# Nesir

# The Enigma of The Turkish Morpheme –(y)AcAk: A Disquisition on Tense-Aspect-Modality Interpretations

## Türkçede –(y)AcAk Muamması: Zaman-Görünüş-Kiplik Yorumlamaları Üzerine Bir Tahkik

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## Abstract

This paper investigates how future temporal reference is established in the presence of the Turkish morpheme –(y)AcAk, a widely debated element in the linguistic literature that is traditionally labeled as a future tense marker. Existing analyses, while significantly contributing to our understanding, do not fully encapsulate the entirety of the observed distributional and interpretational properties of this morpheme. In the ensuing pages, a critical examination of the preceding accounts will be undertaken, traversing the realms of tense, aspect, modality, and multifunctionality; and present the challenges associated with these analyses. While it does not venture to propose a new interpretative framework for the enigmatic –(y)AcAk, it suggests that the modality-based account of Rivero aligns more closely with the observed complexities of this morpheme, according to our analysis. This paper underlines the need for further research to enhance our understanding of –(y)AcAk within Turkish grammar. Through an in-depth interaction analysis of –(y)AcAk with other linguistic phenomena and morphosyntactic comparisons with related languages, future research holds the potential to illuminate this morpheme's intricate nature, thereby enriching the broader theoretical landscape of tense, aspect, and modality studies.

## Öz

Bu makale, Türkçede yaygın olarak tartışılan bir dilbilim unsuru olan ve geleneksel olarak gelecek zaman işaretleyicisi olarak kabul gören –(y)AcAk biçimbirimi ile gelecek zaman gönderiminin nasıl tesis edildiğini araştırmaktadır. Mevcut tahliller, bulundukları kıymetli katkılara rağmen mezkûr biçimbirimin gözlemlenen dağılım ve yorumlanma özelliklerinin tamamını ihata etmekten uzaktır. Müteakip sayfalarda, önceki izahların eleştirel bir tetkikine girişilecek, zaman, görünüş, kiplik ve çok işlevlilik temelli izahlar üzerinde durulacak ve bu minvaldeki tetkiklere dair sorunlar ve açmazlar sunulacaktır. –(y)AcAk'ın esrarengiz doğasına yeni bir açıklama getirmek bu makalenin takati dahilinde olmasa da sunulan tetkik, Rivero'nun kiplik temelli yaklaşımının ekin gözlemlenen karmaşık doğasına en iyi açıklamayı getirdiği yönündedir. Mevcut alanyazının intizamlı bir değerlendirmeye tabi tutulması ile bu alanda daha fazla araştırma yapılması gerekliliği vurgulanmaktadır. Nihai amaç, –(y)AcAk'ın Türkçe dilbilgisindeki yerine dair daha kuşatıcı bir kavrayış geliştirmeye yönelik bilgi birikimini artırmaktır. Müstakbel çalışmalar, –(y)AcAk'ın diğer dilbilimsel olgularla etkileşimini incelemek ve ilişkili dillerle derinlemesine morfosentaktik mukayeseler sunmak suretiyle bu biçimbirimin içinden çıkılmaz doğasına ışık tutabilir ve zaman, görünüş ve kiplik araştırmalarının geniş kuramsal çerçevesine katkıda bulunabilir.

# Introduction

Language is an intricate system marked by a high degree of variability and complexity. Turkish, with its rich morphology and intriguing morphosyntactic characteristics, offers a compelling case study for understanding this complexity.[1] A particular point of interest is the Turkish morpheme –*(y)AcAk*, which poses a significant challenge to both language learners and linguists alike. Although a seemingly ordinary future tense marker at first glance, a deeper investigation reveals that the functions and uses of –*(y)AcAk* extend far beyond this simple characterization, leading to a multitude of questions and hypotheses that remain largely unexplored.

It has long been noticed that, from a diachronic perspective, morphological markers of future time reference grammaticalize from expressions of modality such as obligation, desire, intention, and so forth, in striking contrast with markers of present and past reference. Based on a study of crosslinguistic verbal morphology, Bybee arrives at the conclusion that future inflection operates independently from present and past inflection: whether a language marks future tense overtly cannot be judged by whether it has morphological distinction between present and past. This observation leads Bybee to infer that "the future does not belong in the same grammatical category as the present and past."[2] As a result, he posits, it is natural that languages that mark future do so quite differently from the way they mark present and past.

The contrast between future on the one hand and present/past on the other has several morphosyntactic reflexes. First, many languages, including those that have morphological present/past markers, mark future periphrastically.[3] Second, many languages employ present tense forms to establish future reference. Third, constructions involving future markers tend to have modal interpretations as well, as is the case in German.

(1)     Hans wird schlafen.          (German)
        Hans FUT sleep
        i. 'Hans will sleep (sometime in the future).'
        ii. 'It is likely that Hans is sleeping now.'[4]

Bybee further notes, consistent with the above facts, that future may not be marked in the same affix position as present and past. Thus, although the future affix in Basque and Georgian occupy the same slot as present and past, it occupies a different slot in languages like Kiwai and

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[1]  Tacettin Turgay, "Classifier Constructions of Turkish" (PhD diss., Boğaziçi University, 2020), 283-289; Halil İ. İskender, "Türkçede Üçüncü Çoğul Şahıs İyelik Ekinin Biçimbilimsel Gösterimi," in *KLU TDE Bölümü 2009'dan 2019'a 10. Yıl Hatıra Kitabı* (İstanbul: Akademik Kitaplar, 2019), 215-217.

[2]  Joan L. Bybee, *Morphology: A Study of the Relationship between Meaning and Form* (Amsterdam: John Benjamins, 1985), 157.

[3]  Östen Dahl, *Tense and Aspect Systems* (Oxford: Blackwell, 1985), 189.

[4]  From Wolfgang Klein, "How Time is Encoded," in *The Expression of Time*, eds. W. Klein, and P. Li (Berlin: Mouton de Gruyter, 2009), 45.

Sierra Miwok. Put briefly, morphosyntactic expression of future differs in a number of ways from that of present and past. As such, the morphosyntactic and semantic status of future tense is significant on conceptual as well as theoretical grounds.[5]

Given the issues surrounding future markers, it comes as no surprise that the literature on Turkish so-called future tense marker *–(y)AcAk* is wide and varied, with a number of diverse proposals regarding its exact characterization. This paper embarks on a critical examination of the existing corpus of literature on the Turkish morpheme *–(y)AcAk*. The focus will be on spotlighting the inherent challenges and limitations of the existing analyses of *–(y)AcAk*, with particular focus on the limitations of each approach. A comprehensive evaluation of existing literature will be provided, underscoring theoretical and empirical inconsistencies and gaps. This examination aims to enrich the ongoing discourse on the function of *–(y)AcAk* and to highlight the requirement for further research and the formulation of new proposals to address the issues identified.

The structure of the paper is as follows: Section 1 gives an overview of the multifaceted embodiment of futurity in human languages, the typology of future expressions across languages, the expression of future tense in verbal and nominal domains, and the challenges encountered in future tense analysis. Section 2 traces the evolution of understanding surrounding the *–(y)AcAk* morpheme from Meninski's era to today. Section 3 navigates through the challenges faced in existing analyses with an emphasis on applying a future, an aspect and a multifunctional framework; while Section 4 outlines Rivero's near-perfect modal analysis. Finally, concluding remarks in Section 5 will bring the paper to a close, summarizing the principal findings of our critical analysis and emphasizing the need for more extensive research on this topic.

## The Multifaceted Embodiment of Futurity in Human Languages

The role of future tense in linguistic systems is fundamental, facilitating the articulation of actions or events projected into the unactualized temporal sphere. The universality of this feature in human language belies a strikingly complex variation in its manifestation across diverse languages. This discourse intends to elucidate the panoply of approaches adopted by different linguistic systems in the conceptualization and expression of future tense.

