

A Morpho-pragmatic Classification of Turkish TAM Markers

Kadri Kuram¹

ORCID: ¹0000-0001-8829-5680

¹Bartın Üniversitesi, Türk Dili ve Edebiyatı Bölümü, Kutlubey Köyü 74100,
Bartın

¹kadrikuram@bartin.edu.tr

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ABSTRACT: This article reviews eight TAM (Tense/Aspect/Mood) markers of Turkish regarding their pragmatic functions. Its main argument is that three aspectuo-temporal situations and nominal predication present an environment where multiple markers compete for expression and that the choice of marker depends on pragmatics. Perfective past viewpoint has four competing markers: *-mİştİl*, *-DI*, *-mİş* and *-mİştİr*. *-mİştİl* and *-DI* contrast in that *-mİştİl* marks shared knowledge while *-DI* marks the speaker's epistemic primacy. *-mİş*, on the other hand, only indicates that the speaker does not hold epistemic primacy. It is void of any assumptions regarding the addressee's epistemic position. *-mİştİr* is the marker of choice if the speaker and the speech community share the knowledge of the past event and impose primacy over the addressee. Such a pragmatic classification allows us to treat the other markers competing for continuous aspect, iterative aspect, and nominal predication. These are *-Ar* and *-yor* with verbal predicates, and *-DIr* and \emptyset with nominal predicates.

Keywords: Turkish evidentiality, epistemic primacy, shared knowledge, intersubjectivity, complex epistemic perspective

Türkçe Görünüş/Kip/Zaman Biçimbirimlerinin Biçim-kullanımsal Sınıflandırması

ÖZ: Bu çalışma Türkçedeki sekiz Görünüş/Kip/Zaman belirleyicisini kullanımbilimsel işlevleri açısından incelemektedir. Çalışmanın temel iddiası üç görünüş-zamansal durumun ve adıl yüklemlemenin birden fazla belirleyicinin mümkün olduğu bir bağlam oluşturduğu ve bu durumlarda seçimin kullanımbilimsel olarak yapıldığıdır. Bitmişlik geçmiş zaman

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durumunun dört belirleyicisi bulunmaktadır. Bunlar *-mİřtl*, *-DI*, *-mİř* ve *-mİřtlr* ekleridir. *-mİřtl* ve *-DI* karřıtlığında *-mİřtl* paylařılan bilgiyi iřaretlerken *-DI* konuřucunun bilgisel önceliđini göstermektedir. *-mİř* ise sadece konuřucunun bilgisel önceliđe sahip olmadıđını göstermektedir. Bu ek dinleyicinin bilgisel konumu ađısından herhangi bir varsayım iřaretlememektedir. *-mİřtlr* ise konuřucunun geđmiř olayla ilgili bilgiyi konuřucu topluluđuyla paylařtıđı ve dinleyici karřısında bu iki katılımcının birlikte bilgisel önceliđe sahip olduđu durumlarda kullanılmaktadır. Bu kullanımsal sınıflandırma ayrıca sürme ve tekrar etme görünüřü ile adcıl yüklemlemede de görülmektedir. Bu durumlarda ekler eylemcil yüklemelerde *-Ar* ve *-yor*, adcıl yüklemelerde ise *-Dir* ve *-∅* ekleridir.

Anahtar Sözcükler: tanıtısallık, bilgisel öncelik, paylařılan bilgi, kiřilerarasılık, karmařık bilgisel perspektif

1 Evidentiality and Epistemic Primacy

Evidentiality is the linguistic expression of how the speaker acquired the information in the sentence, i.e., the speaker's source of information (Aikhenvald, 2003, 2004; Willet, 1998). The speaker may specify their personal experience, or they may be uttering a statement on indirect evidence. Put this way, evidentiality closely interacts with epistemic modality, statement of how the speaker interacts with the information in the sentence. For instance, the speaker's commitment to the truth value of the proposition, an epistemic value, is largely affected by how the speaker accessed the information. Personal experience naturally results in increased commitment. However, epistemicity has another aspect that goes beyond the speaker's commitment and requires more than an assessment of the speaker's singular perspective. It is known as multiple perspectives (Evans, 2005; Bergqvist, 2017) or intersubjectivity (Gipper, 2015). Intersubjectivity concerns the perspectives of the speech participants in various ways, such as deixis, inter-personal relations and epistemicity. Intersubjective epistemicity is the linguistic expression of the way(s) multiple participants are epistemically related to the utterance content. As a result of their relationship with the utterance content, each participant assumes an epistemic status, and they stand in a hierarchical relation. The hierarchy distributes the rights to assess the utterance content. Due to social conventions, a closer social or professional relation to the utterance content is an indicator of a deeper knowledge of it. The participant who has closer social/professional/epistemic relation to the utterance content also has a deeper knowledge of it. They, therefore, stand higher in the hierarchy and hold greater epistemic rights to assess the situation. Natural languages seem to recognize three participants who may have an epistemic relation to the utterance content: the speaker, the addressee and the Speech

Community (SC) (Bergqvist, 2016a-b; Hintz & Hintz, 2017). Speech community can be defined as the adult members of the society who would share the social conventions and the world knowledge that is relevant for the interpretation of the utterance content. Each participant stands in a symmetric or asymmetric position relative to the other participants. That is, a specific participant may be the [K]nower [K+] of a state of affairs while the others are secondary knowers or are ignorant of the fact [K-] (asymmetry), or two or more participants may be the equal knowers (symmetry). Asymmetry results in the discursive phenomenon *epistemic primacy* defined as ‘[...] one’s relative right to tell, inform, assert or assess’ (Stivers et al., 2011, p. 13) or ‘primary right to evaluate the matter assessed’ (Heritage & Raymond, 2005, p. 16). Symmetry, on the other hand, brings about *shared knowledge*. The two phenomena – primacy and shared knowledge – require the speaker’s evaluation of each participant’s perspective as being [K+] or [K-], hence the name multiple perspectives. Note that intersubjective epistemic assessments (symmetry or asymmetry) are relative and dynamic. That is to say, the speaker has to assess the [K] position of each speech participant for each utterance in every speech situation since their relative [K] position may be different when speaking to a different addressee or the addressee’s epistemic relation may change over time, resulting in a different configuration. For example, a professor of general linguistics holds epistemic primacy when speaking to an undergraduate about Turkish word order, assuming that neither is a native speaker of Turkish. However, the same professor will assume an unknowing position when speaking to another professor specializing in Turkish syntax. Similarly, the undergraduate student may become a specialist in Turkish syntax and gain epistemic primacy over his/her professor when uttering a sentence about Turkish syntax.

