Evidentiality from Anterior Aspect: A Unified Analysis of Turkish *-mIş*

Despite extensive work on evidentiality across information-source, modal, and temporal approaches (Willett 1988; Faller 2004; Matthewson et al. 2007; Murray 2010, a.o.), its typological relation to perfect/anterior aspect remains comparatively understudied (Izvorski 1997; Bowler 2018, a.o.). This gap is particularly striking in Turkish, a canonical evidential language in which *-mIş* has both anterior and evidential uses, but the relation between these uses has yet to be fully explored (cf. Slobin & Aksu 1982; Schenner 2010; Şener 2011; Meriçli 2016; Korotkova 2016, a.o.). This study proposes a unified analysis in which *-mIş* encodes anterior aspect only. The indirect evidential inference arises (as not-at-issue content) from a null Tense that introduces a non-future learning time (in the spirit of Koev 2011, 2017), and *embeds* anterior aspect.

Empirical Picture Turkish has two morphemes for expressing past events: the past *-DI* and the so-called evidential *-mIş*. *-DI* generally conveys that the speaker has direct evidence for the event (1), while *-mIş* encodes an indirect evidential interpretation, arising from reported or inferred information (2). [Contexts for (2): Mert told me so. (hearsay)/ I am seeing or saw Ali's sweaty gym clothes. (inference)] But this generalization is not uniform (Slobin & Aksu 1982; Izvorski 1997; Şener 2011; Johanson 2018, a.o).

(1) Ali koş-tu.
Ali run-PST
'Ali ran.'

(2) Ali koş-muş.
Ali run-EVID
'Ali ran, as I heard/inferred.'

① Non-past readings: Like *-DI*, *-mIş* can embed aspect markers like the imperfective *-Iyor* and the prospective *-AcAK*, without losing its indirect evidential reading (3). But in these cases, *-mIş* is no longer confined to past readings: (2) only receives a past reading, but (3a) can be past or present, (3b) can be past or future.

(3) a. Ali (dün eve geldiğimde / şuanda) dışarıda **koş-uyor-muş**.
Ali yesterday home when.I.came now outside run-IPFV-EVID
'Ali was running outside (when I came home yesterday), as I heard/inferred.'
'Ali is running outside (now), as I heard/inferred.'

b. Ali (dün eve dönmeden önce / yarın) dışarıda **koş-acak-mış**.
Ali yesterday home returning before tomorrow outside run-PROS-EVID
'Ali was going to run outside (before returning home), as I heard/inferred.'
'Ali will run outside (tomorrow), as I heard/inferred.'

② Pure anterioriority: *-mIş* can also occur under higher TAM markers, where the evidential inference disappears and *-mIş* contributes only anterior aspect. In (4a), it appears under *-DI*, placing the event time before a past reference time. In (4b), *-mIş* is under the prospective aspect, placing it before a future reference time.

(4) a. Serpil Ankara'ya vardığında, Ali **koş-muş-tu**.
Serpil Ankara.to arrive.when Ali run-ANT-PST
'When Serpil arrived in Ankara, Ali had run.'

b. Serpil Ankara'ya vardığında, Ali **koş-muş ol-acak**.
Serpil Ankara.to arrive.when Ali run-ANT COP-PROS
'When Serpil arrives in Ankara, Ali will have run.'

③ Obligatory evidentiality: *-mIş* cannot have a strictly aspectual use (i.e., present-perfect) without giving rise to indirect evidentiality when it is not embedded under another TAM morpheme. For example, (2) cannot simply mean 'Ali has run.' These facts pose *a central puzzle*: why does *-mIş* behave as an evidential in matrix uses, yet surface as a purely anterior marker when embedded under higher TAM morphology?

Analysis I argue that *-mIş* is an anterior aspect marker (5) (cf. Şener 2011). Adopting views in which transition from events to times occurs below Aspect (i.e., encoded in the VP) (Coppock & Champollion 2025), the Anterior head (ANT) takes a predicate of times P to return a predicate of times t such that t is preceded by a time t' of which P is true (Demirok & Sağ 2023, cf. Pancheva & von Stechow 2004). Consider its combination with *-DI* in (4a) [see (6)]. Past tense fixes the reference time t_R prior to the speech time t_s. When *-mIş* is embedded under *-DI*, the result asserts a time interval $t_R < t_s$ that is preceded by the run time $\tau(e)$ of an event e of Ali running **(fact ②)**. *koş-muş-tu*: [[VP + ANT] + T_{PAST}]: $\tau(e) < t_R < t_s$

(5) $[\![\text{ANT}]\!] = \lambda P.\, \lambda t.\, \exists t' \,[\, t' < t \,\wedge\, P(t')\,]$

(6) $[\![(4a)]\!] = \exists t\,[\, t < t_s \wedge \exists t'\,[\, t' < t \wedge \exists e\,[\, \tau(e) = t' \wedge run(e) \wedge Ag(e) = a\,]]]$

Inspired by Koev (2011, 2017), I propose that, alongside the plain past tense *-DI*, Turkish has a null tense (T_{EVID}) that is anchored to a learning event (e_L) preceding or coinciding with the speech time (7) and that obligatorily selects for an anterior AspP. Indirect evidentiality arises not from *-mIş* itself, but from the temporal configuration created when *-mIş* appears under T_{EVID}. To illustrate, consider (2) [see (8)]. The null T_{EVID} introduces a learning event time $\tau(e_L) \leq t_s$, (e_L = the event of the speaker acquiring evidence for their claim: that Ali ran; Koev 2017) and is composed with ANT AspP. This asserts a time, at which Ali's running event occurs and precedes $\tau(e_L)$. *koş-muş*: [[VP + ANT] + T_{EVID}]: $\tau(e) = t_R < \tau(e_L) \leq t_s$

