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Different Interpretations of a Turkish Evidential Marker and Different Speaker Judgments

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Abstract Turkish has a suffix, *-mIş*, which is interpreted differently, depending on its position in a verb: It can be an evidential, a marker of past tense/perfectivity, or both. We take those positions as reflective of the clausal architecture. Root clauses with simple versus complex verbal predicates and with non-verbal predicates are considered, as well as embedded nominalized versus tensed clauses. All facts are covered by analyzing *-mIş* as a *single* morpheme whose interpretations are dictated by its position in the clausal spine, i.e. whether it is in a lower functional projection or, under a cartographic approach, in a higher (and, we claim, copular) projection. The traditional descriptions that differentiate between two morphemes, *-mIş* and *-ImIş*, are rejected. Two surveys, conducted to check different interpretations of this morpheme, support the analyses proposed in this paper.

Keywords Evidentiality. Perfectivity. Inflected copula. Participial verb stems. Evidential morphemes in the clausal architecture.

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1 Introduction: *-mış* as a Verbal Marker of Evidentiality

1.1 Summary, and Basic Facts: *-mIş* on Simple Versus Complex Verbs

Turkish has a suffix, *-mIş*, which is interpreted differently, depending on its position in a verb: It can be an evidential, a marker of past tense/perfectivity, or both. This paper takes those positions as reflective of the clausal architecture. Root clauses with simple versus complex verbal predicates and with non-verbal predicates are considered, as well as embedded nominalized versus tensed clauses. All facts are covered by analyzing *-mIş* as a *single* morpheme whose interpretations are dictated by its position in the clausal spine, i.e. whether it is in a lower functional projection or, under a cartographic approach, in a higher (and, as it is claimed here, a copular) projection. The traditional descriptions that differentiate between two morphemes, *-mIş* and *-ImIş*, are rejected. Two surveys, conducted to check different interpretations of this morpheme, support the analyses proposed in this paper. However, a relatively small amount of variation was observed with respect to the intuitions of the native consultants; this variation was somewhat larger in the second survey that addressed embedded non-nominalized clauses, compared to the first survey, which addressed complex verbs with inflected copulas in simple clauses. The apparent optionality of the positions of *-mIş* in a verb, as well as the variation in native speaker judgments observed in the surveys, motivates this paper as a contribution to a volume which includes studies on optionality and variation.[1]

Let us start with illustrating *-mIş* in a *simple* verb, where it has evidential and reportative meanings:

(1) Oya iş-e erken git-miş.
Oya work-DAT early go-mIş
Reportative: 'Oya went to work early (so I am told)).'
Evidential: 'Oya (apparently) went to work early.' (I see that her breakfast things are lying around.)

Note that the verb, in addition to its evidential ('apparently, as concluded from the evidence available', or 'as reported by others')

1 The comments of two anonymous reviewers and of the editors are gratefully acknowledged. I am also grateful to Anna Cardinaletti, for her friendship as well as her work, which offered me very strong motivation to pursue the study reported on here. Special thanks are due to Atilla Kocabalcıoğlu, who formatted the paper.

connotations, also has a past tense or perfective interpretation in these examples.

Let us now look at complex verbs. Under 'complex verbs', I mean verbal morphology that exhibits more than one Tense/Aspect/Mood (TAM) morpheme. The examples in (2) illustrate such combinations of two TAM morphemes, with *–mIş* as the second such morpheme. In these combinations, the first TAM morpheme is a tense and/or aspect marker. The combination of the verbal stem and this first TAM marker is a participle. In order to become a finite verbal predicate, this participle needs a copula which is inflected with a second TAM marker. This analysis of 'complex verbs' with more than one TAM marker as consisting of a participle, followed by an inflected copula, is found in most traditional as well as generative scholarship on the Turkish verb (see, for example, the articles in Erguvanlı Taylan (2001) and their references).