### A Typology of Future Expressions Across Languages

Language systems exhibit remarkable diversity in the strategies employed for marking future tense.[6] These can be broadly classified into three primary categories: grammatical, lexical, and

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[5]     Bybee, *Morphology*, 158-159.
[6]     Dahl, *Tense and Aspect Systems*, 104-106.

contextual. This discussion will delve into examples of each strategy, underscoring the variety of linguistic devices harnessed to express future occurrences.

(i) Grammatical strategies utilize specific constructions, encompassing inflectional morphology, periphrastic formulations, and auxiliary verbs. The English language, for instance, expresses future tense via the auxiliary verb "will," coupled with the base form of a verb.[7]

(ii) Lexical strategies hinge on the usage of specific words or phrases for conveying future tense, which may include adverbs, time phrases, and modal verbs. For example, Mandarin Chinese incorporates time phrases, such as *míngtiān* "tomorrow," to indicate future occurrences.[8]

(iii) Contextual strategies rely on interpreting the surrounding linguistic elements to ascertain future tense. These might encompass aspectual markers, pragmatic cues, or temporal deixis. To illustrate, Russian often uses two distinct approaches to express future tense. For imperfective verbs, which denote ongoing, habitual, or incomplete actions, the future tense is expressed by using the present tense of the auxiliary verb *byt* "to be" followed by the infinitive form of the main verb. Conversely, perfective verbs, signifying actions that will be completed in the future, form the future tense by simply employing their present tense form.[9]

These three distinct strategies –grammatical, lexical, and contextual– exemplify the extensive diversity and adaptability of languages in expressing future events.[10] They showcase the range of methods that different languages employ to articulate the same temporal concept. However, beyond these tactical differences, languages can also be classified based on broader structural principles related to their representation of future tense. We can consider two additional categorization parameters that speak to these structural variations:

(i) Morphological Structure: This parameter pertains to the way a language uses its morphological resources to express the future tense. In this respect, languages can be either synthetic or analytic. Synthetic languages employ synthetic forms. Latin for instance, employs both synthetic (through verb inflection) and analytic (periphrastic) forms to indicate the future tense.[11] Conversely, as mentioned above, analytic languages like English rely on auxiliary verbs or similar constructions to express futurity.

(ii) Dependence on Tense or Aspect Markers: This parameter reflects how a language marks the future tense, determining whether it relies on explicit tense markers or uses aspect markers in combination with context. Tense-based systems, such as those found in French use explicit

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[7]     Rodney Huddleston and Geoffrey K. Pullum, *The Cambridge Grammar of the English Language* (Cambridge: Cambridge University Press, 2002), 117.

[8]     Yip Po-Ching and Don Rimmington, *Chinese: An Essential Grammar* (London: Routledge, 2021), 58.

[9]     James Forsyth, *A Grammar of Aspect: Usage and Meaning in the Russian Verb* (Cambridge University Press, 1970), 119-122

[10]    Dahl, *Tense and Aspect Systems*, 33-34.

[11]    Harm Pinkster, "The Development of Future Tense Auxiliaries in Latin," *Glotta* 63 (1985): 225-227.

markers to indicate the future tense.[12] Conversely, aspect-based systems, exemplified by Mandarin Chinese, utilize aspect markers –which indicate how an action, event, or state relates to the flow of time– and frequently rely on contextual cues to convey a future sense.[13]

As a third axis of consideration, it is apposite to explore the complex interrelationship between future tense and the dichotomy of realis and irrealis moods. This serves as an additional lens that complements the two preceding classifications discussed, and roughly mirrors the indicative and subjunctive mood bifurcation common to many European languages. Despite the absence of an overarching scholarly consensus, the prevailing theoretical framework demarcates the ensuing categorial delineations: The realis modality portrays events as either actualized or in the process of actualization, rendering them amenable to empirical substantiation. Conversely, the irrealis modality confines these events within the purview of abstract mentation, rendering them accessible exclusively through the agency of imaginative extrapolation.[14]

To distill this complexity into foundational terms, the realis mood qualifies events as "actualized," whereas the irrealis mood denotes them as "non-actualized." A key implication arises from the temporal characterization of future events: given that the future constitutes an untraversed temporal dimension, it inherently aligns with the irrealis mood. Empirical data garnered from linguistically diverse contexts, such as Nanti, lend credence to this conceptual affinity.[15] In such linguistic systems, future-oriented events frequently receive irrealis mood marking, concomitant with other modal expressions including negatives, hypothetical constructs (e.g., conditionals and counterfactuals), imperatives, and obligatives. This congruence is in alignment with Bybee's thesis positing discernible disparities between future and non-future temporal schemata.[16] Accordingly, linguistic expressions pertaining to future temporality ought to be interpreted as modally inflected constructs, rather than mere tense-specific articulations, an interpretation that resonates with the theoretical postulations of Comrie, Lyons, and Palmer.[17] The subsequent subsection will introduce yet another facet of this intricate phenomenon.

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[12]     Margaret Lang and Isabelle Perez, *Modern French Grammar: A Practical Guide* (London: Routledge, 2004), 93-95.

[13]     Po-Ching and Rimmington, *Chinese: An Essential Grammar*, 113, 146.

[14]     Marianne Mithun, *The Languages of Native North America* (Cambridge: Cambridge University Press, 2001), 173.

[15]     Lev Michael, "The Nanti Reality Status System: Implications for the Typological Validity of the Realis/Irrealis Contrast," *Linguistic Typology* 18, no. 2 (2014).

[16]     Bybee, *Morphology*.

[17]     Bernard Comrie, *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems* (Cambridge: Cambridge University Press, 1976); John Lyons, *Semantics: Volume 2* (Cambridge: Cambridge University Press, 1977); Frank Robert Palmer, *Mood and Modality* (Cambridge: Cambridge University Press, 2001).

## The Expression of Future Tense in Verbal and Nominal Domains

Language is fundamentally partitioned into two key domains: the "verbal domain" and the "nominal domain." The verbal domain comprises verbs and their associated morphological components, such as tense, aspect, mood, and voice, which primarily serve to express actions, events, or states. On the contrary, the nominal domain includes nouns, supplemented by morphological markers of features like number, case, and gender, which typically denote concrete or abstract entities or concepts.[18]

Examining how future tense unfolds in these domains requires an exploration of morphological strategies utilized by languages to signify future-oriented references in the context of both verbs and nouns. Within the verbal domain, future tense is predominantly used to express actions or events oriented towards the future, and is articulated using mechanisms such as inflectional morphology, auxiliary verbs, or periphrastic constructions.[19] For instance, French utilizes periphrastic constructions (the "aller + infinitive" structure) to denote futurity, exemplifying the variety of mechanisms languages employ to express future tense.[20]

Within the nominal domain, on the other hand, the expression of future reference may transpire through morphological alterations to nouns or noun phrases that suggest a future timeframe, or via the inclusion of future-oriented modifiers. Significantly, the linguistic process known as nominalization –the conversion of a verb into a noun or noun-like form by applying particular morphemes– serves to articulate future events or states, a process exemplified by the Turkish *yap-acağ-ın* do-FUT-1SG "that you are going to do."[21]

In essence, the manifestation of future tense within both verbal and nominal domains is contingent upon an array of morphological mechanisms which contribute to the intricate tapestry of linguistic strategies employed to signify futurity. The exploration and analysis of these practices not only augments our understanding of the multifaceted morphological approaches utilized in the conveyance of future tense but also underscores the inherent richness and complexity characteristic of human languages.

## Challenges Encountered in Future Tense Analysis

The cross-linguistic analysis of future tense presents several complexities, ranging from ambiguities between future tense and other functional categories, to the crucial role of context in decoding future tense, and the difficulties inherent in comparing and categorizing languages with

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[18]    Bernard Comrie and Sandra A. Thompson, "Lexical Nominalization," in *Language Typology and Syntactic Description, Vol. III: Grammatical Categories and the Lexicon*, ed. Timothy Shopen (Cambridge: Cambridge University Press, 2007), 353-355.

[19]    Comrie and Thompson, "Lexical Nominalization," 344-346.