There may be various forms to mark such phenomena. For instance, the phrase “you have no idea” clearly marks the speaker’s [K+] position and the addressee’s [K-] position (Heritage & Raymond, 2005) while the tag question in “It’s a beautiful day out, isn’t it?” reflects the equal status of the speaker and the addressee (Pomerantz, 1984). Apart from linguistic forms, languages have grammaticalized and semi-grammaticalized means – that is, morphemes and clitics – to mark how participants are epistemically related to an utterance. For example, Jaminjung/Ngaliwuru, an Australian language, has two distinct markers for when the speaker has sole access to information (*ngarndi*) and when the speaker and addressee have joint access (*mindi*) (Schultze-Berndt, 2017). The former results in [sp+, add-] while the latter has the symmetric configuration [sp+, add+]. Note the sentences in (1) and the corresponding translations.

- (1) a. ngarrgina-ni=biya jayiny yirr gan-anthama
 1SG:POSS-ERG=SEQ daughter's.child pull 3SG>3SG-bring.IPFV
 trailer-mij warnda=**ngarndi**
 trailer-with grass=EGO
 'My granddaughter was pulling along grass with a trailer
 (I can tell you since I was there while you were not)'
- b. digirrij=jung ga-rdba-ny=**mind**i/
 die=RESTR 3SG-fall-PST=EGO+TU
 '(The owl frightened the boy), and he fell down as if dead (or so it
 appears – you have access to the same evidence as me, so correct me
 if I am wrong.)'

(Schultze-Berndt, 2017, p. 179)

In addition, the Quechuan varieties South Conchucos Quechua and the Sihuas Quechua have optional markers that mark the [K+] status of the speech community, resulting in the phenomenon known as general knowledge (Hintz & Hintz 2017). Note the examples in (2) and (3). *Mi* in (2) is the marker of the configuration [sp+, add-] while *cha* in (3) indicates that the information is shared between the speaker, the addressee and the speech community. That is, it marks the configuration [sp+, add+, SC+].

- (2) SOUTH CONCHUCOS QUECHUA --- ASSERTION OF
 INDIVIDUAL KNOWLEDGE
 Tsay-pa-**mi** qati-ya-ra-n mama-yki-kuna.
 that-GEN-DIR follow-PL-PST-3 mother-2- PL
 'By that route your ancestors pastured animals (I affirm).'
- (3) SOUTH CONCHUCOS QUECHUA --- ASSERTION OF MUTUAL
 KNOWLEDGE
 Tsay-pa-**cha**: qati-ya-ra-n mama-yki-kuna.
 that-GEN-MUT follow-PL-PST-3 mother-2-PL
 By that route your ancestors pastured animals (as we all know).'
- (Hintz & Hintz, 2017, p. 92)

2 Evidentiality and Intersubjective Epistemicity in Turkish

2.1 Fundamental Assumptions

This article claims to provide a pragmatic account of how Turkish speakers choose a TAM marker (out of the eight covered in this study) in contexts where more than one marker can be used without any change in event semantics. Therefore, it has to make several assumptions regarding the semantics of these markers and remain neutral with respect to their theoretical status. Basically, I will only discuss the choice of marker in contexts where they show identical event semantics in tense, aspect and mood categories. This will allow me to avoid the speculations about how temporality and modality are related to a set of markers in formal syntax or semantics. To be more specific, I will avoid discussing whether Turkish TAM morphology is syncretic (cf. one marker specifies two or three TAM categories in a given context) or analytic (cf. each category has a dedicated marker in a given context and when there are less than three markers, the category(ies) without a marker is/are zero marked by $-\emptyset$). I will also avoid discussing whether tense is grammatically available when I say some markers only show aspectual categories or nominal predication. Finally, I am not debating whether a sentence is grammatically perfective past or present perfect when the event time precedes the speech time and the event is viewed as a completed whole with end points specified. I will simply assume it is perfective past. I refer interested readers to Uzun, 2015; Uzun & Erk Emeksiz, 2011; Erguvanlı-Taylan, 1996; Tosun, 1998 and Kuram, 2015 for the relevant literature. I will also assume that *-Ar* is a two-way polysemic marker while *-yor* is a three-way polysemic marker. They coincide in two semantic situations they can denote: continuous and iterative aspect. *-yor* can be the marker of progressive (4a), continuous (4b) and iterative aspect (4f) while *-Ar* can show continuous (4c) and iterative aspect (4g) with the following definitions of the categories: Progressive aspect is the linguistic representation of a dynamic event without reference to its endpoints while continuous aspect is the representation of a stative event without reference to its endpoints (Smith, 1997, p. 73-84). Iterative aspect, on the other hand, is the repetition of a dynamic event over a period of time, excluding semelfactives (Comrie, 1976, p. 26-28). It follows that *-Ar* and *-yor* compete for the same aspectuo-temporal situation in continuous and iterative aspect.

- (4) a. Ali şu anda yemek yi-yor.
 Ali right now food eat-YOR
 ‘Ali is eating right now.’

- b. Ali annesini çok sev-iyor.
Ali his mother much love-YOR
'Ali loves his mother very much.'
- c. Ali annesini çok sev-er.
Ali his mother much love-AR
'Ali loves his mother very much.'
- d. Ali çok iyi bir öğrenci-Ø.
Ali very good a student
'Ali is a very good student.'
- e. Ali çok iyi bir öğrenci-dir.
Ali very good a student-DIR
'Ali is a very good student.'
- f. Ali ödevini her zaman yap-ıyor.
Ali his.homework always do-YOR
'Ali always does his homework.'
- g. Ali ödevini her zaman yap-ar.
Ali his.homework always do-AR
'Ali always does his homework.'

We will see two more aspectuo-temporal situations in which multiple markers compete for expression: (i) perfective past for which, I argue, four markers (*-DI*, *-miş*, *-miştir* and *-miştir*) compete and (ii) nominal predicates which can be optionally suffixed with the epistemic marker *-Dir*. I assume that *-Dir* is in complementary distribution with a zero marker, resulting in a pragmatic contrast (cf. (4d,e)). I will argue that the choice of marker depends on pragmatic factors in these situations.

All in all, this study concerns four contexts in which more than one TAM marker can express an aspectuo-temporal situation and asks if the epistemic relations of the speech participants can provide insight into how Turkish speakers choose a specific marker in contexts involving competition. It will cover eight TAM markers competing for four aspectuo-temporal situations and argue that they are distributed by five epistemic configurations between the speech participants. The article will proceed by filling in the blanks in table 1 with eight TAM markers. [+] indicates that a participant is the knower of the utterance content while [-] either means the participant is ignorant of the fact or is not the primary knower. Primacy and shared knowledge occur when at least two participants are specified. [K+, K-] results in primacy while [K+, K+] results in shared knowledge. [±] shows that the marker is underspecified for the epistemic status of the participant, hence it can appear in a context that specifies [K+] or [K-] for the participant.