The interpretation of *-mIş* as the second TAM marker is similar to the interpretation of *-mIş* in simple verbs as in (1), insofar as it has reportative or evidential interpretations. However, it does not have the past tense/perfective interpretation illustrated in (1). This is illustrated in the examples (2a), (2b), and (2c), whose temporal interpretations are dictated by the first TAM morpheme:

(2) a. Oya iş-e erken gid-ecek-miş.
Oya work- DAT early go- FUT-mIş
Oya will go to work early (so I am told).'

b. Oya iş-e otobüs-le gid-iyor-muş.
Oya work- DAT bus-with go- PROG -mIş
Oya goes to work by bus (so I am told).'

c. Oya iş-e otobüs-le gid-er-miş.
Oya work- DAT bus-with go- AOR -mIş
'Oya (habitually) goes to work by bus (so I am told).'

One rather remarkable property of *-mIş* is the fact that it can occur more than once in the morphology of a verb, i.e. it can be part of complex verbal morphology, whereby the first instance fulfils the function of any such first instance of TAM morphology as in (2), in having tense/aspect connotations, and where the second instance has evidential/reportative interpretations:

(3) Oya iş-e otobüs-le git-miş-miş.
Oya work-DAT early go- PERF -mIş.
'Oya has gone to work by bus (so I am told).'

It is (3) which is particularly interesting, due to the repetition of *-mIş*. The nature of such sequences will become clear later in the paper.

Let us now turn to another property of first versus second instances of TAM morphemes, and especially of *–mIş* as a first versus second instance, namely with respect to stress:

(4) Geçen akşam Oya opera-ya git-**miş**-ti; bu akşam sinema-ya
recent evening Oya opera- DAT go-**mIş**-PST this evening cinema- DAT
gid-**ecek**-miş.
go-FUT-mIş
'The other evening, Oya went to the opera (lit.: had gone to the opera); this evening, she will (reportedly) go to the movies.'

The boldfaced morphemes are stressed. Note that in both verbs, it is the penultimate morpheme (and syllable) which are stressed. Given that the usual word-level stress in Turkish is word-final, this means that the word-final morphemes are clitics, because they cannot bear stress, despite their word-final position. What kind of clitics can they be?

They must be inflected copulas, as mentioned at the beginning of this section; indeed, there are alternative constructions where these morphemes are not cliticized, but where the bound root copula *i-* shows up with the same inflections:

(5) Geçen akşam Oya opera-ya git-**miş** i-di; bu akşam sinema-ya
recent evening Oya opera- DAT go-**mIş** COP-PST this evening cinema- DAT
gid-**ecek** i-miş.
go-FUT COP-mIş
Same translation as in (4).

1.2 Preliminary Observations and Some Discussion of a 'Traditional' Proposal

In complex verbs, we observe two losses of interpretation of *-mIş* with respect to its occurrence in simple verbs: 1. The lower *-mIş* in a complex verb construction loses its evidential interpretation and can only be interpreted as a perfective; 2. The higher *-mIş* in such a complex verb construction loses its tense/aspect interpretation as past tense/perfective, and can only be interpreted as an evidential. We shall return to both observations and attempt to offer an account for them.

A traditional analysis of the *-mIş* which is the 'second TAM marker' in complex verb constructions is to say that it is a related, but different

morpheme, namely *-ImIş*, which shares with *-mIş* the 'indirectivity'[2] component, but not the past tense connotation (Comrie 2000, Csató 2000, Johanson 1971 and 2000, among others). But this would mean that for the regular past, *-DI* (as in (4)), there should also be a second, related but separate morpheme *–IdI* (as in (5)) – clearly not a welcome overall description. Obviously, it would be more economical and explanatory to say that in both instances, we are dealing with the copula, and that the copula can bear 'tense' morphemes, or more exactly, morphemes of the TAM type. In (5), we see that the copula *i-* can carry either the 'regular past' suffix *-DI*, or the evidential *-mIş*, and in (4), those combinations of the copula and TAM suffixes are cliticized to the verbal stem.[3]

An advantage of the copula-based analysis of the 'outer *-mIş*' (with the proviso that an account of the loss of a tense interpretation when used with a copula will be given) is its interpretation as not past tense (as the -inner *-mIş*'), but as non-future in general with respect to tense, given that this is the interpretation one gets with the copula when used with non-verbal predicates such as nouns and adjectives:

(6)	a.	Oya	çok	güzel	bir	kadın-mış	/kadın i-miş.
		Oya	very	beautiful	a	woman-mIş	/woman COP -mIş
		'Oya is said **to be**/**to have been** a very beautiful woman.'[1]					
	b.	Oya	çok	hasta	-y	-mış/hasta i-miş	
		Oya	very	sick	-cop	-mIş/sick COP -mIş	
		'Oya is said to be/to have been very sick.'					