[20]    Lang and Perez, *Modern French Grammar*, 201.

[21]    Comrie and Thompson, "Lexical Nominalization," 347.

differing future tense systems. In the domain of temporal semantics, expressions of future tense inherently occupy a zone of epistemic indeterminacy. These expressions denote events that have not yet materialized, and their eventual actualization remains contingent upon various factors, thus rendering them fundamentally uncertain. Consequently, there is a morphosyntactic gravitation towards the modal domain to encapsulate this inherent uncertainty. The confluence of future tense and other functions, such as modality, can create ambiguities that confound the clear delineation of a morpheme's or construction's role in conveying futurity. With the uncertain interplay of the future tense and other grammatical categories, one may easily lose sight of the proper analysis of future reference.[22]

Shadows cast by context –those subtle cues of aspect, pragmatics, and surrounding discourse– whisper ambiguities that muddle our comprehension of future events. These whispers echo across languages, each unique in its inflections, ensnaring the unwary researcher in a labyrinth of cross-linguistic comparisons. Intricacies intensify as we penetrate further into this labyrinth, encountering the duality of finite and non-finite contexts, elements that amplify the already enigmatic task of future tense analysis. Unraveling this Gordian knot is no trivial matter. At every turn, we are reminded of the inherent complexities, like a specter haunting our linguistic expedition. Our journey into the realm of future reference is further tested by the multifunctional nature of morphemes that mark future reference, as evident from their diachronic evolution.[23] Yet it is this very challenge that illuminates the path to understanding.


## The Evolution of Understanding: The *–(y)AcAk* Morpheme from Meninski to Today


Meninski's seminal work, "Grammatica Turcica" (1680), marks the genesis of the scholarly exploration of *–(y)AcAk* as a marker of future tense in Turkish.[24] His analysis, marking the first recorded exploration of this morpheme, has undeniably been instrumental in guiding subsequent research on Turkish grammar.[25] It significantly enriched our comprehension of the language's tense system and initiated a wave of linguistic inquiries that followed.

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[22]    Wolfgang Klein, *Time in Language* (London: Routledge, 1994), 114-118.

[23]    From a diachronic perspective, many languages that currently feature a distinct future tense did not historically possess this tense category. See Hans Reichenbach, "The Tenses of Verbs," in *The Language of Time: A Reader*, eds. Inderjeet Mani, James Pustejovsky, and Robert Gaizauskas (Oxford: Oxford University Press, 2005), 78.

[24]    Franciscus à Mesgnien Meninski, *Grammatica Turcica* (Vienna: Selbstverl, 1680), 68.

[25]    Interestingly, while instances of the use of *–(y)AcAk* are found in Turkish texts predating the 17th century as identified in Faruk Kadri Timurtaş, "Eski Anadolu Türkçesi," in *Türk Dünyası El Kitabı II: Dil-Kültür-Sanat* (Ankara: Türk Kültürünü Araştırma Enstitüsü Yayınları, 1992), 135, it is conspicuously absent from earlier grammatical works, such as the pioneering *Müyessiretü'l-ulûm* by Bergamalı Kadri from the early 16th century, which does not incorporate this morpheme into its analyses. This omission underscores not only the innovative quality of Meninski's work but also suggests that the morpheme may not have been originally

The examination of –*(y)AcAk* witnessed a period of comparative quietude subsequent to Meninski's work, with a dearth of notable enhancements to his initial insights. Before the resurgence of interest over the last hundred years, some noted scholars, including Davids, Ahmed Cevdet, and Németh, endeavored to elucidate the complex nature of –*(y)AcAk*, probing the multifaceted nature of –*(y)AcAk*.[26] Nonetheless, the 20th century marked a resurgence of scholarly interest in delineating the morphological structure and diachronic roots of –*(y)AcAk*, exemplified by Bang's 1918 hypothesis.[27] Yet it was Jean Deny's 1921 work, "Grammaire de la langue turque," that ushered in a new epoch in the exploration of this morpheme. Deny undertook a more thorough examination of the morpheme using synchronic data, thereby expanding upon and refining Meninski's initial observations, which set a new benchmark in the understanding of this grammatical element.[28]

In the years following Deny's work, a veritable constellation of esteemed grammarians, including but not limited to Banguoğlu, Ergin, Gencan, Lewis, Underhill, Kornfilt, Ersen-Rasch, Korkmaz, Göksel and Kerslake, and van Schaaik have endeavored to elucidate the complex nature of –*(y)AcAk*, making invaluable contributions to the ongoing discourse surrounding this issue.[29] It is important to emphasize, however, that the primary focus of the majority of these scholars lies within the realm of verbal domains. While the majority have acknowledged the likely aspectual and modal tenets of the morpheme, they have predominantly treated –*(y)AcAk* as a marker of future tense. This prevailing view has persisted, despite emerging evidence suggesting that the morpheme may play a more nuanced and multifaceted role in the language.

In recent decades, on the other hand, more comprehensive and theoretically detailed approaches have emerged, reflecting a growing awareness of the limitations of previous frameworks. In the following discussion, I will classify the hitherto proposed accounts of this

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utilized as a tense marker. It hints at the probability of its diachronic usage as a modality marker of lesser frequency.

[26]   Arthur Lumley Davids, *A Grammar of the Turkish Language* (London: Parbury & Allen, 1832), 38, 40, 68; Ahmed Cevdet, *Medhal-i Kavâ'id* (İstanbul: Matbaa-i Âmire, 1852), 34-35; Gyula Németh, *Türkische Grammatik* (Berlin and Leipzig: Göschen, 1916), 80-81.

[27]   Willy Bang, *Monographien zur Türkischen Sprachgeschichte* (Heidelberg: Universitätsverlag Carl Winter, 1918), 34-35.

[28]   Jean Deny, *Grammaire de Langue Turque (Dialecte Osmanli)* (Paris: Leroux, 1921), 392, 437-438, 472-473, 1072.

[29]   Tahsin Banguoğlu, *Türkçenin Grameri* (İstanbul: Baha Matbaası, 1974), 442; Muharrem Ergin, *Türk Dil Bilgisi* (İstanbul: İstanbul University Literature Faculty Press, 1962), 289-292; Tahir Nejat Gencan, *Dilbilgisi* (İstanbul: Türk Dil Kurumu Yayınları, 1966), 233, 280-281; Geoffrey Lewis, *Turkish Grammar* (Oxford: Oxford University Press, 1967), 111-114; 623-636; Robert Underhill, *Turkish Grammar* (Cambridge, MA: MIT Press, 1976), 135-137, 290; Jaklin Kornfilt, *Turkish* (London: Routledge, 1997), 340-348, 414-415; Margarete I. Ersen-Rasch, *Türkische Grammatik für Anfänger und Fortgeschrittene* (Ismaning: Hueber, 2001, 161-166), Zeynep Korkmaz, *Türkiye Türkçesi Grameri: Şekil Bilgisi* (Ankara: Türk Dil Kurumu Yayınları, 2003), 623-636; Aslı Göksel and Celia Kerslake, *Turkish: A Comprehensive Grammar* (London: Routledge, 2005), 287-288, 301-304, 316-319, 391-394; Gerjan Van Schaaik, *The Oxford Turkish Grammar* (Oxford University Press, 2020), 217-218, 538, 574.

morpheme into three distinct categories: (i) tense marker, (ii) aspect marker, and (iii) multifunctional marker.

### Probing the Theoretical Challenges: Current Analyses of –(y)AcAk

A pivotal challenge for the last several decades lies in determining whether future markers should be treated primarily as tense markers, aspect markers, or both. Traditional grammars of Turkish have predominantly treated –(y)AcAk as a future tense marker. Yet, classifying –(y)AcAk as solely a marker of future tense becomes problematic, particularly in the light of its use in both finite and non-finite contexts, and the fact that it can co-occur with past tense marker –DI.