Table 1. Aspectuo-temporal situations and epistemic configurations

	Perfective past	Continuous	Iterative	Nominal
[sp+, add-, SC+]				
[sp+, add-, SC±]				
[sp+, add±, SC±]				
[sp+, add+, SC±]				
[sp±, add±, SC±]				

TAM markers to be distributed: *-DI*, *-mİş*, *-mİşİr*, *-mİştİ*, *-Ar*, *-Dİr*, *-yor*, *-∅*

The article is organized as follows. Since this is a pragmatic study of epistemic hierarchy between speech participants, the organization of §2 will be based on the pragmatic differences of TAM markers rather than their morphological makeup or the semantic clustering of temporal situations. §2.2 concerns knowledge shared between the speaker and the addressee as well as the speaker's epistemic primacy (cf. §1). The corresponding markers are *-mİştİ* and *-DI* in perfective past, respectively. One of the epistemic situations §2.3 documents is the situation where the speaker and the speech community hold primacy over the addressee. This is marked by *-Ar* in continuous and iterative aspect, by *-Dİr* in nominal predication, and by *-mİşİr* in perfective past situations. The other is where the speaker abstains from claiming primacy, which is marked by *-yor* in continuous and iterative aspect, and by *-∅* with nominal predication. §2.4 revisits the speaker's epistemic primacy and compares it to a situation where all [K] features are [±], hence any epistemic configuration is possible, except the speaker's primacy. In total, perfective past has four markers while continuous aspect, iterative aspect and nominal predication have two competing markers each. §3.1 addresses an issue delayed to this point. The article carries out a pragmatic analysis of markers ignoring the fact that two of them are compound markers, namely *-mİştİ* and *-mİşİr*. §3.1 offers an analytical model where TAM markers bear a set of formal pragmatic features appearing analytically in two morphological slots. Finally, §3.2 presents a hierarchy where TAM markers are ordered with respect to their pragmatic force due to various epistemic configurations between the speech participants.

2.2 (Addressee Inclusive) Shared Knowledge and Primacy

In this section, I will argue that the morphemic string *-mİştİ* is a symmetry marker, showing shared knowledge between the speaker and the addressee [sp+, add+] for a past event (Erguvanlı-Taylan, 2000). I will compare the pragmatics of *-mİştİ* to that of the primacy marker *-DI* and argue that they in fact form a contrast in perfective past regarding the distribution of knowledge between the speaker and the addressee.

Perfective past viewpoint in Turkish is usually linked to *-DI* and *-mİř*. Arguably, the difference between these markers lies in evidentiality. According to the well-established literature, *-DI* codes the speaker’s direct experience while *-mİř* has varying semantic connotations from hearsay to mirativity (Aksu-Koç, 1988; Temürcü, 2007 among many others). See (5).¹

- (5) a. Bu araba bozul-du.
 This car break.down-PST.DR
 ‘This car broke down.’ (I was there)
 b. Bu araba bozul-muř.
 This car break.down-PST.INDR
 ‘This car broke down.’ (I wasn’t there)

However, being aspectuo-temporally identical to *-DI* and *-mİř* in (5), *-mİřtİ* shows perfective past, too. Note the identical translations of (6) and (7).

- (6) Geçen gün bir adam gel-di.
 A few days ago a man come-PST.DR
 ‘A man came over a few days ago.’
 (7) Geçen gün bir adam gel-miřti.
 A few days ago a man come-PST.SHK
 ‘A man came over a few days ago.’

Since two forms with identical semantics cannot co-exist, one must have switched to another semantic/pragmatic function. I argue that *-mİřtİ* is a shared knowledge marker in Turkish in the sense stated in §1.² The pragmatic difference

¹ Throughout the article, DR=Direct evidential, INDR=Indirect evidential, PR=Primacy, SHK=Shared Knowledge, PST=Past, GK=General Knowledge, ITE=Iterative, CONT=Continuous, IWK=Inference based on World Knowledge, AUTH=Authority, LP=Lack of Primacy, ASYM=Asymmetry, SYM=Symmetry.

² As noted by a reviewer, *-mİřtİ* is ambiguous between two pragmatic functions. Only one of them is discussed here since only one of them can be given a formal account with morpho-pragmatic features. The other function, I argue, serves as a common ground management tool in the sense detailed by Krifka (2007) and Grzech (2020a,b). In this function, *-mİřtİ* introduces a new (sub-)event into common ground with an intention to develop it further. The content of utterance marked with *-mİřtİ* serves as a presupposition for the following utterance(s). Unlike the function discussed here, *-mİřtİ* marks the speaker’s primacy in this sense, also noted by the reviewer. (i) is reviewer’s example. However, since this article attempts to provide a formal account of the TAM markers in Turkish and common ground management currently lacks a formal treatment, I avoid this function here and resort to simple polysemy for it. See Kuram (accepted) for more on this function.

between a sentence with *-DI* (6) and a sentence with *-miŝti* (7) is that *-DI* is informative to the addressee without involving the addressee in the past event while *-miŝti* is felicitous while referring to an event experienced jointly by the speaker and addressee (Erguvanlı-Taylan, 2000). In other words, *-DI* marks asymmetry (epistemic primacy) with the configuraton [sp+, add-] while *-miŝti* marks symmetry with [sp+, add+]. Note the alternation between *-miŝti* and *-DI* in (8) for the pragmatic purposes of shared knowledge and epistemic primacy, respectively.

- (8) A: Geçen gün bir adam gel-miŝti. Hatırlıyor musun?
 a few days ago a man come-PST.SHK Do you remember?
 ‘A few days ago, a man came over.’
 B: Evet. Őu koltukta otur-muŝtu.
 Yes. that chair sit-PST.SHK
 ‘Yes. He sat on that chair.’
 A: Saatlerce git-me-miŝti de ne oluyor de-miŝti-k.
 hours leave-NEG-PST.SHK so what’s going on say-PST.SHK-1PL
 ‘He wouldn’t leave for hours, and we said (to each other) what’s
 going on’
 B: Sonra da kapıdan çıkarken paspasa takıl-miŝti.
 and then door while.exiting mat trip-PST.SHK
 ‘Then he tripped over the door mat as he was walking out.’
 A: O adam bugün yine gel-di.
 that man today again come-PST.PR
 ‘That man came over again today.’

In (8), A uses *-miŝti* to introduce a past event to the context that A and B experienced jointly. Later, A and B co-construct the parts of the event using *-miŝti* for each sub-event until A utters a sentence containing a piece of information exclusive to A marked with *-DI*, endorsing epistemic primacy about the event. The pragmatic description of the dialogue in (8) distributes the first pair of markers as shown in table 2 below.

(i) Ali beni bu konuda uyar-miŝti. Hiç ihtimal vermediğim için sana bir ŝey de-me-miŝti-m.

Ali me this topic warn-CGM since I saw it highly unlikely you a thing say-NEG-CGM-1SG

‘Ali warned me about this topic. But since I saw it highly unlikely, I didn’t tell you about it.’

