

The Prospective Marker in Turkish: A Unified Treatment

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0. Introduction

We argue that the Turkish suffix $-(y)AcAK$ is a marker of prospective aspect everywhere it appears.

We suggest a possible modeling within the Distributed Morphology framework for the Vocabulary Item whose phonological reflex is $-(y)AcAK$:

- Specified for prospective aspect, but
- Underspecified for category

0.1 The Future-Referring Suffix $-(y)AcAK$

The verbal functional suffix $-(y)AcAK$ is a “future-referring” temporal marker. Very generally, it falls under the class of “TAM” (tense-aspect-mood/modality).

Alone of all Turkish TAM markers, it appears in both finite and non-finite clauses.

In finite clauses, it stands in opposition to finite TAM markers such as $-Iyor$ (durative) and $-Ar/-(I)r$ (aorist).

- In finite contexts, it has been identified as marking future tense (Sezer 2001, Cinque 2001, van Schaaik 2001, Enç 2004) and, at least part of the time, prospective aspect (Cinque 2001, van Schaaik 2001, Kerslake 1998, Copley 2009)

In non-finite clauses, it stands in opposition to a small set of non-finite TAM markers, notably including $-DIK$ and $-(y)An$ (“non-future”).

- In non-finite contexts, it is usually identified as marking future tense, in opposition to $-DIK$ (as well as $-(y)An$), which are identified as marking “non-future” (Sezer 2001, Göksel 2001, Kornfilt 2003)

0.2 The Co-occurrence of *-(y)AcAK* with Other TAM Markers

The suffix *-(y)AcAK* can co-occur with other TAM markers, including (though by no means limited to) the past auxiliary (2 and 3).

In the literature on Turkish, tense is often assumed to be an iterating category. Cinque (2001) invokes Turkish as evidence for his finely articulated universal functional cartography, in which TP_{Past} is located above TP_{Future} .

- (1) MoodP_{speech act} > MoodP_{evaluative} > MoodP_{evidential} > ModP_{epistemic} > TP_{Past} > TP_{future} > MoodP_{irrealis} > TP_{anterior} > ModP_{alethic} > AspP_{habitual} > AspP_{repetitive(I)} > AspP_{frequentative(I)} > ModP_{volition} > AspP_{celerative(I)} > AspP_{terminative} > AspP_{continuative} > AspP_{perfect} > AspP_{retrospective} > AspP_{proximative} > AspP_{durative} > AspP_{progressive} > AspP_{prospective} > AspP_{inceptive (I)} > ModP_{obligation} > ModP_{ability} > AspP_{frustrative/success} > AspP_{repetitive(II)} > AspP_{frequentative(II)} > AspP_{celerative (II)} > AspP_{inceptive(II)} > AspP_{completive(II)} > V
(Cinque 2001:47-48)

He thus analyzes the so-called future-of-the-past to be the co-occurrence of TP_{past} and TP_{future} .

- (2) Dün gel-ecek-ti.
yesterday come-FUT-PAST
'He was going to come yesterday.' (Cinque 2001:54, cited from Yavaş 1980:23)

Sezer (2001) allows for the co-occurrence of three TPs: Tense1, Tense2, and Tense3.

- (3) V-Tense1-Aux-Tense2-Aux-Tense3-Agr
Gid-ecek-ø-ti-y-se-n.
go-FUT-COP-PAST2-COP-IND.COND-2SG
'If (it is the case that) you were going to go.' (Adapted from Sezer 2001:8)

In contrast, we argue *-(y)AcAK* to be a distinction of grammatical aspect.

0.3 Grammatical Aspect

Pre-theoretically, tense locates the time we're talking about with respect to an anchor—typically, the time the sentence is uttered (i.e., it tells us when something happened in relation to now).

Grammatical/viewpoint aspect tells something else about the time we're talking about—was there an event ongoing during that time? Did an event happen before or after that time?

It's important to distinguish between these categories.