1 The ('outer') future tense suffix *–(y)AcAK* must attach to a different copular or auxiliary element, namely *ol-*. This paper will not address the variation between these two copular (or auxiliary) elements, namely *i/-I* and *ol-*; this is why (6) does not include examples with the future tense.

The literature mentioned above, where the copula inflected with *-mIş* is viewed as a morpheme separate from *-mIş*, namely *-ImIş*, claims that *-ImIş* differs from *-mIş* in a number of additional respects: it attaches only to non-verbal stems such as predicate nouns or adjectives, as in (6), or to 'non-finite' verbal forms such as participles, as in (4) and (5). This would mean that in (4) and (5), the stems inflected with TAM morphemes, such as the 'inner *–mIş*' and the future tense '*-yAcAK*' in these examples are participles and thus not 'finite'. Under that approach, *-mIş* would attach only to 'finite' verbs, and the putative

2 "Indirectivity" is the terminology used in the above-mentioned works and corresponds to what I have been referring to as 'evidentiality'.

3 I refer to the copula as *i*, and to its cliticized form as *-I*, to signal the fact that the cliticized (inflected) form undergoes vowel harmony as determined by the stem's last vowel, as illustrated in (6); the non-cliticized copula does not undergo vowel harmony.

-ImIş would attach to 'non-finite predicates'. This would further mean that where 'complex verbs' are concerned, the stems with a lower TAM morpheme are participles and thus are 'non-finite'. Two main pieces of empirical evidence for that analysis are two facts mentioned earlier: 1.*-mIş* is not exceptional with respect to word-level stress, while the (putative) *-ImIş* is: it is pre-stressing; 2. *-mIş*, as mentioned earlier, has, simultaneously, evidential as well as past/perfect interpretations, while the (putative) *-ImIş* has only evidential interpretations. Please note that while agree with this traditional analysis of the verb stem and the first TAM morphemes as participles, I do not agree with the claim that *-ImIş* is a different morpheme from *-mIş*. I now turn to a discussion of the reasons for my disagreement.

1.3 Critique and Other Explanatory Options

While this paper agrees with the analysis of these verbal stem forms with a first layer of TAM morphemes as participles, this analysis does not force us to characterize the sequence of the copula and its inflection for *-mIş* as a morpheme which is totally different and independent from the ('inner') *-mIş*. Instead, this paper claims that there is no suffix *-ImIş* at all, but only a single suffix *-mIş*, which can attach either to a lexical main verbal stem, as in (1), or to a copula, as in (4) through (6), as well as in the examples in (2). To repeat for clarity, the paper claims that *-ImIş* is nothing other than *-(I)-mIş*, with *-I*, the cliticized copula, surfacing as a palatal glide after vowels as in (6b), or getting deleted after consonants, as in (6a). What I referred to earlier as 'complex verbs' would thus consist of a participle and a copula, the latter carrying *-mIş* (or other TAM inflections), and, ultimately, agreement inflections, as well.

The fact that what this paper analyzes as an inflected copula is pre-stressing (while 'lower' TAM morphology is not) does not constitute a problem for this approach: what is pre-stressing is not the (higher) TAM morphology, but rather the copula itself; this stress-related behavior is exactly what is expected from a cliticized item (cf. Kornfilt 1996 for a detailed discussion of this point).

As for the loss of the past tense/perfective interpretation of the 'higher' *-mIş*, we shall return to that point, as promised. For the time being, let us just say that the lack of past tense interpretation of the copular *-mIş* is not a property inherent in this suffix, but rather a consequence of its position in a higher layer of the clausal architecture. Let us now look at the sequence of participle and inflected copula and observe additional properties.

The complex verbs behave like compounds rather than simple words in a number of respects; e.g. the polar question particle *-mI* precedes the 'outer' *-mIş-*, but follows the -'inner' *-mIş-*, i.e. the participle:

Inner *-mIş* with a simple verb, *followed* by *-mI*:

(7) a. Oya dün opera-ya git-**miş-mi**?
Oya yesterday opera- DAT go-**mIş-Q**
'(Is it said that) Oya went to the opera yesterday?'