Table 2. Added: (addressee inclusive) shared knowledge and primacy in perfective past

	Perfective past	Continuous	Iterative	Nominal
[sp+, add-, SC+]				
[sp+, add-, SC±]	-DI			
[sp+, add±, SC±]				
[sp+, add+, SC±]	-mİřtİ			
[sp±, add±, SC±]				

TAM markers to be distributed: *-mİř*, *-mİřtİr*, *-Ar*, *-Dİr* *-yor*, *-Ø*

2.3 (Addressee Exclusive) Shared Knowledge and Lack of Primacy

In §2.2, I argued that *-DI* marks epistemic primacy (I know, and you don't) in perfective past, contrasting with *-mİřtİ* which marks shared knowledge. I will delay the discussion of the difference between *-mİř* and *-DI* until §3 with further evidence for the primacy marking function of *-DI*. In this section, I will side-step to continuous and iterative aspect along with nominal predication to discuss how four markers are distributed to these contexts by two epistemic configurations. These markers are the Aorist *-Ar* and the epistemic clitic *-Dİr*, contrasting with *-yor* and *-Ø*. There is wide literature in Turkish linguistics regarding the semantic difference between *-Ar* and *-yor* on verbal predicates and *-Dİr* and *-Ø* on nominal predicates (Uzun, 2015; Yavař, 1980, 1982; Uzun & Erk Emeksiz, 2002 and Tura, 1986 among others). This chapter will address the difference between these pairs, arguing that the difference is pragmatic rather than semantic. *-Ar* and *-Dİr* impose a stronger intersubjective asymmetry over the addressee than *-DI* does since they roughly translate to 'We know, and you don't' while *-yor* and *-Ø* mark lack of primacy.

-Ar and *-Dİr* have quite a wide range of functions attributed to them. I will investigate the semantics/pragmatics of these markers in three groups: (i) general/scientific knowledge/fact, characteristic behaviour and categoric reference (Yavař, 1982; Kornfilt, 1997; Tura, 1986; Temürcü, 2007; Göksel & Kerslake, 2005; Özgen, 2021; Erguvanlı-Taylan, 2018; Gül, 2012) (ii) inference based on world knowledge, prediction, indirect evidential and supposition (see Kaya, 2011 for *-Dİr* and Yavař, 1982 for *-Ar*) (iii) authority marking (see Deliktařlı, 2011 for a discussion on *-Dİr* and an example with *-Ar*). (9)-(11) exemplify these groups.

- (9) a. Balina memeli bir hayvan-dır.
Whale mammalian an animal-GK
'A whale is a mammal.'

- b. Kuşlar uç-ar.
Birds fly-ITE.GK
'Birds fly.'

(General knowledge)

- (10) a. Ali ev-de-dir. Bu saatte başka nereye gidecek ki?
Ali home-LOC-IWK Where else would he go at this hour?
'Ali must be at home. Where else would he go at this hour?'

- b. Öğretmen bugün derse geç gel-ir. Arabası bozulmuş.

Teacher today lesson late come-IWK (I heard) his car broke down
'(I reckon) the teacher will be late for class today. (I heard) his car broke down.'

(Prediction, inference, indirect evidential and supposition)

- (11)a. Aile Türk toplumunun temeli-dir.
Family Turkish society foundation-AUTH
'Family is the foundation of the Turkish society'

- b. ve (aile) eşler arasında eşitliğe dayan-ır.
and family spouses between equality depend-AUTH
'And it depends on equality between spouses'

(Deliklitaş, 2011, p. 133)

(Authority; Constitution of the Republic of Turkey, clause 41)

All of these functions attributed to *-Dir* and *-Ar* and their difference with *-Ø* and *-yor* can be given a formal account via an epistemic configuration specified as [K+] or [K-] for each participant. I argue that the modal functions associated with these markers are pragmatic deductions from a formal epistemic configuration of knowledge shared by the speaker and the speech community uttered to an addressee who is ignorant of the fact. (12b) and (13b) are examples of how *-Dir* and *-Ar* are used to state a general fact, one of the aforementioned functions. While *-Dir* and *-Ar* show the primacy of the speaker and the speech community over the addressee, *-Ø* and *-yor* are pragmatically bleached. They are simple statements of an eventuality without any claim of primacy. Therefore, I argue that *-Dir* and *-Ar* mark the configuration [sp+, add-, SC+] while *-Ø* and *-yor* are neutral regarding the epistemic status of the addressee and the speech community, thus [sp+, add±, SC±].

- (12) a. Akrep zehirli bir hayvan-Ø.
Scorpion venomous an animal-LP
'Scorpion is a venomous animal (I am simply reporting a fact).'
- b. Akrep zehirli bir hayvan-dır.
Scorpion venomous an animal-GK
'Scorpion is a venomous animal (you should know this).'
- (13) a. Akrep sokması insanı öldürü-yor.
Scorpion sting human kill-ITE.LP
'Scorpion sting kills humans (I am simply reporting a fact).'
- b. Akrep sokması insanı öldür-ür.
Scorpion sting human kill-ITE.GK
'Scorpion sting is deadly (you should know this).'

Sentences such as (12b) and (13b) are usually uttered to children and to people visiting the countryside. They have a didactic function contrasting with simple statement of a fact in (12a) and (13a), which requires pragmatic support from the speech community. Recall that sentences such as (12b) and (13b) arguably show general knowledge regarding a subject matter. However, the knowledge regarding scorpions is as equally general in (12a) and (13a) without these markers as in (12b) and (13b).³ All sentences in (12) and (13) refer to the entire set of scorpions. Furthermore, there is no way of knowing how a piece of information can be general on its own without the number of its knowers being involved or how, for example, (12a) is different from (12b) with respect to being general. Pragmatics of (12) and (13) suggests that what is generalized is not the knowledge, but the knowers. This can be better understood in a context where the knowledge about the topic of the sentence is a personal discovery (cf. (14)-(15))⁴. In such cases, it is infelicitous to use *-Dir* and *-Ar*.

- (14) a. Herkes sadece siyah akrep zehirli-dir / zehirli-Ø
Everybody only black scorpion venomous-GK venomous-LP
saniyor.
thinks.
'Everybody thinks that only black scorpions are venomous.'
- b. Ama benim arařtırmalarıma göre
However, according to my research
sarı akrep de zehirli bir hayvan-Ø /*hayvan-dır
yellow scorpion also venomous an animal-LP animal-GK
'Yellow scorpions are venomous animals, too.'

³ This is also observed by Kaya (2011) for *-Dir* and *-Ø*.

⁴ A similar effect is observed by Temürcü (2011).

- (15) a. Herkes sadece siyah akrep öldür-ür / öldürü-yor sanıyor.
 Everybody only black scorpion kill-ITE.GK kill-ITE.LP thinks
 ‘Everybody thinks that only black scorpions kill.’
- b. Ama benim araştırmalarıma göre
 However, according to my research
 sarı akrep de öldürü-yor / *öldür-ür
 yellow scorpion also kill-ITE.LP / kill-ITE.GK
 ‘Yellow scorpions kill, too.’