- Cross-linguistically we see tenses patterning together on one hand and aspects on the other
- Conflating these categories leads to incorrect predictions and more difficulty in explaining related data
- Correctly identifying the category of a temporal piece of the grammar gives us a more accurate (and useful) picture of a language's system, and one that can be more readily compared to others

Outline of the rest of the talk

- 1 Prospectivity
- 2 Turkish *-(y)AcAK* marks prospective in finite contexts
- 3 And in non-finite contexts

1. Prospectivity

1.1 Referring to the Future

The semantics of future-referring propositions are notoriously tricky to pin down.

- The uncertain nature of the future means that languages often employ the same morphosyntactic realizations for meanings like desire, intent, realizable or unrealizable plans, offers, etc. as they do for simple prediction

There are a number of ways to refer to future times in English, for example:

- *will V* (we loosely refer to this as “future tense”)
- *be going to V*, *be about to V* (we call these “prospective aspect”)
- *be Ving*, [bare] *V* (with future adverbial; no morphological future marking; a.k.a. “futures”)

Going to and *about to* have not received much treatment in the formal literature

- In English, both (but especially *going to*) can have modal readings
- See Copley (2009) for a modal treatment of the future in English and other languages (we come to her Turkish examples below)

- While Turkish *-(y)AcAK* does have modal readings, we take its primary contribution to be aspectual

We distinguish here between future tense and prospective aspect both semantically and syntactically, basing our approach on Demirdache & Uribe-Etxebarria’s (1997 and forward) model of tense and aspect.

1.2 Prospective Within a Demirdache & Uribe-Etxebarria-esque Model

While we suggest an analysis within the Distributed Morphology framework, our basic assumptions about tense and aspect are built upon Demirdache & Uribe-Etxebarria’s model.

- They take Klein’s (1992, 1994, 1995) proposal as a starting point: relating three times (as begun for the “tenses” of English in Reichenbach 1947)
- Tenses and aspects (and time adverbs) are parallel spatiotemporal ordering predicates, each relating two times
- Tense relates the time of speech (Utterance Time, UT-T) to a reference time (*Assertion Time*, AST-T, parallel to Klein’s *Topic Time*)
- Aspect relates Assertion Time to the time taken up by the event or state (*Event Time*, EV-T, parallel to Klein’s *Situation Time*)
- Tense and Aspect can both have the meanings *before*, *after*, or *within*

“Prospective aspect”: the distinction which locates AST-T *before* EV-T

In this way, prospective can be thought of as the “opposite” of the perfect,¹ in that it reverses the relation between the two times.

The present prospective is “involved with” the future in the same manner that the present perfect is involved with the past.

- In both cases the time about which an assertion is being made is the present, but the event time is distinct—either before (perfect) or after (prospective) the AST-T

¹ As Joos (1964), for example, notes for English *be going to*.

- Both are sometimes (understandably) confused or conflated (either theoretically or grammatically) with functionally similar tense-aspect combinations
- Unmarked (or perfective) future, e.g., like the present prospective, locates EV-T after UT-T

(4) a. Present Prospective

UT-T/AST-T[] EV-T[]

b. Future Perfective

UT-T[] EV-T/AST-T[]

This aspect is instantiated to varying degrees by *be going to* and *be about to* in English.²

- *Be about to* fairly straightforwardly³ marks prospective aspect (albeit with a restriction on the distance between AST-T and EV-T)

(5) It's 4:59, which means Jeff is about to leave for the day.

- This makes a statement about the assertion time, and says that the event of leaving is after that time.

English *be going to*, on the other hand, is often more than just a marker of aspect; various types of modality (e.g., intentions and plans) are frequently involved (see especially Copley 2009).

- The time relation remains the same, regardless
- It is certainly not difficult to find examples for which there is at least no plan modal involved, e.g.:

(6) Throw her the rope! She's going to drown!

The possible presence of these modal meanings/the presence of modality in the semantics is not a problem for our identification of a construction as a marker of prospective aspect.

² Comrie (1976), Wekker (1976), and Dahl (1985), among others, have used this terminology.

³ One possible exception is the (obligatorily negative) *be not about to V*, where there may be some level of modality involved (or at least another level of meaning). *I'm not about to punch the guy just because he took my parking space* means something like "I would never VP" or "I don't intend to VP, that's preposterous." Joos (1964) describes this use as "signif[y]ing that the [speaker] is not the sort of person from whom such a deed can be expected" (p. 24).