Reversing this order leads to ill-formedness:

(7) b. *Oya dün opera-ya git **-mi-miş**?
Oya yesterday opera- DAT go-Q- mIş
Intended: Same translation as in (7a).

Outer *-mIş* (i.e. copular *-mIş*) with a complex verb, *preceded* by *-mI*:

(8) a. Oya yarın opera-ya gid-ecek-**mi-y-miş**?
Oya tomorrow opera- DAT go- FUT -Q- COP -mIş
'Will Oya supposedly go to the opera tomorrow?'

Reversing the order, yielding the order in (7a), results in ill-formedness:

(8) b. *Oya yarın opera-ya gid-ecek-**miş-mi**?
Oya tomorrow opera- DAT go- FUT -mIş-Q
Intended: 'Will Oya supposedly go to the opera tomorrow?'

Note that in (8b), as elsewhere, the cliticized copula (which, as mentioned earlier, is the palatal glide, the result of *i* cliticizing to the phonological host) is deleted after a consonant (as, for example, in (6a), as well).

'Outer' *-mIş* (i.e. copular *-mIş*), with a non-verbal predicate, *preceded* by *-mI*:

(9) a. Oya güzel mi-y-miş?
Oya beautiful Q- COP -mIş
'Is/was Oya supposed to be/ to have been beautiful?'

Here, too, the question particle and *-mIş* can't invert:

(9) b. *Oya güzel miş-mi?
Oya beautiful mIş-Q
'Is/was Oya supposed to be/ to have been beautiful?'

Assumption: The Q-particle *-mI* attaches to the lowest TAM morphology of a verbal predicate, i.e. to a participle, or it attaches to an inherently non-verbal predicate, such as a nominal or adjectival one, rather than to the inflected copula. (This phenomenon, as well as additional evidence for analyzing 'complex verbs' as consisting of a sequence of participle and inflected copula, is discussed in Kornfilt 1996).

Interim summary: The evidential reading for *-mIş* is the only (for some speakers, the much stronger) one if the suffix is an 'outer' instance of *-mIş*, i.e. if it is in the higher regions of the phrasal architecture. When there are two instances of *–mIş*, namely one attached to the main verb, and one attached to the copula (or to the auxiliary *ol-*, which this paper won't address, as mentioned earlier), there is a division of labor, descriptively speaking: the lower instance can only be the perfective; it can't be an evidential; in contrast, the higher instance of *-mIş* expresses evidentiality, and not aspect or temporality. One can say that, descriptively speaking, their functions are in complementary distribution.

1.4 Survey Addressing the Interim Summary

These observations were checked via a preliminary survey, involving 22 native speakers of Turkish, all of whom had at least a first university degree; their ages varied between 30 and 80. The survey was conducted via email. A questionnaire with examples involving simple tensed verbs with the regular (*-DI*) and 'evidential' (*-mIş*) past, as well as with examples involving 'complex verbs' with both tense forms as the inner and outer TAM morphology was devised; a third series of examples involved non-verbal predicates (i.e. nominal and adjectival predicates) marked with either one of the past tenses. For each construction, three examples were given. The survey was sent out with questions directed towards interpretations of evidentiality of the lower versus higher instances of *–mIş* and *–DI*; e.g. for simple verbal predicates: 'Did Oya definitely go to the opera, or did people claim that she did?'; for 'complex' verbal predicates involving lower *–mIş* and higher *–DI*: "Did Oya go to the opera while Ali went to the movies, or did people report that Oya went to the opera while Ali went to the movies?"; for 'complex' verbal predicates involving lower progressive or aorist/habitual aspects and higher *–mIş* and higher *–DI*: 'Do or did people report that Oya is/was going to/is or was in the habit of going to the opera?'