Table 3 shows how these markers should be distributed.

Table 3. Added: (addressee exclusive) shared knowledge and lack of primacy in continuous aspect, iterative aspect, and nominal predication

	Perfective past	Continuous	Iterative	Nominal
[sp+, add-, SC+]		-Ar	-Ar	-Dir
[sp+, add-, SC±]	-Di			
[sp+, add±, SC±]		-yor	-yor	∅
[sp+, add+, SC±]	-mişti			
[sp±, add±, SC±]				

TAM markers to be distributed: *-miş*, *-mişti*

The pragmatic effect of *-Dir* and *-Ar* is also available in perfective past viewpoint with *-mişti*. *-mişti* serves two pragmatic functions: (i) inference from world knowledge (16) and (ii) authority (17). In (i), the speaker highlights the fact that they share the level of world knowledge to make such an inference with many others (except the addressee) while in (ii) the speaker gives the impression that they are speaking on behalf of a community. (16) encompasses the second set of functions associated with *-Dir* and *-Ar*: inference based on world knowledge, prediction, indirect evidential and supposition (as summarized by Kaya, 2011). This is due to the fact that the speaker stresses their position in an epistemic sphere of knowledge where they share the world knowledge or professional expertise with a group of people who would make the same prediction under the same circumstances. This can be seen as a speech-act where the speaker is trying to convince the addressee of the truth of the event. (17) is a canonical example of announcements made by local governments showing authority as Deliklitaş’s (2011) examples do in (11). The announcer or the author of the flier such sentences are written on is a member of the community (local government) revealing a recent development to the public who are unaware of it, indicating the configuration [sp+, add-, SC+].

- (16) Hırsızlar aracı çoktan parçala-mıştır.
 Thieves car already strip-PST.IWK
 ‘The thieves must have already stripped the car.’

- (17) Kasabamıza panayır gel-miřtir.
 To our town fun fair arrive-PST.AUTH
 ‘A fun fair visited our town’

I argue that such functions as inference from world knowledge/prediction and authority associated with *-Dir* ((10)-(11)) and *-miřtir* ((16)-(17)) – as well as general knowledge associated with *-Dir* following a nominal predicate and *-Ar* following a verbal predicate in (9a,b) – are pragmatic deductions from an epistemic configuration where the speaker supports his/her knowledge of the subject matter by highlighting that he/she shares it with the speech community. The specific conditions that contribute to crystallization of any one of the functions associated with these markers seem quite complicated. It could be a sentence-level modifier (Erguvanlı-Taylan, 2018), an epistemic adverb (Kaya, 2011) or the identity of the speaker and context of utterance (Tura, 1986). However, a proper treatment of these conditions is beyond the scope of this article. The main argument here is that they can be deduced from the epistemic configuration where the speaker bases their assessment of the situation on knowledge shared with a community.

So far, we have seen how the three functions attributed to *-Dir*, *-miřtir* and *-Ar* – namely, general knowledge, inference/prediction, and authority – can be uniformly accounted for with the epistemic configuration [sp+, add-, SC+]. Given such a configuration, we expect these markers to behave pragmatically differently in contexts where the addressee is acknowledged as a knower. The data in (18)-(20) indicates that this is true for most speakers of Turkish.⁵ Starting with the compound *-miřtir*, it is infelicitous in sentences that follow such disclaimers as *as you all know* (18a). The addressee inclusive shared knowledge marker *-miřit* is the only option for past events after such a disclaimer (18b).

- (18)a.#Hepinizin bildiđi gibi, geen yıl kasabamıza panayır gel-miřtir.
 As you all know, last year to our town fun fair arrive- PST.AUTH
 ‘As you all know, a fun fair visited our town last year.’

⁵ Unfortunately, the effects aren’t as sharp as grammaticality contrast, nor do they seem to be homogeneous among speakers. As a matter of fact, a reviewer points out that (18a) and (20a) are felicitous for them, noting that *-miřtir* is used for reminding of old information in such contexts. However, my consultants and I find the effect notable, and I assume it as such, leaving the conclusive result to empirical data. I also acknowledge that until the issue is resolved, this particular argument for the configuration of *-Dir* and *-Ar* is the weakest link in this chain. In other words, the status of the addressee may require further discussion with empirical data from a corpus. Another account of the discrepancy could be that it is dialectic.

- b. Hepinizin bildiği gibi, geçen yıl kasabamıza panayır gel-mişti.
 As you all know, last year to our town fun fair arrive-PST.SHK
 ‘As you all know, a fun fair visited our town last year.’

However, (18b) cannot be uttered on a governmental announcement or on an official document since without *-Dir* the utterance loses its authoritarian force. If the speaker – for example, the local government – feels obliged to remind people of their past services and still sound authoritative, the only way to perform such a pragmatic act is to avoid second person, such as (19).

- (19) Bilindiği gibi, geçen yıl kasabamıza panayır gel-miştir.
 As is known, last year to our town fun fair arrive-PST.AUTH
 ‘As is known, a fun fair visited our town last year.’

A direct comparison of (18a) and (19) shows that *-mİştlr* cannot have the addressee in the preceding utterance as a knower. The arguments so far align *-mİştlr* with *-Ar* and *-Dir* in the table.

Table 4. Added: (addressee exclusive) shared knowledge in perfective past

	Perfective past	Continuous	Iterative	Nominal
[sp+, add-, SC+]	<i>-mİştlr</i>	<i>-Ar</i>	<i>-Ar</i>	<i>-Dir</i>
[sp+, add-, SC±]	<i>-DI</i>			
[sp+, add±, SC±]		<i>-yor</i>	<i>-yor</i>	\emptyset
[sp+, add+, SC±]	<i>-mİştI</i>			
[sp±, add±, SC±]				

TAM marker: *-mİş*

The ban on marking the addressee [K+] with *-Dir* and its verbal counterpart *-Ar* is weaker, yet it is still linguistically distinguishable. Mind the data in (20).

- (20) a. #Senin de bildiğin gibi, akrep zehirli bir hayvan-dır.
 As you, too, know, scorpion venomous an animal-GK
 ‘As you, too, know, scorpion is a venomous animal.’
 (you should learn this)
- b. Senin de bildiğin gibi, akrep zehirli bir hayvan-Ø.
 As you, too, know, scorpion venomous an animal-LP
 ‘As you, too, know, scorpion is a venomous animal.’
- c. #Sen de biliyorsun. Bu bölgede ayılar saldır-ma-z.
 You know this, too. In this region bears attack-NEG-ITE.GK
 ‘You know this, too. Bears of this region don’t attack.’
- d. Sen de biliyorsun. Bu bölgede ayılar saldır-mı-yor.
 You know this, too. In this region bears attack-NEG-ITE.LP
 ‘You know this, too. Bears of this region don’t attack.’