The overlapping of tense and aspect functions in the same morpheme, as observed with –(y)AcAk, points to the multifunctionality of future markers. The challenge of accounting for this multifunctionality is further compounded when it comes to embedded contexts where verbs are nominalized. As they host nominal inflectional markers like Case, nominalizations should categorically reject tense markers. Yet, morphemes like –(y)AcAk that purportedly mark future tense can appear in such contexts.

Furthermore, the challenges extend to the theoretical realm as well. Bybee's assertion that future does not belong to the same grammatical category as present and past, the prevalence of modal interpretations with future markers, and the lack of clear morphosyntactic and semantic boundaries between future and other tenses call for a rethinking of how future tense should best be viewed.[30] In the forthcoming sections, I will explore these challenges and their implications in greater depth; but before going into details, a few terminological remarks are in order.

Together with the ideas presented by Comrie and Klein, I adopt the canonical view of tense in its stronger version, defined as a deictic verbal category that establishes "a temporal relation between the situation described by the sentence and some deictically given time span."[31] The deictic time span is typically the moment of speech. More specifically, Klein defines three different times, and proposes that tense and aspect are reflexes of how these times are related.[32] Roughly speaking, these times are:

(2)      Times involved in TAM marking
           a. Utterance Time (UT)
              the time when the utterance is produced
           b. Topic Time (TT)
              the time about which the utterance is produced

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[30]      Bybee, *Morphology*, 155-157.
[31]      Bernard Comrie, *Tense* (Cambridge: Cambridge University Press, 1985); Klein, "How time is encoded," 42.
[32]      Klein, "How Time is Encoded," 73-76.

c. Situation Time (ST)
the runtime of the situation (event) the utterance describes

In Klein's model, Tense encodes a relation between UT and TT. If TT is before UT, we have a past tense; if TT is at or around UT, we have a present tense, and if TT is after UT, we have a future tense.[33]

(3)      Tense
a. TT<UT          =          Past Tense
b. TT at UT        =          Present Tense
c. TT>UT          =          Future Tense

Aspect, on the other hand, encodes a relation between TT and ST. If TT is included in ST, we have an imperfective aspect; if TT is at ST, we have a perfective aspect; if TT is after ST, we have a perfect aspect; and if TT is before ST, we have a prospective aspect.[34]

(4)      Aspect
a. TT incl. ST      =          Imperfective Aspect
b. TT at ST         =          Perfective Aspect
c. TT after ST      =          Perfect Aspect
d. TT before ST    =          Prospective Aspect

To get a better sense of it, let us exemplify these tense-aspect combinations with English examples.

(5) Tense-Aspect Combinations in English

|              | Past                    | Present              | Future                     |
| ------------ | ----------------------- | -------------------- | -------------------------- |
| Imperfective | *Alex was eating.*      | *Alex is eating.*    | *Alex will be eating.*     |
| Perfective   | *Alex ate.*             | *Alex eats.*         | *Alex will eat.*           |
| Prefect      | *Alex had eaten.*       | *Alex has eaten.*    | *Alex will have eaten.*    |
| Prospective  | *Alex was going to eat.* | *Alex is going to eat.* | *Alex will be going to eat.* |

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33      Klein, "How Time is Encoded," 43.
34      The Turkish language boasts a nuanced and intricate aspectual system. For a comprehensive exploration of this subject matter, one may consult seminal works such as Lars Johanson's *Aspekt im Türkischen: Vorstudien zu einer Beschreibung des Türkeitürkischen Aspektsystems* (Uppsala: Almqvist & Wiksell, 1971), as well as İbrahim Ahmet Aydemir's *Türkçede Zaman ve Görünüş Sistemi* (Ankara: Grafiker Yayınları, 2010).

The forthcoming subsections will provide a critical examination of three lines of analysis concerning Turkish *–(y)AcAk*, with an evaluative focus on their capacity to account for Turkish data within Klein's model.[35]

## Challenges in Applying a Tense Framework

Perhaps the most common view of *–(y)AcAk* in the literature is that it is a marker of future tense, at least in finite contexts,[36] though Kerslake, Cinque, and van Schaaik observe that it also functions as a marker of prospective aspect.[37] According to the tense view, the future reference in sentences containing *–(y)AcAk* comes directly from *–(y)AcAk* itself. In Klein's terms, this would mean that *–(y)AcAk* locates TT after UT.

The biggest shortcoming of the tense analysis is the cooccurrence problem. Given Klein's model, tense markers are standardly predicted to be mutually exclusive, as they attempt to deictically locate TT at conflicting points with respect to UT. Translated into structural terms, all tense markers are predicted to target the same syntactic slot, T°. It has been fairly well established that Turkish marks past tense by *–DI*, and present by *–Ø*. Note, however, that the purported future marker *–(y)AcAk* can cooccur with the obvious past marker *–DI*, unpredicted under the tense account.

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[35]   The literature reveals an array of studies focused on the modal functionality of the morpheme *–(y)AcAk*, although they are cited without extended discussion here due to space limitations. Among these are Derya Yücel Çetin and Nesrin Günay's article, "Eski Türkçeden Türkiye Türkçesine Gelecek Zamanın Kiplik Görünümleri," *Korkut Ata Türkiyat Araştırmaları Dergisi* 8 (2022): 262-272, which offers a diachronic examination of modal interpretations associated with the future tense in Turkish. Juyeong Jang contributes an MA thesis, "Türkçede ve Korecede Gelecek Zaman," (Master's Thesis, Hacettepe University, 2016), that deals with instances where *–(y)AcAk* is employed to signify various modal perspectives. Melike Üzüm, in her article "Zaman, Görünüş ve Kiplik İlişkisine Genel Bir Bakış," *Turkic Linguistics and Philology 1*, no. 1 (2018): 53-66, investigates the interactions among tense, aspect, and modality in Turkish, treating modality as a super category. Additional in-depth analysis is found in Caner Kerimoğlu's monograph, *Kiplik ve Kip* (Ankara: Pegem Akademi, 2018), while Seçil Hirik's doctoral dissertation, "Türkiye Türkçesinde Bilgi Kiplikleri" (PhD diss., Kırıkkale University, 2014), specifically addresses the domain of epistemic modality.

[36]   Engin Sezer, "Finite Inflection in Turkish," in *The Verb in Turkish*, ed. Eser E. Taylan (Amsterdam/Philadelphia: John Benjamins, 2001), 27; Guglielmo Cinque, "A Note on Mood, Modality, Tense and Aspect Affixes in Turkish," in *The Verb in Turkish*, ed. Eser E. Taylan (Amsterdam/Philadelphia: John Benjamins, 2001), 49-52; Gerjan Van Schaaik, "Periphrastic Tense/Aspect/Mood," in *The Verb in Turkish*, ed. Eser E. Taylan (Amsterdam/Philadelphia: John Benjamins, 2001), 65; Mürvet Enç, "Copulas and Functional Categories in Turkish," in *Proceedings of Workshop on Altaic Formal Linguistics 1*, eds. Anikó Csirmaz, Youngjun Lee, and Michael A. Walter (Cambridge, MA: MITWPL 46, 2004), 218.

[37]   Celia Kerslake, "Future Time Reference in Subordinate Clauses in Turkish," in *Proceedings of the VIIIth International Conference on Turkish Linguistics*, August 7-9, 1996, eds. Kâmile İmer, and Nadir E. Uzun (Ankara: Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Yayınları, 1997), 49-59; Cinque, "A Note on Mood," 53; Van Schaaik, "Periphrastic Tense," 79, 82-84.

(6)      Ne yap-acak-tı-k?
         what do–*(y)AcAk*-PST-1PL
         'What would we do?'

Therefore, we should at best avoid treating –*(y)AcAk* as a tense marker, if we were to maintain the canonical view of tense as a deictic category.