- Turkish *-(y)AcAK* does sometimes have modal readings available.⁴ Here, however, we abstract away from the modality expressed and focus on the aspectual specification, which we hold to be prospective in all cases.⁵

1.3 The Semantic Contribution of (Prospective) Aspect

Aspect is a function that takes a property of events and returns a property of times.⁶

- It existentially quantifies over that event and places its runtime in a relation to another time (=AST-T); that time is bound by tense and set in relation to another time (=UT-T)

$$(7) \quad a. \quad \text{ASPECT} = \lambda P_{(vt)}. \lambda t_{(i)}. \exists e: [t \mathcal{R} \tau(e) \ \& \ P(e)]$$

Prospective aspect

$$b. \quad = \lambda P_{(vt)}. \lambda t_{(i)}. \exists e: [t < \tau(e) \ \& \ P(e)]$$

2. Turkish *-(y)AcAK* Marks Prospective Aspect

2.1 Finite Contexts

The Turkish finite verbal complex minimally consists of a main verb stem and a TAM marker (Sezer 2001, Göksel 2001, inter alia) (8a). This may be augmented by (among other things) the defective auxiliary *i-* hosting a clitic past tense marker (8b). The subject agreement marker is word-final in both cases.

- (8) a. çalış-ıyor-um
work-IMPERF-1SG
'I am working.'
- b. çalış-ıyor-Ø-du-m
work-IMPERF-COP-PAST-1SG
'He was working.'

In (8b), the vocabulary item *-Iyor* is clearly the exponent of aspect (imperfective), while *-DI* (hosted by the auxiliary) is the exponent of past tense.

⁴ Thanks go to an anonymous WAFL reviewer for pointing this out to us.

⁵ Compare Copley's (2009) perspective on the difference between *be going to* and *will* in English. She holds both to involve the same modal operator, but *be going to* also has a progressive operator while *will* does not.

While *-(y)AcAK* may require a modal operator as well, our claim is that prospective aspect is present in all cases.

⁶ Or, if we prefer to avoid events, Aspect could be characterized as both taking and returning predicates of times.

It is therefore reasonable to suppose that in (8a) likewise, *-Iyor* is an aspect marker, and that present tense has a null exponent.

This allows a consistent analysis of *-Iyor* as a imperfective marker, rather than an occasional exponent of a fused T.Aspect node.

(9) çalış-ıyor-Ø-um
work-IMPERF-PRES-1SG
'I am working.'

- *-(y)AcAK* has comparable distributional and interpretational patterns to *-Iyor*.

(10) a. çalış-acağı-ım
work-PROSP-1SG
'I'm going to work.'

b. çalış-acak-Ø-tı
work-PROSP-COP-PAST
'I was going to work.'

Regarding examples such as (10b), it has been claimed that both *-(y)AcAK* and *-DI* are tense markers (Cinque 2001, Sezer 2001, Enç 2004), while it has also been noted that *-(y)AcAK* is future tense in a relative sense rather than an absolute one (Göksel & Kerslake 2005).

In D&UE terms, this 'relative tense' is in fact aspect.

By analogy with (8), then, it makes sense to analyze *-(y)AcAK* as consistently realizing prospective aspect. Thus, forms such as (10a) similarly include a null present tense exponent.

(11) çalış-acağı-Ø-ım
work-PROSP-PRES-1SG
'I'm going to work.'

This brings a welcome simplification to the analysis of Turkish finite inflection.

As Sezer (2001) notes, finite sentences with copular agreement suffixes (the "z-paradigm") generally have a present tense interpretation available. The imperfective marker *-Iyor* is shown above in (9).

Exemplified below is the evidential/perfect marker *-miş* with a present reading.

- (12) Şimdi şurada otur-muş-um, dinlen-iyor-um.
 now here sit-INF.PAST1-1SG rest-CONT-1SG
 ‘Now that I have sat down here and resting...’ (Sezer 2001:11)

The only exception under previous analyses is $-(y)AcAK$, which is assumed to be future tense rather than present.