The results of this survey were overwhelmingly homogeneous; the observations this paper (and most of the literature) has reported so far were (by and large) confirmed: when *–mIş* is high, i.e. when it is the 'outer' TAM morpheme, it expresses evidentiality; but when it is the *only* TAM morpheme, it *also* expresses past tense/perfective aspect. It expresses *only* the latter, when it is the lower

TAM morpheme in a 'complex' verb; in other words, when it is part of a *participle*, it does not express evidentiality, but *only* perfectivity. (The first observation was somewhat more heterogeneous than the others; for three speakers out of the twenty two, this was the much stronger, but not the only interpretation, i.e. those speakers could get the perfectivity/past interpretation for the 'outer' -mIş, but as a much weaker, secondary meaning. I will not attempt to explain the reports of this minority group, other than hypothesizing that this may be a new tendency, apparently expanding perfectivity from a low functional domain to a higher one, because these speakers might treat the copula as a main verb which can be inflected with lower functional categories, such as aspect; the existence of such speakers deserves further study with a much larger group of participants.)

2 Proposed Account of These Facts

Why should the facts reported under the interim summary, confirmed (by and large) via the survey, hold?

As we have seen, one part of the proposed account is to claim that evidentiality is housed high. It is important to note that Cinque (2001) made a similar claim, within a general cartographic approach, which places aspect in the lower regions of the clausal architecture, and evidentiality in higher regions of the clausal spine.[4] I propose that the reported observations and judgments offer some motivation to split

4 Cinque (2001) addresses suffixes in Turkish whose orderings in verbs seems to be optional, in the sense of being able to appear in different positions in the word. The study shows that different meanings go along with those different positions. While the paper focuses on the ability suffix *-(y)Abil*, which has ability and permission interpretations when it is low, and possibility interpretations when it is high, the study also mentions, in passing, *-mAlI*, which has obligation interpretations when it is low, and epistemic interpretations when it is high, as well as *-mIş*, whose different interpretations, linked to low versus high placements we have seen in the current study – interpretations which, as was mentioned earlier, have been described in older, traditional literature, as well. If Cinque (2001) is correct with respect to a general cartographic approach to a number of different suffixes, rather than only one, this is an important argument not only against the traditional analysis of *-ImIş* as a separate morpheme from *-mIş*, but also against more recent, generative claims of the same nature. For example, Ótott-Kovács (2021) claims that the lower *-mIş* is an evidential marker, while the higher *-mIş* is a separate morpheme, which she calls a "dubitative". While the main difference between the low *-mIş* and the high *-mIş* is not one between evidential and dubitative interpretations, and rather between an aspectual versus an evidential interpretation of *–mIş* in these positions, as I hope to have shown in this paper, my main criticism of Ótott-Kovács (2021) goes beyond this: Clearly, it cannot be the case that at least three, and possibly more than three suffixes have homophones that have different positions and different semantics by coincidence. Rather, different areas of the verbal morphology, reflecting the functional projection architecture of the clause, have different functions; the suffixes that are positioned within those areas have the semantics that correspond to those cartographic areas.

up TAM and have T(ense) and A(spect) together, and M(ood) separate and higher, whereby evidentiality is analyzed as Mood.

When there is only one instance of the combined TAM options, as in a 'simple' verb, and when this is *-mIş*, the account proposes that it will occupy that high M position, and that any T or A features will combine with it, by moving from T/A to the immediately dominating M node, under locality. This results in this single *–mIş* morpheme to have both tense/aspect and (evidential) mood interpretations. When the main verb and its functional features project only up to T/A, as is the case with participles, there is no space for evidentiality, and *-mIş*, which would be housed in the T/A-headed projection, would be able to express *only* the features of tense and aspect; this is why such participles with *-mIş* can only be interpreted as perfectives and not as evidentials.

However, when T/A is the highest head in a participle construction, and when there is a copula or auxiliary that continues the spine of the construction, the M(ood)-head can be housed by the copula, and *-mIş* in that higher position does express evidentiality (but not past tense/perfectivity) for a large majority of speakers, as we have seen.

The idea that a morpheme such as *–mIş* that can express evidentiality in general loses that ability in certain constructions when the syntax of those constructions doesn't project as high as Mood was expressed in Kornfilt (1997) and related work in passing, and it is independently discussed in detail in Korotkova (2021), mainly in the context of embedded clauses, to which the paper turns in the next section, namely to the question of whether clauses marked with *–mIş* can be embedded in Turkish, and still preserve an evidential interpretation.