- e. Herkesçe bilindiđi gibi, akrep zehirli bir hayvan-dır.
As is known by everyone, scorpion venomous an animal-GK
'As is known by everyone, scorpion is a venomous animal.' (you should learn this)
- f. Herkesçe bilindiđi gibi, bu bölgede ayılar saldır-ma-z.
As is known by everyone, in this region bears attack-NEG-GK
'As is known by everyone, bears of this region don't attack.' (you should learn this)

(20b) is pragmatically more felicitous than (20a) since the pragmatic structure of the second utterance in (20a) has to outscope the contradictory pragmatic structure imposed by the first utterance. To be more specific, the second utterance forces a didactic reading although the addressee is acknowledged to be informed of the topic in the first utterance. The reason for the pragmatic incompatibility is that the featural specification of *-Dir* in the second utterance is [add-] while the first utterance forces the interpretation [add+]. For this reason, (20a) would be the sarcastic form in Turkish. This holds for (20c,d), too. Avoiding second person improves the sentences, as it does with past tense in (19). (20e,f) are far more natural than (20a,c) since the preceding utterances do not include second person. The pragmatically neutral markers \emptyset and *-yor* [sp+, add±, SC±] do not pose any issues with a pragmatically marked utterance, nor do they have sarcastic implications.

2.4 Primacy and a Position even Weaker than (Addressee Inclusive) Shared Knowledge

This section focuses on the contrast between the infamous duality *-mİş* and *-DI*. We see in table 5 that they are both neutral with respect to the Speech Community. Their pragmatic difference is in the configuration of the speaker and the addressee. While *-DI* shows the speaker's primacy, *-mİş* is neutral for the speaker and the addressee. That is, *-mİş* is compatible with contexts where the addressee may hold epistemic primacy. Overall, it is underspecified for all participants, featuring [sp±, add±, SC±]. The asymmetry marker *-DI*, on the other hand, means that the speaker has epistemic primacy, which derives from the configuration [sp+, add-, SC±]. Although a feature-based account is an appealing idea for *-DI* and *-mİş*, it requires specific examples where the difference in use can be seen. Below is one of them. Imagine a scenario where there has been a car crash. Two police officers arrive at the crash scene at the same time. One of them sees the driver slightly before or simultaneously with the other officer and describes what he/she sees to the other officer. Using *-mİş* is the appropriate act

here (21). However, when the officer calls the driver's wife, they would use the primacy marker *-DI* to imply that they have primacy over their addressee to assess the driver's vitality (22). When they go on to discuss the specifics of the crash, however, the police officer retreats to *-mİş* to imply that they are not in command of the details, symmetric epistemic status to the driver's wife.

Table 5. Epistemic configurations of TAM markers in Turkish

	Sp	Add	SC
<i>-DI</i>	+	-	±
<i>-mİş</i>	±	±	±
<i>-mİştİ</i>	+	+	±
<i>-mİştİr</i>	+	-	+
<i>-Dİr</i>	+	-	+
<i>-Ø</i>	+	±	±
<i>-Ar</i>	+	-	+
<i>-yor</i>	+	±	±

(21) Şoför öl-müş.

Driver die-PST.SYM

'The driver is dead.'

(22) A: Ben polis memuru Mehmet Ölmez. Maalesef kocanız

I am police officer Mehmet Ölmez Unfortunately, your husband
bir trafik kazası geçir-di ve öl-dü.

a traffic accident have-PST.ASYM and die-PST.ASYM

'I am police officer Mehmet Ölmez. Unfortunately, your husband
had a car crash and died.'

B: Nasıl ol-muş?

How happen-PST.SYM

'How did it happen?'

A: Aracı uçurumdan yuvarlan-mış.

His vehicle hill roll-PST.SYM

'His car rolled down a hill (apparently).'

Note, however, that *-mİş* is more underspecified than (22) suggests. B's question in (22) marked with *-mİş* *how did it happen?* and the police officer's utterance in (21) directed to the other officer in the event scene assume that neither the addressee nor the speaker is the primary knower. The pragmatic situation is symmetric between the interlocutors in these examples. However, data indicates that *-mİş* can be uttered in contexts where the speaker acknowledges the possibility that the addressee may have epistemic primacy. See (23) where A

utters a *-mİř* sentence to invite B to provide more information. This suggests that *-mİř* is weaker than (addressee inclusive) shared knowledge. It allows for the addressee’s primacy although it does not inherently show it.

- (23) A: Kardeřin evlen-miř.
 Your sister get.married-PST.SYM
 ‘Your sister got married.’
 B: Evet. Geen ay evlen-di.
 Yes. Last month get.married-PST.ASYM
 ‘Yes. She got married last month.’

The pragmatic difference between *-DI* and *-mİř* can be made more explicit through the discussion of an example offered by Aksu-Ko & Slobin (1986), who report an anecdote they experienced during their investigation of the functions of *-mİř* and *-DI* in the 70s. In the political atmosphere of those years, US president Richard Nixon’s resignation was expected for some time while the Turkish prime minister Blent Ecevit was expected to serve until the end of his time in office. However, they both resigned. Aksu-Ko & Slobin (1986) note that although their mode of access was hearsay in both events, they used *-DI* for Nixon’s resignation and *-mİř* for Ecevit’s resignation. Their account of the phenomenon is that *-mİř* in fact marks the speaker’s ‘unprepared mind’ while *-DI* marks ‘prepared mind’. For evidence, they argue that years after Ecevit’s resignation they would prefer *-DI* instead of *-mİř* since a *-mİř* utterance turns into a *-DI* utterance “[...] as the event recedes in time from the moment of speech” and the new information is “assimilated to the [speaker’s] own stock of knowledge” (1986, p. 163). However, we see in (21)-(22) that time is not a necessary condition to shift from *-mİř* to *-DI*; but change of addressee is sufficient to use *-DI*. The time variable Aksu-Ko & Slobin (1986) argue for presumably includes change of addressee as it would be unusual if they broke the news to each other for the second time, which explains why they would use *-DI* years after Ecevit’s resignation: They would be speaking to someone who did not experience the event. In fact, it would be infelicitous for Aksu-Ko and Slobin to use *-DI* when they are speaking to each other since it would imply that the other party has no memory of the event that they jointly experienced. The appropriate marker in such a configuration of speech participants would be the shared knowledge marker *-mİřtİ*. For a similar argument, I was born too late to witness Ecevit’s resignation in 1976, but I was an adult when he was elected as the prime minister for the second time in the 90s. I was involved in the political atmosphere until his second resignation in 2006, which renders me epistemically closer to Ecevit’s political career than my niece, who was born in 2007. Therefore, although I did not witness Ecevit’s first resignation in 1976, it would be pragmatically more appropriate for me to use *-DI*

to refer to the event when I am speaking to my niece. However, I would choose *-mİş* when I am speaking to my mother, who personally experienced the political atmosphere of the time. My choice of marker is grounded on the fact that I am not making any primacy claim and that I acknowledge that she may or may not be better informed about the fact than me. We see once again in the Ecevit example that it is the configuration of the speech participants that determines the choice of marker in Turkish. The data discussed through §2.2- §2.4 shows that the Turkish evidential system is in fact an intersubjective system of (a)symmetry marking between the speaker, the addressee and the speech community regarding their epistemic relation to the utterance content.