This would force us to stipulate that the copular paradigm has a present tense interpretation available in all morphological contexts *except* $-(y)AcAK$.

Our proposal avoids this awkward stipulation. Sentences like (11), where $-(y)AcAK$ is followed by a copular agreement suffix, are present tense—specifically, present prospective.

More evidence...

Copley (2009) treats finite $-(y)AcAK$ as prospective, as it patterns generally with English *be going to* and the Indonesian prospective. She notes, for example, that prospectives are infelicitous for making offers (for which English prefers the future *will* and Turkish the aorist *-Ar*).

- (13) a. I’ll make coffee. offer ok
 b. I’m going to make coffee. #offer

- One could very naturally say (13a) when one is making an offer to someone
- In such a situation, the speaker’s carrying out the event is contingent on whether the interlocutor agrees (“Thank you, that would be nice.”) By the nature of offers, the speaker will not make coffee if the interlocutor does not agree (“No, thank you, that’s not necessary”)
- (13b) on the other hand cannot be interpreted as an offer. It feels rather like a statement of the speaker’s plan, not contingent on the interlocutor’s approval

In Turkish, the aorist is good for offers, while $-(y)AcAK$ is more a statement of a planned event, and not good as an offer.

- (14) a. Ben kahve yap-ar-ım.
 I coffee make-AOR-1SG
 ‘I’ll make coffee.’ offer ok
- b. Ben kahve yap-acağ-ım.
 I coffee make-PROSP-1SG
 ‘I’m going to make coffee.’ #offer (adapted from Copley 2009:98)

3. Non-finite Contexts

3.1 Argument Clauses

One of the most common subordination strategies in Turkish is non-finite clauses where the verbs take their subject agreement from the nominal paradigm (the subject—when overt—is in the genitive case).

Instead of the array of TAM markers found in finite clauses, non-finite clauses have nominal suffixes, notably including *-DİK* and *-(y)AcAK*.

The temporal distinction between the two is generally characterized as follows (Sezer 2001, Göksel 2001, Kornfilt 2003):

- (15) *-(y)AcAK*: future
-DİK: non-future

In a paper very much in the spirit of the present work, Kerslake (1998) suggests that the distinction is rather prospective (*-(y)AcAK*) versus non-prospective (*-DİK*).

The prospective analysis proves to be more defensible than the future analysis.

Clauses formed with *-DİK* are ambiguous with regard to tense and aspect. The only reading that is categorically ruled out is prospective.

- (16) Türkiye-de çalış-tığ-ın-ı söyle-di
 Turkey-LOC work-NOM-3SG-ACC say-PAST
 ‘He said that he works/worked/is working/was working in Turkey.’
 Impossible: ‘He said that he is going to work/was going to work in Turkey.’

Clauses formed with *-(y)AcAK* are likewise ambiguous with regard to tense, but have a consistent prospective aspectual interpretation.

- (17) Türkiye-de çalış-acağı-ın-ı söyle-di
 Turkey-LOC work-NOM.PROSP-3SG-ACC say-D1
 ‘He said that he is/was going to work in Turkey.’
 Impossible: ‘He said that he works/worked/is working/was working in Turkey.’

N.B.

- If one wished to maintain the future tense analysis, one might argue that the tense in (17) is future, but that it is future in the relative sense, i.e., either future-of-the-present or future-of-the-past.
- However, this is not simply a matter of expanding the definition of future to include relative futures. You would in fact need to *exclude* the absolute future, yielding a most awkward dichotomy:

- (18) *-(y)AcAK*: relative future (but not absolute future)
-DIK: absolute future and non-relative future

3.2 Temporal Clauses

This comes into sharper focus in temporal clauses.

Non-finite clauses may compose with the postposition *zaman* ‘time’ or the locative suffix *-DA* to form a temporal adjunct clause.

When *-DIK* is used as the nominalizer, tense and aspect are ambiguous. What is especially noteworthy here is that a future tense reading is available with *-DIK*, which is supposedly a non-future exponent.