This paper proposes that in 'complex verbs', the features of the T/A-head of the participial stem cannot raise to the copular M-head, since now, the T/A head and the M-head are not local with respect to each other, given that the M-head is part of a higher, separate (copular) layer in the clausal architecture. The T/A-head is in the lower, lexical (participial) layer, and thus any movement of the T/A features to the M-head in the higher, copular layer is blocked.

The question arises here why the copular layer cannot have its own T/A head, where features such as past tense/perfectivity can be housed.

The answer to this question is that this higher layer *can* indeed have its own T/A head, with its own features; however, that higher layer can either have a T/A-head, or an M-head; this layer is less detailed in its options for functional features and their projections. Thus, the 'regular' past tense morpheme *–DI* can occupy the T/A-head in the copular layer and be interpreted as the past tense, without

having any evidential features,[5] and *–mIş* can occupy the M-head in that higher copular layer, but either the T/A-head or the M-head can host the relevant features; both cannot do so simultaneously, in contrast to the situation with simple 'finite' verbs, where both heads can host the respective features.[6]

3 Can Evidential Clauses be Embedded in Turkish?

3.1 Evidentiality and Clause Size

Korotkova (2021) claims that cross-linguistically, evidential clauses can be embedded only if their syntactic structure has sufficient 'space' for them. In particular, if the clause does not project high enough for Mood to find a place, the clause will not express evidentiality; if, on the other hand, there is a place for Mood, evidentiality can be accommodated. Thus, the main factor of the ability for an embedded clause to host evidentiality and its markers is not semantics, but rather formal factors with respect to the size of a clause, and whether the clause has space to host evidentiality features or not.

This is a claim which is quite similar to what this paper has proposed in the previous section for root clauses and their predicates, when the latter have fully verbal, lexical versus copular predicates. With respect to embedded clauses, the most general embedding pattern in Turkish involves nominalized clauses; one might thus expect that such clauses would not be able to accommodate *–mIş* as a mood marker; this is indeed what Korotkova finds.

5 One could object here that the 'regular past' *–DI* does express evidentiality in the copular layer, and that it expresses a 'confirmative' mood, in contrast with the evidential mood. However, this paper agrees with Comrie (2000) that in Turkish, the 'confirmative' is a *default* interpretation wherever it appears, whether in the lower or higher layer of the clause, while the 'evidential' is marked; in contrast, in other languages with a morphological evidential, such as some Balkan languages, the situation is reversed, i.e. the evidential is default and the 'confirmative' is marked; see the discussion of this point in Comrie (2000).

6 This proposal aligns with ongoing work by Antonio Fábregas and Phoevos Panagiotidis; one of their proposals is that "the granularity of the concept 'encoded' by a feature correlates with the domain it is interpreted in: the higher the domain, the more coarse-grained the concept". (Panagiotidis, personal communication.)

3.2 Nominalized Embedded Clauses

(10) [Beste-nin ağac-ı dik -**tiğ** -in] **-i** duy-du-m.
Beste- GEN tree- ACC plant- INDNOM - POSS3SG - ACC hear- PST -1SG
'I heard that Beste planted the tree.' (Adapted from example 17 in Korotkova 2021.)

-mIş can't be accommodated anywhere in this nominalized embedded clause, i.e. in the nominalized verbal predicate of the clause, as pointed out by Korotkova:

However, as also pointed out by Korotkova, the *-mIş* as a perfective marker *can* show up in a nominalized clause, when it is followed by a copula which bears the nominalization marker; from this point of view, the embedded nominalized clause is like a root clause with a complex verb: the main verb is a perfective participle under an inflected (in this instance, nominalized) copula:

(12) [Beste- **nin** ağac- ı dik – miş ol-**duğ**-un]**-u** duy-du-m.
Beste- GEN tree- ACC plant- mIş be-INDNOM-POSS3SG-ACC hear- PST -1SG
'I heard that Beste has planted the tree.'

Here, *-mIş* delimits a participle (given that it is followed by the copula *ol-*) and therefore has *only* a *perfective* interpretation; just like in a root clause with complex verb morphology, the participle projects only up to T/A and has no space for a mood feature such as evidentiality.