Table 6 shows how the markers investigated here are distributed to aspectuo-temporal situations and epistemic configurations with the final marker *-mİş* added.

Table 6. Distribution of the markers across aspectuo-temporal situations and epistemic configurations

	Perfective past	Continuous	Iterative	Nominal
[sp+, add-, SC+]	<i>-mİştİr</i>	<i>-Ar</i>	<i>-Ar</i>	<i>-Dir</i>
[sp+, add-, SC±]	<i>-DI</i>			
[sp+, add±, SC±]		<i>-yor</i>	<i>-yor</i>	\emptyset
[sp+, add+, SC±]	<i>-mİştİ</i>			
[sp±, add±, SC±]	<i>-mİş</i>			

In the columns, we see the markers competing for three aspectuo-temporal situations and nominal predication while the rows show how each marker is configured for the epistemic relation between speech participants. Perfective past can be epistemically configured in four different ways. It only lacks a marker for lack of primacy with [sp+, add±, SC±] that is found in the aspectual situations and nominal predication. Past events in Turkish can be exclusive to the speaker, shared between the speaker and the addressee or shared between the speaker and the speech community. However, a past tense marker places the speaker in a position weaker than lack of primacy and shared knowledge do. *-mİş* is the most underspecified marker regarding intersubjective epistemics, which allows for contexts where the addressee has primacy. The two aspectual categories and nominal predication, on the other hand, have a binary opposition. Primacy over the addressee is not exclusive to the speaker in these contexts; it is shared between the speaker and the speech community. The contrasting position is neither shared knowledge nor the even weaker position. Epistemic primacy of the speaker and the speech community is contrasted to lack of primacy in continuous/iterative events and nominal predication.

3 Morpho-pragmatics of Turkish TAM Markers

3.1 An Analytical Model

Table 5 seems to account for the differential behaviours of Turkish TAM markers. However, *-mİřtIr* and *-mİřtI* are treated as single markers although they are obviously made up of two morphemes. This section will pursue an analytical model where each marker has individual properties, and the compounds are the results of the sum of these properties. If the model proves successful with current discussion and/or future research, it should give us a simpler theory. If it fails, we should go back to the synthetic model in §2. In table 7, *-(I)DI*, *-DIr* and *-∅* appear in a different slot and comply with the below morpho-pragmatic rules.

Table 7. An analytical model for the morpho-pragmatics of Turkish

Slot 1	Sp	Add	SC	Slot 2	Sp	Add	SC
<i>-DI</i>	+	-	±	<i>-(I)DI</i>	+	+	±
<i>-mİř</i>	±	±	±	<i>-DIr</i>	+	-	+
<i>-Ar</i>	+	-	+	<i>-∅</i>	+	±	±
<i>-yor</i>	+	±	±				

-mİř marks all participants [K±]. The participants can be specified in two ways: (i) *-mİř* allows the markers in slot 2 to specify the [K] features of speech participants, only disallowing the configuration [sp+, add-, SC±] which is reserved for *-DI*. (ii) They may be specified in context or by other means (see Erguvanlı-Taylan, 2018; Kaya, 2011 and Tura, 1986). That is, the utterance is configured as [sp-, add-, SC±] in (24) where neither officer is the primary knower when they arrive at the crash scene while the configuration must be [sp-, add+, SC±] in (25) where the speaker assumes the addressee's primacy as the matter concerns the addressee's sister.

(24) Şoför öl-müş.

Driver die-PST.[sp-, add-, SC±]

'The driver is dead.'

(25) A: Kardeşin evlen-miş.

Your sister get.married-PST.[sp-, add+, SC±]

'Your sister got married.'

- B: Evet. Geçen ay evlen-di.
 Yes. Last month get.married-PST.[sp+, add-, SC±]
 Yes. She got married last month.'

As for morphological marking via a slot 2 marker, there seem to be three rules applying to the combinations in table 7: (i) For a slot 2 marker to follow a slot 1 marker and specify a participant's [K] feature, the feature must be [±] in slot 1 and the marked features, if any, must match in value. Also, the resulting configuration should not be banned by either marker. (ii) Vacuous marking is banned. A slot 2 marker cannot follow a slot 1 marker if they have the same values for all participants. This pre-empts the ungrammatical combination *-*Ar-DIR*. (iii) Table 7 only applies to pragmatically coloured combinations. For example, *-Ar-(I)DI*, *-DI-(I)DI*, and *-yor-(I)DI* are possible combinations in Turkish. Yet *-(I)DI* only refers to past tense in these combinations.

Given the rules above, if a verb is suffixed with *-miş*, further suffixation with *-(I)DI* results in the configuration [sp+, add+, SC±] (shared knowledge in (26) below) while *-DIr* results in [sp+, add-, SC+] (27). This is not banned by *-miş* as it only bans [sp+, add-, SC±]. Looking at the data in (24)-(27), one can say that *-miş* is what is not *-DI* as it allows any configuration to be specified in the context of the utterance or by a slot 2 marker except the configuration of *-DI*.

- (26) Geçen gün bir adam gel-miş-ti.
 a few days ago a man come-[sp±,add±,SC±]-[sp+,add+,SC±].
 Hatırlıyor musun?
 Do you remember?
 (27) Kasabamıza panayır gel-miş-tir.
 To our town fun fair arrive-[sp±,add±,SC±]-[sp+,add-,SC+]
 'A fun fair visited our town.'

Furthermore, *-DIr* can co-occur with *-yor* (cf. (28)), which is neutral regarding the [K] features of the addressee and the speech community [sp+, add±, SC±]. When *-DIr* is suffixed after *-yor*, the resulting structure is the same as *-miştir*, only in iterative aspect due to *-yor* [sp+, add- SC+].

- (28) Hırsızlar için bu iş çok kolay.
 It's an easy task for thieves.
 Onlar günde iki tane araba parçalı-yor-dur.
 They daily two car strip-[sp+, add±, SC±]-[sp+, add-, SC+].
 'It's an easy task for thieves. I am sure they strip (at least) two cars a day.'