- (19) a. Mehmet-le buluş-tuğ-unuz zaman nere-ye git-ti-niz?
 M.-with meet-NOM-2PL time where-DAT go-PAST-2PL
 Past interp.:
 ‘When you met with Mehmet, where did you go?’
- b. Mehmet-le bul-uş-tuğ-unuz zaman nere-ye gid-iyor-sunuz?
 M.-with meet-NOM-2PL time where-DAT go-IMPERFECTIVE-2PL
 Present (habitual) interp.:
 ‘When you meet with Mehmet [as you habitually do], where do you go?’

- c. Mehmet-le bul-uş-tuğ-unuz zaman nere-ye gid-ecek-siniz?
 M.-with meet-NOM-2PL time where-DAT go-PROSP-2PL
 Future interp.:
 ‘When you meet with Mehmet [next week/month, etc.], where are you going to go?’

It’s clear from the above that *-DIK* can express future in the absolute sense, from the point of view of the present. This is precisely what *-(y)AcAK* cannot express.

When *-(y)AcAK* appears in a temporal clause, the reading is similarly ambiguous for tense—both future (a) and past (b) reference are possible—while the prospective meaning is consistent across interpretations.

- (20) a. Mehmet-le bul-uş-acağ-ınız zaman haber ver-in, ben de gel-e-yim.
 M.-with meet-PROSP-2PL time news give-2PL 1SG too come-OPT-1SG
 Future interp.:
 ‘When you’re going to meet with Mehmet, let me know, I’ll come too.’
- b. Mehmet-le bul-uş-acağ-ınız zaman niçin haber ver-me-di-niniz?
 M.-with meet-PROSP-2PL time why news give-NEG-PAST-2PL
 Past interp.:
 ‘When you were going to meet with Mehmet, why didn’t you let me know?’

The most natural way to capture this distinction is with aspect.

- (21) *-(y)AcAK*: prospective
-DIK: non-prospective

3.3 Distributed Morphology Analysis

We suggest a morphosyntactic analysis within the framework of Distributed Morphology (Halle & Marantz 1993).

Distributed Morphology is a realizational framework: it separates the phonological instantiations of pieces of inflection from their syntactic properties.

A “morpheme” (terminal node) is a bundle of morphosyntactic features whose phonological features are not specified until after the syntax (the principle of *late insertion*).

A Vocabulary Item (VI) is a relation between a phonological string and its morphosyntactic context for insertion.

- Vocabulary Items may be *underspecified*, meaning that a VI's set of features may be a proper subset of those that could be listed at the terminal node in question
- The Subset Principle (Halle 1997) states that a VI can only be inserted into a terminal node if the set of features it is specified for is a subset of those specified for the terminal node
- Of particular importance for us here, VIs may be underspecified for category
- This allows us to capture the facts of the appearance of *-(y)AcAK* in both finite and non-finite contexts without resorting to stipulation

In determining the feature specification of the VI *-(y)AcAK*, we need to accomplish two things:

1. Allow it to be inserted in both finite and non-finite contexts by excluding any features that would prevent its insertion in either context
2. Identify a feature set that is compatible with all temporal contexts in which this VI is inserted

We propose that both aims can be achieved with the following feature set:

(22) *-(y)AcAK*: [+Prospective]

Since it is specified for prospective aspect, it can only be inserted in a node that has this feature.

This predicts that *all* occurrences of *-(y)AcAK* should be amenable to a prospective analysis.

In order to get the right results, the other TAM markers in Turkish must be specified for finite or non-finite (nominal) contexts.

- We propose the features Fin (finite) and Nom (nominal).
- We exemplify this with the finite imperfective marker *-Iyor* and the non-finite marker *-DIK*.

- (23) *-Iyor*: [+Imperfective, +Fin]
-DIK: [+Nom]

As the only aspectual VI underspecified for finiteness, the prospective marker *-(y)AcAK* can appear in both finite and non-finite contexts to realize the prospective.

4. Conclusion

We have argued that Turkish *-(y)AcAK* is a marker of prospective aspect across the board:

- In finite contexts
- In non-finite (nominalized) contexts

While *-(y)AcAK* is indeed a marker of future reference, it is not a marker of future *tense*.

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