(7) $[\![T_{EVID}]\!] = \lambda Q.\, \exists t\, \exists e_L\, [\, t \leq t_s \wedge \tau(e_L) = t\ \wedge Q(t)\,]$

(8) $[\![(2)]\!] = \exists t, e_L\, [\, t \leq t_s \wedge \tau(e_L) = t\ \wedge \exists t'\, [\, t' < t \wedge \exists e\, [\, \tau(e) = t' \wedge run(e) \wedge Ag(e) = a\,]]]$

The *past* reading is due to ANT locating the event time before the learning time. The *evidential* reading arises from the reference time preceding the learning time. In clauses with T_{EVID}, t_R is the time ANT places before $\tau(e_L)$. Thus, in (2), t_R *is* the event time and, preceding the acquisition of the information, it corresponds to speaker ignorance. Notice that $\tau(e_L)$ cannot be t_R (likely due to not-at-issueness; see below), diagnosed via adverbials: adding *dün* 'yesterday' to (2) specifies when Ali ran, not when the speaker learned it.

Indirect evidential inferences require a reference time that precedes the learning time and relates to the event time. This amounts to viewing the event from a time prior to the speaker's learning of it. Crucially, t_R need not equal the event time (contra Koev's assumption). We see this when the ANT+T_{EVID} bundle embeds another aspect. In (3a), t_R precedes the learning time via ANT and is contained in the event time via the imperfective aspect (9). Since the event time itself need not precede the learning time, it may extend into the speech time, yielding a present reading, or culminate before it, yielding a past reading **(fact ①)**. *koş-uyor-muş*: [[[VP + IPFV] + ANT] + T_{EVID}]: $t_R \subseteq \tau(e)$ & $t_R < \tau(e_L) \leq t_s$ (With prospective (3b), t_R precedes $\tau(e_L)$ and $\tau(e)$, yielding future or past readings based on where $\tau(e)$ is placed relative to t_s.)

(9) $[\![(3a)]\!] = \exists t, e_L [t \leq t_s \wedge \tau(e_L) = t \wedge \exists t' [\, t' < t \wedge \exists t'' [\, t' \subseteq t'' \wedge \exists e\, [\, \tau(e) = t'' \wedge run(e) \wedge Ag(e) = a\,]]]]$

This makes *-mIş* felicitous even when the speaker *ultimately witnesses* the event: after failing to find Ali in the house and then seeing him running outside, the speaker may utter (3a). This is predicted since t_R, although contained in $\tau(e)$, precedes $\tau(e_L)$, thus corresponding to a non-aware stage for the speaker. This also explains mirative uses of *-mIş*, where the learning event simply elicits surprise (cf. Smirnova 2013).

Matrix *-mIş* cannot have a strictly aspectual (present-perfect) use without also encoding evidentiality since Turkish lacks present tense (Yavaş 1980) **(fact ③)**. This contrasts with forms like *koş-uyor* (run+IPFV), which also lack overt tense but receive present readings ('(s)he is running'). In the absence of tense, t_R is assumed to default to t_s: $\tau(e)$ contains t_s and thus yields a present reading. Following Kehler (2002), ANT cannot rely on default anchoring, thus requires Tense or a higher Asp for t_R to be related to t_s (4).

Discussion Evidential inferences show signs of not-at-issueness, such as projection (*Ali koşmamış* 'Ali didn't run, as I heard/inferred') and non-challengeability: responding to (2) with 'it's not true' targets only the at-issue content (that Ali ran). The evidential component is also informative (cf. Sauerland & Schenner 2007): responses like *Bir dakika ya, bunu duyduğunu/anladığını bilmiyordum* ('Hey, wait a minute, I did not know that you heard/inferred this') are infelicitous (von Fintel 2004). To capture these patterns, the temporal semantics proposed here can be supplemented with the dynamic semantic accounts (on par with apposition) in Murray (2014) and Koev (2017) (see also QUD-based accounts; Faller 2019, Korotkova 2020). In Koev's analysis, a Declarative *op* introduces a proposition p, in which the described event holds. p is added to the context set if accepted by the addressee (at-issue), while the proposition that the speaker learned p is directly added to the context set (not-at-issue). Also, my analysis predicts full speaker commitment to the at-issue content. This holds for inferential uses, but hearsay uses show variation: some speakers accept continuations to (2) as 'but I am not sure/this is not true,' others reject them unless (2) contains *güya* 'allegedly' or *diyorlar* 'they say.' I attribute this to a null element of this sort for some speakers, triggering perspective shift.

Conclusion This study identifies anteriority as a key component of Turkish evidentiality. This is obtained without encoding information source (cf. Şener 2011) or spatial distance between the learning and described events (cf. Koev 2017), accounting for evidential uses of *-mIş* even when the speaker *ultimately witnesses* the event (see also late realization cases; Koev 2011). The analysis does not rule out modal enrichment; future work may explore such interactions. **References.** *All references are hyper-linked in text.*