3.3 Non-Nominalized, i.e. Tensed Embedded Clauses

Turkish also has a strategy of embedding tensed clauses. These are more restricted than nominalized embeddings with respect to the matrix verbs that allow them. There are three or four types of those, depending on the analysis:

A. Embedded tensed clauses with a complementizer-like element: *diye*, which is derived from the verb *de* 'say':

(13) [[Beste ağac-ı dik – **miş**] diye] duy-du-m.
Beste tree- ACC plant-**mIş** DIYE hear- PST -1SG
'I heard that Beste planted the tree.' (Similar to example 13 in Korotkova 2021).

B. Embedded tensed clauses without such a 'complementizer', typically taken as the complement of matrix verbs of knowledge:

(14) [Beste ağac-ı dik – **miş**] san-ıyor-um.
Beste tree- ACC plant-**mIş** think- PROG -1SG
'I think/believe that Beste planted the tree.'

C. Embedded tensed clauses with an accusative subject (which has presumably undergone SOR (Subject-to-Object Raising) (= ECM (Exceptional Case Marking)):

(15) [Beste-**yi** ağac-ı dik – **miş**] san-ıyor-um.
Beste- ACC tree- ACC plant-**mIş** think- PROG -1SG
'I think/believe that Beste planted the tree.'

In these constructions, the tensed verb of the embedded clause is typically missing its subject agreement morphology (although many speakers also accept versions with agreement). To see this, we need an example with a non-third-person subject (because the agreement for a third person singular subject in the fully tensed paradigm is null):

(16) [Sen-**i** ağac-ı dik – **miş** (-***sin***)] san-ıyor-um.
you- ACC tree- ACC plant- **mIş** (-2SG) think- PROG -1SG
'I think/believe you to have planted the tree.'

With sensory perception verbs, the construction with accusative subjects and missing subject agreement on the embedded verb is obligatory; i.e. the version with a nominative subject and full agreement is rejected by many or most speakers, and *-mIş* is not possible:

(17) [Sen-*(i) yer-de yat-ıyor(*-sun)/ *yat-mış-sın] gör-dü-m.
you- ACC floor- LOC lie- PROG -2SG / lie-mIş-2SG see- PST -1SG
'I saw you lying on the floor.'

Korotkova (2021) claims that non-nominalized embedded clauses such as those illustrated above, i.e. embedded clauses which have verbs carrying morphological tense as predicates, are able to project to a higher level and thus to host *–mIş* as an evidential marker. In other words, her translations of the tensed embedded clauses in examples similar to (13) through (16) above are different from those given here: they all include expressions of evidentiality, such as 'allegedly'. For me, such readings are ruled out.

Schroeder (2000) addresses similar examples; e.g.

(18) Boyn-un-da koyu leke-ler ol-ma-sa, kitap oku-r-ken
neck-POSS3SG-LOC dark spot-PL be-NEG-COND book read-AOR-while
uyu-ya kal-**mış** zanned-il-ir-di
sleep-DAT remain-**mIş** believe-PASS-AOR-PST
'If it wasn't for the dark spots on her neck, (she) would have been taken to have fallen asleep while reading.' (Schroeder's example 32; with slightly different glosses and translation.)[1]

1 This is an example involving passivization of the matrix clause, with the accusative subject of the embedded clause having been promoted to subject at the matrix level; that derived subject is not overt here, Turkish being a null subject language.

Schroeder reports that what he calls the "resultative meaning", i.e. what this paper has been calling the perfective interpretation, 'prevails' in such *-mIş*-embeddings, although he also says that "with verbs of perception there may also be an inferential nuance added to the resultative meaning". Given that while Schroeder's report supports my translations rather than Korotkova's for tensed embedded clauses as in (13) through (18), the question arises here whether other native speakers of Turkish agree with the interpretation of "evidentiality" in Korotkova (2021) for such examples.

A survey very similar to the first survey reported earlier for 'complex verbs' was conducted, with similar questions testing the participants' interpretations – this time, of the embedded clauses rather than of complex verbs in root clauses, as to whether they included evidentiality. Just as in the first survey, for each construction tested, three examples were given. The result was rather similar, but more heterogenous: Out of the same 22 participants, five did find something like an 'inferential nuance' of the type Schroeder mentions, but only as a weak, secondary meaning, while all of the participants reported perfective interpretations, in accordance with the translations of the examples (13) through (16), all of which have non-nominalized embedded clauses.