Göksel and Kerslake contend, however, that –*(y)AcAk* marks future in a relative sense, meaning "the expression of absolute … future tense is dependent on the absence of any other tense marker, such as the past copula –*(y)DI*, which would indicate a reference point other than the moment of speech."[38] Consequently, when –*(y)AcAk* cooccurs with the past –*DI*, it "locates an event or state at a time subsequent to some past reference point established by the discourse context."[39]

Göksel and Kerslake's proposal is probably based on the availability of deictic vs matrix anchoring we observe in sentences containing –*(y)AcAk* and –*DI*.

(7)      Geçen/Önümüzdeki yıl yeni bir öğretmen-imiz ol-acak-tı.
         last/next year new a teacher-1PL.POSS be–(y)AcAk-PST
         'Last/Next year we were going to have a new teacher.'[40]

In this sentence, the temporal reference may or may not be future in relation to the moment of speech (UT), as evidenced by the presence of the temporal expressions *geçen yıl* "last year" and *önümüzdeki yıl* "next year."[41] In other words, temporal anchoring may come directly from the deictic domain (deictic anchoring), or from the matrix clause (matrix clause anchoring).

Nevertheless, the relative view of tense, which I do not adopt in this study, has largely fallen out of favor. It would lead to a multitude of problems, which I will not review here for reasons of space.[42] For a minimum, if both –*DI* and –*(y)AcAk* are tense markers, one would have to make ad-hoc stipulations to account for why the latter can but the former cannot appear in nominalizations (see below). Further, under the relative view of tense, (8a) would probably be analyzed as involving a past tense stacked on top of the future tense, giving the so-called *future-of-past* reading.

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[38]     Göksel and Kerslake, *Turkish*, 284.
[39]     Göksel and Kerslake, *Turkish*, 287.
[40]     From Göksel and Kerslake, *Turkish*, 287.
[41]     Göksel and Kerslake, *Turkish*, 287.
[42]     Readers with interest in this approach may find the studies by Daniel A. Werning, "Aspect vs. Relative Tense, and the Typological Classification of the Ancient Egyptian sḏm. n= f," *Lingua Aegyptia* 16 (2008): 261-292, and Jürgen Bohnemeyer, "Aspect vs. Relative Tense: The Case Reopened," *Natural Language & Linguistic Theory* 32 (2014): 917-954, particularly illuminating.

(8)     a.  gel-ecek-ti
              come-*(y)AcAk*-PST
        b. *gel-di-yecek
              come-PST-*(y)AcAk*

Why is then (8b), with the same tense markers in reversed order, ungrammatical under a *past-of-future* reading? Under the tense view, one would have to make rather ad-hoc stipulations to rule out (8b).

One further problem with the tense view concerns nominalizations. Göksel, Kornfilt, and Sezer and note that –*(y)AcAk* also marks future tense in non-finite contexts, thereby standing in opposition to the non-future –*DIK* and –*(y)An*.[43] Here is the enigma: Turkish verbs in embedded contexts are nominalized, as evident by their ability to host nominal inflectional markers like Case. Being nominal, they should categorically reject tense markers, though not aspectual ones. (9) confirms this prediction, making it highly unlikely that –*(y)AcAk* is a future tense marker.

(9)     (-tense, +aspect/–*(y)AcAk*)
        a. siz-e söyle{-miş/-yor/-yecek} ol-duğ-um şey
            you-DAT tell-PERF IMPF –*(y)AcAk* COP-NOML-1SG thing
            'the thing I {have/had told / am/was telling / will/would tell} you'

        (+tense, -aspect)
        b. *siz-e söyle-di ol-duğ-um şey
             you-DAT tell-PST COP-NOML-1SG thing
             Int.: 'the thing I told you'

          (+tense, +aspect/–*(y)AcAk*)
        c. *siz-e söyle-miş-ti ol-duğ-um şey
             you-DAT tell-PERF-PST COP-NOML-1SG thing
             Int.: 'the thing I had told you'
        c'. *siz-e söylü-yor-du ol-duğ-um şey
        you-DAT tell-IMPF-PST COP-NOML-1SG thing
             Int.: 'the thing I was telling you'
        c''. *siz-e söyle-yecek-ti ol-duğ-um şey
             you-DAT tell–*(y)AcAk*-PST COP-NOML-1SG thing
              Int.: 'the thing I would tell you'

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43      Aslı Göksel, "The Auxiliary Verb 'ol' at the Morphology-Syntax Interface," in *The Verb in Turkish*, ed. Eser E. Taylan (Amsterdam/Philadelphia: John Benjamins, 2001), 155; Jaklin Kornfilt, "Subject Case in Turkish Nominalized Clauses," in *Syntactic Structures and Morphological Information*, eds. Uwe Junghanns, and Luka Szucsich (Berlin/New York: Mouton de Gruyter, 2003), 169; Sezer, "Finite Inflection," 29-30.

Finally, the tense view fares quite poorly with periphrastic expressions involving *–(y)AcAk*.

(10)     Gel{-miş/-iyor} ol-acak-tı.
         come-PERF IMPF COP-*(y)AcAk*-PST
         'S/he would {have come / be coming}.'

Such examples abound in Turkish, constituting a test bed for evaluating theories of *–(y)AcAk*.

### Challenges in Applying an Aspect Framework

The problem is further complicated by the fact that *–(y)AcAk* has a clear future reference in the absence of *–DI*.

(11)     Toplantı üç-te başla-yacak.
         meeting three-LOC start–(y)AcAk
         'The meeting will start at three.'

Should *–(y)AcAk* not be considered as a marker of future tense, the question that arises is where this unambiguous future reference comes from. Perhaps it is the case, as has been argued by Cinque and van Schaaik (inter alia), that *–(y)AcAk* is a marker of what is known as the prospective aspect.[44] Key and Schreiner add that it always marks prospective aspect, in matrix as well as embedded clauses.[45]

Aspect is also a verbal category that expresses a particular viewpoint of the speaker on the situation described by the sentence.[46] The situation may be viewed as completed (perfective aspect) or ongoing (imperfective aspect). It might also be viewed as not yet started or about to start (prospective aspect).

For proponents of the aspectual analysis like Jendraschek, sentences akin to (11) that exhibit a distinct future reference would be reinterpreted as present prospective forms.[47] This reclassification would result in a de facto future reading, effectively assigning a futurity to the interpreted present time reference. This is because, according to Klein, Present Tense locates TT at UT, and Prospective Aspect locates ST after TT.[48] So, under the aspect view, future reference comes not from the tense (which is present anyway), but from the interaction between tense (present) and aspect (prospective).

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[44]     Cinque, "A Note on Mood," 53; Van Schaaik, "Periphrastic Tense/Aspect/Mood," 84.
[45]     Greg Key and Sylvia L. R. Schreiner, "The Prospective Marker in Turkish: A Unified Treatment," paper presented at the 10th Workshop on Altaic Formal Linguistics (WAFL10), MIT, May 2-4, 2014.
[46]     Klein, "How Time is Encoded," 40.
[47]     Gerd Jendraschek, "A Fresh Look at the Tense-Aspect System of Turkish," *Language Research* 47, no. 2 (2011): 256-257.
[48]     Klein, "How Time is Encoded," 51.

(12)     a. Çalış-acak-tı-m.
             work-*(y)AcAk*-PST-1SG
         'I would work.'
         b. Çalış-acağ-Ø-ım.
         work-*(y)AcAk*-PRS-1SG
         'I will work.'

We have a prospective past sentence in (12a), and a prospective present in (12b).[49]

    As with the tense view, the greatest issue with the aspect view is the cooccurrence problem. If –*(y)AcAk* is a marker of prospective aspect, it is predicted to categorically reject cooccurrence with –*mIş* (perfect aspect marker) and –*Iyor* (imperfective aspect marker), as their cooccurrence would lead to conflicting viewpoints. This prediction, however, is not borne out.

(13)     a. Rapor-lar üç-te yaz-ıl-mış ol-acak(-tı).
             report-PL three-LOC write-PASS-PERF COP–*(y)AcAk*-PST
             'The reports will/would have been written at three.'
         b. Rapor-lar üç-te yaz-ıl-ıyor ol-acak(-tı).
             report-PL three-LOC write-PASS-IMPF COP–*(y)AcAk*-PST
             'The reports will/would be being written at three.'

