not more than a sentence or so for these.

5. Hornestein (1977) uses these facts related to the adverbial collocations of modals as arguments for positing two wills. He argues that the fact that will have but not must have or may have can collocate with future adverbials proves that the will or will have is not a modal.
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