We therefore conclude that while size of the clause does matter for the evidentiality interpretation to be possible, it is not the case that the presence of tense is sufficient to ensure that this size is present and available. Transparency of the (embedded) clause, at least in part made possible by lack of agreement, is important, too. Such transparency leads to a union of sorts between the transparent embedded clause and the root clause, resulting in the two predicates forming a verbal compound: In such constructions, the matrix verbs are treated like auxiliaries in a sense, especially where the tensed embedded clause is impoverished by the missing agreement and by the accusative subject. This makes the embedded main verb with

-mIş into a part of a verbal compound,[7] whose head is the inflected matrix verb, thus treating the matrix verb in a similar way as the copula in 'complex verbs'. This is exactly the configuration where *-mIş* is interpreted as a perfective. This makes such constructions that exhibit tensed embedded clauses similar to nominalized clauses, despite the fact that they are tensed.

Informally, this paper proposes that among the non-nominalized embedded clauses, the 'diye'-clauses are most root-like, in that the evidentiality interpretation of *-mIş* is strongest there, and the weakest in the constructions with accusative subjects and lack of subject agreement, which is not surprising, given that these are properties of transparent clauses in general, and most likely to give rise to clause union

How is the perfective reading possible in such examples?

With respect to speakers who report a secondary reading of evidentiality for embedded tensed clauses, as well as with respect to speakers whom Korotkova has consulted and who do apparently report evidentiality as the only reading in embedded tensed clauses, we hypothesize that no clause union of the kind mentioned above takes place, and that such embedded clauses are treated similar to root clauses with respect to evidentiality. In other words, for such speakers and for the evidential reading they report, we hypothesize that there is no shortening of the clausal spine, and that a Mood marker that can host an evidentiality feature is present for such speakers, at least as a secondary option for the speakers that were consulted by me, and as the only reading for Korotkova's consultants.

4 Conclusions

The Turkish suffix *–mIş* is interpreted differently, depending on its position in the spine of a clause: If it is attached to a verbal predicate in a simple root clause, it is interpreted as an evidential as well as a past tense/perfective marker. When it is attached to a participle, it has only the perfective interpretation, while when it is attached to a copula (above either a non-verbal or a participial lexical verbal stem), it has only an evidential interpretation. This suffix has only

7 One diagnostic for the formation of a (verbal) compound is the fact that the non-nominalized predicate of these 'transparent' embedded clauses cannot be separated from the matrix verb. This is a noteworthy fact in a language which is very word-order free; indeed, the individual parts of compounds in Turkish cannot be separated from each other in general. In contrast, the nominalized predicates of nominalized embedded clauses can easily be separated from the matrix verb, via movement, or via insertion of some other matrix constituent. Due to space constraints, I am unable to offer such contrastive examples.

the perfective interpretation in nominalized embedded clauses, while in tensed embedded clauses, while that perfective interpretation is the main one, an evidential interpretation is reported by some speakers as a secondary, weak reading. We mentioned that according to Korotkova 2021, her consultants report an evidential reading for such tensed embeddings as the only interpretation; this may be a generational phenomenon and should be examined with larger groups of native speakers.

All of the facts reported here are covered by analyzing *–mIş* as a *single* morpheme whose interpretations are dictated by its position in the spine of a clause, i.e. whether it is in a lower functional projection or in a higher, copular projection. Thus, the analysis of this suffix proposed in this paper is in accordance with a cartographic approach to the clausal architecture. The size of a clause plays an obvious role in these observations. The traditional description that differentiates between two morphemes, i.e. *–mIş* and *–ImIş*, is rejected, as well as any more recent approaches that claim that the two occurrences of *–mIş* are two different morphemes. Two surveys, conducted to check interpretations of this morpheme in these different positions, support the analyses proposed in this paper.

Abbreviations

1SG = first person singular
2SG = second person singular
ACC = accusative
AOR = aorist
COND = conditional
COP = copula
ECM = exceptional case marking
GEN = genitive
INDNOM = indicative nominalization
LOC = locative
M = mood
NEG = negation
PL = plural
POSS3SG = possessive third person singular
PROG = progressive
PST = past
SOR = subject-to-object raising
T/A = tense/aspect
TAM = tense-aspect-mood

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