These periphrastic expressions involving –*(y)AcAk* pose great challenges for the –*(y)AcAk-as-aspect* analysis. Thus, conceptual and theoretical reasons force us to abandon the hypothesis that –*(y)AcAk* is a marker of prospective aspect.

    Another issue with the aspect view is the ordering problem. Apart from the question of how aspect markers can cooccur, why is it that, when –*(y)AcAk* cooccurs with other aspectual markers (say the imperfective), it can follow (14a) but not precede (14b) them?

(14)     a. Rapor-lar yaz-ıl-ıyor ol-acak.
             report-PL write-PASS-IMPF COP-*(y)AcAk*
             'The reports will be being written.'
         b. *Rapor-lar yaz-ıl-acak ol-uyor.
             report-PL write-PASS-*(y)AcAk* COP-IMPF
             'The reports will be being written.'

Finally, we seem to have a terminological problem here. By analogy to (13b), we conclude that *ol-acak* in (14a) is a present prospective form. Nevertheless, the sentence also involves the imperfective aspect marker –*(I)yor*. Now, is (14a) a "present prospective imperfective" form, or what?

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[49]     Note that there is no future tense in this view.

Once again, considerations of conceptual and theoretical consistency force us to reject the –*(y)AcAk-as-aspect* account, since aspectual markers, being paradigmatically related, should resist cooccurrence.

## Challenges in Applying a Multifunctional Framework

The literature thus presents two primary interpretations of –*(y)AcAk*: as a future tense marker and as a prospective aspect marker. However, the morpheme's frequent co-occurrence with other tense and aspect markers suggests that a straightforward classification of –*(y)AcAk* may not be possible. Furthermore, the observation that –*(y)AcAk* can embody both future and non-future interpretations muddies the waters. Such varied interpretations challenge the task of assigning a singular, consistent function to –*(y)AcAk*.

This prompts Kerslake, van Schaaik, and Cinque to argue for two distinct functions of –*(y)AcAk*: one as a marker of prospective aspect and the other as a future tense marker.[50] Among the three scholars, Cinque offers the most detailed explanation. He bases his analysis on his earlier cartographic model, where he proposes a comprehensive and structured functional hierarchy above the lexical VP (15):

(15)    Cinque's Cartographic Model

$\text{MoodP}_{\text{speech act}} > \text{MoodP}_{\text{evaluative}} > \text{MoodP}_{\text{evidential}} > \text{ModP}_{\text{epistemic}} > \textbf{TP}_{\textbf{past}} > \textbf{TP}_{\textbf{future}} > \text{MoodP}_{\text{irrealis}} > \text{TP}_{\text{anterior}} > \text{ModP}_{\text{alethic}} > \text{AspP}_{\text{habitual}} > \text{AspP}_{\text{repetitive(I)}} > \text{AspP}_{\text{frequentative(I)}} > \text{ModP}_{\text{volition}} > \text{AspP}_{\text{celerative(I)}} > \text{AspP}_{\text{terminative}} > \text{AspP}_{\text{continuative}} > \text{AspP}_{\text{perfect}} > \text{AspP}_{\text{retrospective}} > \text{AspP}_{\text{proximative}} > \text{AspP}_{\text{durative}} > \text{AspP}_{\text{progressive}} > \textbf{AspP}_{\textbf{prospective}} > \text{AspP}_{\text{inceptive(I)}} > \text{ModP}_{\text{obligation}} > \text{ModP}_{\text{ability}} > \text{AspP}_{\text{frustrative/success}} > \text{ModP}_{\text{permission}} > \text{AspP}_{\text{conative}} > \text{AspP}_{\text{completive(I)}} > \text{VoiceP} > \text{AspP}_{\text{repetitive(II)}} > \text{AspP}_{\text{frequentative(II)}} > \text{AspP}_{\text{celerative(II)}} > \text{AspP}_{\text{inceptive(II)}} > \text{AspP}_{\text{completive(II)}} > \text{V}$[51]

The novelty here lies in treating tense and aspect markers as iterative categories that can stack on top of one another. As for –*(y)AcAk*, Cinque argues that it marks prospective aspect when it does not cooccur with the past tense marker –*DI*.

(16)    Hasan kapı-yı aç-acak ol-du.[52]
Hasan door-ACC open-*(y)AcAk* COP-PST
'Hasan was about to open the door (but did not).'[53]

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[50]    Cinque, "A Note on Mood," 54; Kerslake, "Future Time Reference," 53; Van Schaaik, "Periphrastic Tense/Aspect/Mood," 85.

[51]    Guglielmo Cinque, *Adverbs and Functional Heads: A Cross-Linguistic Perspective* (Oxford: Oxford University Press, 1999), 106.

[52]    From Cinque, "A Note on Mood," 54, citing Kornfilt, *Turkish*, 341.

[53]    Expressions involving –*(y)AcAk ol-* yield an interpretation wherein the specified event has not realized. The most natural interpretation of (16) is that "Hasan did not open the door." I would like to extend my

When –*(y)AcAk* and –*DI* are stacked, however, they both mark tenses, yielding the so-called *future-of-past* reading.

(17)    Dün gel-ecek-ti.[54]
        yesterday come-*(y)AcAk* -PST
        'He was going to come yesterday.'

Cinque's departing point in for proposing (15) is the observation that adverbs of different functions are strictly ordered with respect to one another. This is taken as evidence that these adverbs must be targeting Spec positions of a hierarchically ordered structural layers, rather than adjoining to TP/VP in an unordered fashion.

Judging by (15), Cinque must be assuming a relative view of tense. Nevertheless, the hypothesis that past tense is projected above future tense is conceptually and theoretically inelegant, as it deviates from the principle that elements standing in a paradigmatic relation must target the same structural slot.

Further, Cinque's cartography incorrectly predicts two occurrences of –*(y)AcAk* in a single sentence, one for prospective aspect and another for future tense.

(18)    *Hasan rapor-u yaz-acak ol-acak.
         Hasan report-ACC write-*(y)AcAk* COP-*(y)AcAk*
         Int.: 'Hasan will be going to write the report.'

Note here that future prospectives are not theoretically ruled out, as evidenced by the English translation. (18) is a sentence of UT>TT, and TT before ST, in Klein's terms, which is ruled in theoretically. This being the case, Cinque would have to propose mechanism by which (18) is ruled out; and crucially, this account may not be based on the adjacency of two instances of homophonous –*(y)AcAk*.

Furthermore, the fact that –*(y)AcAk* marks multiple categories could potentially lead to inconsistencies and ambiguities in interpretation. These can have significant implications for language comprehension and processing. Thus, it is not only a theoretical problem but also a practical one.

Next, we will shift our attention to a potentially more compelling interpretation. An innovative and comprehensive approach situates –*(y)AcAk* within the domain of modality. This

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gratitude to an anonymous reviewer for bringing this to my attention. For a more comprehensive understanding of the negative semantic connotations in such utterances, see Kornfilt, *Turkish*, 341.

[54]    From Cinque, "A Note on Mood," 54, citing Feryal Yavaş's doctoral dissertation, "On the Meaning of Tense and Aspect Markers in Turkish," (University of Kansas, 1980), 23.
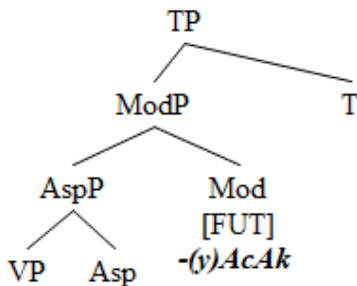
intriguing proposition warrants meticulous analysis and rigorous assessment, which I will embark upon in the subsequent section.