When *-Dir* is the sole TAM marker, it is in contrast with $-\emptyset$ with respect to its specification of the addressee and the speech community (cf. (29) and table 7). While *-Dir* has the specification [sp+, add-, SC+], $-\emptyset$ is specified as [sp+, add±, SC±]. Therefore, $-\emptyset$ is the simple statement of a predication without any claim of primacy since primacy is relative and $-\emptyset$ is unmarked for the epistemic position of the addressee. Primacy cannot hold if only one participant is marked. *-Dir* highlights the asymmetry between the speaker and the addressee further backed by the speech community, hence the pragmatic function of authority, book-writing discourse, and encyclopaedic knowledge etc. (see §2.3). It is comparable to, yet stronger than *-DI* since it is [SC+].

- (29)a. Akrep zehirli bir hayvan- \emptyset .
 Scorpion venomous an animal-[sp+, add±, SC±]
 ‘Scorpion is a venomous animal (I am simply reporting a fact).’
 b. Akrep zehirli bir hayvan-dır.
 Scorpion venomous an animal-[sp+, add-, SC+]
 ‘Scorpion is a venomous animal (you should know this).’

Finally, *-Ar* and *-yor* contrast the same way as $-\emptyset$ and *-Dir* do. *-Ar* signals the primacy of the speaker and the speech community in verbal predicates via [sp+, add-, SC+] while *-Dir* serves the same function in nominal predicates. On the other hand, $-\emptyset$ and *-yor* are neutral with respect to the addressee and the speech community [sp+, add±, SC±]. Hence, they do not impose primacy. These two sets – [*-Dir*, $-\emptyset$] and [*-Ar*, *-yor*] – are the mirror images of each other in verbal and nominal predicates (Tura 1986). Compare the featural specifications in (29) and (30).

- (30)a. Akrep sokması insanı öldür-yor.
 Scorpion sting human kill-[sp+, add±, SC±]
 ‘Scorpion stings kill humans.’
 b. Akrep sokması insanı öldür-ür.
 Scorpion sting human kill-[sp+, add-, SC+]
 ‘Scorpion stings are deadly.’

3.2 Morpho-Pragmatic Hierarchy of Turkish

Based on the observations so far, I offer the morpho-pragmatic hierarchy of epistemic primacy in Turkish, which is defined by the grounding of speech participants.

(31) Morpho-pragmatic hierarchy of epistemic primacy in Turkish

-mİştlr/-Dir/-Ar > *-DI* > *-yor/-Ø* > *-mİştl* > *-mİş*
 [sp+, add-, SC+] > [sp+, add-, SC±] > [sp+, add±, SC±] > [sp+, add+, SC±] > [sp±, add±, SC±]

-mİştlr, *-Dir* and *-Ar* are the most authoritative markers since the speaker shares the knowledge with the speech community in an asymmetric position to the addressee. They are specified as [sp+, add-, SC+]. *-DI* is second to *-mİştlr*, *-Dir* and *-Ar* since despite the persisting hierarchy between the speaker and the addressee, the speaker may or may not be accompanied by the speech community in their asymmetric position to the addressee [sp+, add-, SC±]. If the hierarchy is to be split into two in terms of the greatest gap in primacy, the difference between *-DI* and *-yor/-Ø* is the greatest gap. The addressee now has a chance to be in a symmetric position with the speaker and the speech community and challenge the speaker's knowledge. *-yor* and *-Ø* are not [add-], they are [add±]. Next in the hierarchy is *-mİştl*. A *-mİştl* marked sentence promotes the addressee from [K±] to [K+], in an epistemic sphere of shared knowledge. The addressee is now definitely equal to the speaker, unlike the possibly equal in *-yor* and *-Ø*. However, *-mİş* presents the weakest position for the speaker. Since it marks the speaker as well as the addressee as [K±], it is now possible in the right context that the addressee holds epistemic primacy (see (25)).

4 Conclusion and Discussion

This article described the pragmatics of eight TAM markers in Turkish that compete for the expression of three aspectuo-temporal situations and nominal predication. It argued that when an aspectuo-temporal situation can be expressed by more than one marker, the choice depends on intersubjective epistemicity which reflects the ways speech participants are related to the utterance content. Specifically, four markers (*-DI*, *-mİş*, *-mİştl* and *-mİştlr*) compete to show perfective past viewpoint. *-DI* marks asymmetry where the speaker has primacy over the addressee while *-mİş* is quite underspecified regarding the distribution of knowledge among speech participants. One way of defining *-mİş* could be that *-mİş* is anything that is not *-DI* since it allows for almost any configuration except what is marked by *-DI*. Turkish also has a shared knowledge marker in perfective past. *-mİştl* marks the events that were experienced jointly by the speaker and the addressee. *-mİştlr* is the marker of choice when the speaker and the speech community jointly hold epistemic primacy over the addressee (shared knowledge excluding the addressee). Primacy of the speaker and the speech community is also available in continuous aspect, iterative aspect, and nominal predication. *-Ar* and *-yor* can show continuous and iterative aspect, which results in a competition

in both cases. Again, the choice is pragmatic in both cases. *-Ar* marks the epistemic primacy of the speaker and the speech community while *-yor* indicates that the speaker is simply stating a fact without asserting primacy. The same pragmatic contrast is observed in nominal predication. *-Dir* and \emptyset compete for nominal predication. *-Dir* aligns with *-Ar* and *-mİřtIr*, showing knowledge shared by the speaker and the speech community. \emptyset is the nominal counterpart of *-yor* and it is chosen when the speaker is simply stating a fact without asserting primacy. The overall picture resulting from this analysis points to a hierarchy of these markers that shows the pragmatic force of each one with respect to epistemic primacy.

Since this is an early and partial treatment of TAM morphology in Turkish with formal pragmatic features in mind, the arguments here call for deeper analysis and more importantly empirical evidence. I provide such evidence in Kuram (accepted), yet for an even smaller portion of TAM markers – namely *-DI*, *-mİř* and *-mİřtI* – and with a non-formal description of primacy and shared knowledge. Furthermore, this article lacks a statistical analysis of how utterances bearing these markers interact with contexts that show the distribution of knowledge among speech participants as exclusive or shared. However, any formal pragmatic analysis that is based on feature specification can be and should be supported by corpus data. For example, if *-Dir* and *-Ar* are specified as [sp+, add-, SC+] while \emptyset and *-yor* are specified as [sp+, add±, SC±], there should be a statistically meaningful difference between their co-occurrence with such statements as *everybody knows this* as well as in their occurrence in speech environments where epistemic asymmetry is expected between the speaker and the addressee. Another path to follow is based on the hierarchy in (31). If the arguments here are sound and the hierarchy holds, the theory predicts that utterances with markers higher in the hierarchy should incur an epistemic challenge by the addressee less frequently than the utterances bearing markers lower in the hierarchy do. Each aspectuo-temporal situation and nominal predication have markers in epistemic ranks that are far enough from each other in (31) to be tested empirically through corpus data. For an obvious example, perfective past has competing markers on the two far ends of the hierarchy. This should appear as a notable difference in the frequency of epistemic challenges each marker incurs. I leave such issues to future work.

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