### Deciphering the Enigma: An Evaluation of Rivero's Modal Hypothesis


The multifaceted functionality of the *–(y)AcAk* morpheme within the Turkish language calls for a comprehensive exploration. A compelling line of argument positions *–(y)AcAk* as a marker of modality,[55] a perspective prominently championed by Rivero.[56] This view is predicated on the proposal that *–(y)AcAk*, in its role as a modal, does not inherently encode temporality, which arises from the nature of the aspectual marker scoping under FUT. The ingredients of Rivero's account are briefly as follows.

Rivero proposes that markers of future like *–(y)AcAk* are modal operators that scope under tense but over aspect, giving us (19) for a head-final language like Turkish.

(19)    Syntax

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                  TP
                 /  \
              ModP    T
             /    \
          AspP     Mod
         /  \     [FUT]
       VP    Asp  -(y)AcAk
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[55]   For readers intent on further exploration of the complexities surrounding future temporal reference within the Turkish linguistic context, a thorough engagement with the foundational contributions of Yavaş is highly advised. Her seminal works, namely "The Turkish Future Marker," *Kansas Working Papers in Linguistics* 5 (1980): 139-149, and "Future Reference in Turkish," *Linguistics* 20 (1982): 411-429, present a compelling argument that reframes the traditional analysis of the suffix *–(y)AcAk*. Yavaş posits that this morphological marker is more aptly characterized within a modality framework, accentuating its role in indicating the speaker's degree of certainty about the eventuality, rather than functioning strictly as a future tense indicator. Owing to space constraints and considering that Rivero's analysis also incorporates aspects of Yavaş' theoretical framework, a comprehensive discussion of her invaluable insights is regrettably beyond the scope of the present paper.

[56]   María Luisa Rivero, "Epistemic Futures and Aspect," in *Verb and Context: The Impact of Shared Knowledge on TAME Categories*, ed. S. Rodríguez Rosique and Jordi M. Antolí Martínez (Amsterdam: Benjamins, 2023), 231-261.

In this account, *–(y)AcAk*, being a modal, imposes no inherent future reference. Rivero bases this proposal on two set of facts. One is the observation that *–(y)AcAk* patterns with canonical modals like the necessitative *–mAlI* in allowing present epistemic readings with statives (simple or compositionally derived, i.e. imperfective).

(20)     a. Hasan şimdi uyu-yor ol-malı.
             Hasan now sleep-IMPF COP-NECES
             'Hasan must be sleeping now.'
         b. Hasan şimdi uyu-yor ol-acak.[57]
             Hasan now sleep-IMPF COP-*(y)AcAk*
             'Hasan will be sleeping now.'

    Similarly, eventives (basic or compositionally derived, i.e. perfective) yield future readings with modals as well as *–(y)AcAk*.

(21)     a. Hasan şimdi uyu-malı.
             Hasan now sleep-NECES
             'Hasan must sleep now.'
         b. Hasan şimdi uyu-yacak.
             Hasan now sleep-*(y)AcAk*
             'Hasan will sleep now.'

    Another observation is the fact that, with periphrastic Turkish expressions involving statives, *ol–* support is required as a base for modals and *–(y)AcAk* to attach to.

(22)     a. Hasan şimdi uyu-muş *(ol)-malı.
             Hasan now sleep-PERF COP-NECES
             'Hasan must have slept now.'
         b. Hasan şimdi uyu-muş *(ol)-acak.
             Hasan now sleep-PERF COP-*(y)AcAk*
             'Hasan will have slept now.'

    Rivero takes these parallelisms to establish the modal identity of future markers. The proposal that future markers are modals is not uncommon, though. Recall from the introductory section that in German, sentences involving future markers may have modal interpretations like inference, alongside their future readings. This carries over to Turkish as is:

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[57]     From Rivero, "Epistemic Futures and Aspect," 240.

(23)  Hasan uyu-yor ol-acak.
      Hasan sleep-IMPF COP-*(y)AcAk*
      i. Hasan will be sleeping (some time in the future).
      ii. It is likely that Hasan is sleeping now.

If *–(y)AcAk* is purely a modal with no temporality, where does the future reference come from? According to Rivero, temporal anchoring is a reflex of viewpoint aspect located under FUT and present tense located over FUT. In a structure like (19), the possible occurrences of different viewpoint aspects with FUT and Present Tense, and the interpretation they give rise to, are as follows:

(24)  Temporal anchoring with FUT
      a. $[[[[VP] \quad ASP_{imperfective}] \quad FUT] \quad T_{present}]$
         interpretation: present epistemic
         e.g. *Hasan uyu-yor ol-acak-Ø.*
      b. $[[[[VP] \quad ASP_{perfect}] \quad FUT] \quad T_{present}]$
         interpretation: back-shifted
         e.g. *Hasan uyu-muş ol-acak-Ø.*
      c. $[[[[VP] \quad ASP_{perfective}] \quad FUT] \quad T_{present}]$
         interpretation: forward-shifted
         e.g. *Hasan uyu-Ø-yacak-Ø.*

As can be seen, if the viewpoint aspect that scopes under the modal FUT is the imperfective *–(I)yor*, we have a present epistemic reading. If the aspect is the perfect *–mIş*, we have a back-shifted interpretation. Crucially, if the aspectual value is perfective, which is assumed to be phonologically null (*–Ø*) in Turkish, we have a forward-shifted reading, whence the observed future reference. According to Rivero, the phonologically null perfective allows for a syncretic future in Turkish, which would otherwise always be periphrastic.

The assumption that (24c) involves a covert perfective marker rests upon Rivero's hypothesis, underpinned by two key pieces of evidence. The first draws from the South Slavic languages of Bulgarian and Slovenian, wherein periphrastic futures employing overt perfective morphology invariably result in forward-shifted readings. By extension, considering that (24c) can only generate a forward-shifted interpretation with respect to UT, it is posited that this example, too, contains a (covert) perfective marker. The second piece of evidence originates from the observation that Turkish lacks simple present expressions analogous to English examples such as *Alex eats*. This limitation necessitates the use of imperfective present forms in Turkish, even in the presence of stative verbs.

Rivero takes this to mean that Turkish avoids semantic perfective presents, which have been demonstrated to impose interpretive conflicts. The problem with perfective presents is that, by definition, it requires events to fit into UT, which is too short an instant to accommodate events

that take time to develop. Faced with such a challenge, some languages reject perfective presents altogether, while others, such as Slovenian, associate them with future-oriented readings.[58] Given this parallelism, Rivero asserts that Turkish patterns with Slovenian in associating perfective presents with future-oriented interpretations.[59] If so, she then concludes that the strictly future-oriented example in (24c) must involve a perfective marker.

In a nutshell, what Rivero argues is that future reference in Turkish comes from Perfective Present forms, similar to English *Mary listens to music* (embedded under FUT, of course), a rather interesting proposal indeed. Nevertheless, her account is highly successful in capturing the distribution of syncretic as well as periphrastic expressions involving *–(y)AcAk*.

(25)      Rapor yarın beş-te bit-miş ol-Ø-acak.
          Report tomorrow five-LOC finish-PERF be-PRF-*(y)AcAk*
          'The report will have been finished at five tomorrow.'

In a sentence like (25), *ol-Ø-acak* is a Perfective Present, which will necessarily have a forward-shifted interpretation. *Bit-miş*, on the other hand, is in the Perfect aspect, leading to a back-shifted reading. Predictably, the sentence asserts of a TT in the future (tomorrow five o'clock) that the event of "the report being finished" will have occurred before this time, which successfully captures the only interpretation of (25).

In fact, Rivero's account is perhaps the only one that seriously addresses such periphrastic expressions and highlights crosslinguistic parallelisms with morphosyntactic and semantic evidence. Nevertheless, based entirely on *–(y)AcAk* as a modal, Rivero's model says nothing about expressions that apparently have no modal content, like *yarın kar yağ-acak* "it will snow tomorrow."

Rivero's argument encapsulates the intricate interplay of modality, aspect, and tense in Turkish, with *–(y)AcAk* serving as a central element in this interaction. It prompts further contemplation of how *–(y)AcAk* both shapes and is shaped by these grammatical components.

## Concluding Remarks

This study represents a thorough odyssey into the labyrinthine analyses of the enigmatic Turkish morpheme *–(y)AcAk*, peeling back layer upon layer to expose the inherent dilemmas and constraints present within these scholarly frameworks. The paramount aim of this paper has been to etch an all-encompassing portrait of our current understanding, a portrait that may serve as a

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[58]      Rivero, "Epistemic Futures and Aspect," 238.
[59]      Note that future time is not an instant and can accommodate events that may take a long time to unfold.

solid launching pad for future scholarly expeditions, set to conquer the lingering mysteries and procure a more sophisticated comprehension of this multifaceted and tantalizing morpheme.

I started with some theoretical issues surrounding *–(y)AcAk*, highlighting its stark crosslinguistic contrast to present/past tense markers. Subsequently, I engaged in a systematic critique of the principal perspectives surrounding *–(y)AcAk*, with a pointed focus on those methodologies that proposed to classify it within the domains of tense and aspect. While these approaches have unearthed significant treasures contributing to our comprehension of *–(y)AcAk*, they remain locked in a fierce struggle to reconcile with its elusive distributional and interpretational characteristics.

The distributional conundrums bubble up from the frequent alliance of *–(y)AcAk* with other tense and aspect markers. This alliance, much like an unholy pact, torments existing analyses, being at odds with the notion that *–(y)AcAk* is a solitary warrior battling on the fields of tense or aspect. Interpretational riddles, on the other hand, spring from the myriad interpretations that *–(y)AcAk* can engender, spanning the gamut from future and non-future readings, to epistemic and non-epistemic implications. These kaleidoscopic interpretations throw a wrench in attempts to neatly box *–(y)AcAk* within the confines of tense and aspect.

Upon scrutinizing Rivero's modal hypothesis, a reformed understanding of *–(y)AcAk* surfaces, placing it within a modal paradigm, straying from its conventional alignment with tense or aspect. This alternative perspective offers a stimulating framework to engage with the intricacies of *–(y)AcAk*.

To encapsulate our exploration thus far:

i.  *–(y)AcAk* cannot be a future tense marker as

    a.  it can cooccur with other tense markers, and

    b. it appears with nominalized forms, which, by definition, resist tense information,

ii.  *–(y)AcAk* cannot be a marker of prospective aspect as it can cooccur with other aspectual markers; and

iii. *–(y)AcAk* can still unambiguously refer to future tense in non-past-marked sentences, and to what is called *future-of-past* in past tense sentences.

iv. *–(y)AcAk*'s role as a modal operator, as proposed by Rivero, offers a plausible explanation for its diverse functions and interpretations, yet this approach still needs further investigation and evidence for comprehensive validation.

Let us plot all these up in a table.

(25)     Accounts of *–(y)AcAk* compared

| Analysis | Future reference comes from | Example | Major problem |
|---|---|---|---|
| Tense view | TENSE$_{future}$ | *Hasan çalış-acak.*<br>Hasan work-FUT<br>'Hasan will work.' | cooccurrence with other tenses<br>*Hasan çalış-acak-tı.*<br>Hasan work-FUT-PST<br>'Hasan would work.' |
| Aspect view | ASPECT$_{prospective}$<br>+<br>TENSE$_{present}$ | *Hasan çalış-acak-Ø.*<br>Hasan work-PROS-PRS<br>'Hasan will work.' | cooccurrence with other aspectual markers<br>*Hasan çalış-ıyor ol-acak-Ø.*<br>Hasan work-IMPF be-PROS-PRS<br>'Hasan will be working.' |
| Multifunctional view | TENSE$_{future}$ and/or<br>ASPECT$_{prospective}$<br>+<br>TENSE$_{present}$ | *Hasan çalış-acak.*<br>Hasan work-FUT<br>'Hasan will work.'<br>Or *Hasan çalış-acak-Ø.*<br>Hasan work-PROS-PRS<br>'Hasan will work.' | hard to constrain to prevent overgeneration |
| Modal view | ASPECT$_{perfective}$<br>+<br>FUT$_{modal}$<br>+<br>TENSE$_{present}$ | *Hasan çalış-Ø-acak-Ø.*<br>Hasan work-PRF-FUT-PRS<br>'Hasan will work.' | not many |

Despite the depth of analyses and array of evidence put forth, extant perspectives on aspect and tense seem to fall short in adequately grappling with the manifold nature of Turkish *–(y)AcAk*. Yet, Rivero's modal hypothesis emerges as a compelling alternative. This novel framework edges closer to solving the conundrum of *–(y)AcAk*, postulating a holistic understanding of this morpheme within a modal schema, thereby challenging the established dichotomy of tense and aspect.

The modal lens offered by Rivero illuminates a path for a more nuanced understanding and flings open the doors to hitherto unexplored territories of research. Thus, it amplifies the need for further, in-depth exploration into the role of *–(y)AcAk*, fueled by empirical evidence and innovative methodologies, as we continue to map the uncharted expanses of the Turkish linguistic landscape.

# References

Ahmed Cevdet. *Medhal-i Kavâ'id.* İstanbul: Matbaa-i Âmire, 1852.

Aydemir, İbrahim Ahmet. *Türkçede Zaman ve Görünüş Sistemi.* Ankara: Grafiker Yayınları, 2010.

Bang, Willy. *Monographien zur Türkischen Sprachgeschichte.* Heidelberg: Universitätsverlag Carl Winter, 1918.

Banguoğlu, Tahsin. *Türkçenin Grameri.* İstanbul: Baha Matbaası, 1974.

Bohnemeyer, Jürgen. "Aspect vs. Relative Tense: The Case Reopened." *Natural Language & Linguistic Theory* 32 (2014): 917-954.

Bybee, Joan L. *Morphology: A Study of the Relationship between Meaning and Form.* Amsterdam: John Benjamins, 1985.

Çetin, Derya Yücel and Nesrin Günay. "Eski Türkçeden Türkiye Türkçesine Gelecek Zamanın Kiplik Görünümleri." *Korkut Ata Türkiyat Araştırmaları Dergisi* 8 (2022): 262-272.

Cinque, Guglielmo. "A Note on Mood, Modality, Tense and Aspect Affixes in Turkish." In *The Verb in Turkish*, edited by Eser E. Taylan, 46-59. Amsterdam/Philadelphia: John Benjamins, 2001.

Cinque, Guglielmo. *Adverbs and Functional Heads: A Cross-Linguistic Perspective.* Oxford: Oxford University Press, 1999.

Comrie, Bernard. *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems.* Cambridge: Cambridge University Press, 1976.

Comrie, Bernard. *Tense.* Cambridge: Cambridge University Press, 1985.

Comrie, Bernard, and Sandra A. Thompson. "Lexical Nominalization." In *Language Typology and Syntactic Description, Volume III: Grammatical Categories and the Lexicon*, edited by Timothy Shopen, 334-381. Cambridge: Cambridge University Press, 2007.

Dahl, Östen. *Tense and Aspect Systems.* Oxford: Blackwell, 1985.

Davids, Arthur Lumley. *A Grammar of the Turkish Language: With a Preliminary Discourse on the Language and Literature of the Turkish Nations, a Copious Vocabulary, Dialogues, a Collection of Extracts in Prose and Verse, and Lithographed Specimens of Various Ancient and Modern Manuscripts.* London: Parbury & Allen, 1832.

Deny, Jean. *Grammaire de Langue Turque (Dialecte Osmanli).* Paris: Leroux, 1921.

Enç, Mürvet. "Copulas and Functional Categories in Turkish." In *Proceedings of Workshop on Altaic Formal Linguistics 1*, edited by Anikó Csirmaz, Youngjun Lee, and Michael A. Walter, 208-226. Cambridge, MA: MITWPL 46, 2004.

Ergin, Muharrem. *Türk Dil Bilgisi.* İstanbul: İstanbul University Literature Faculty Press, 1962.

Ersen-Rasch, Margarete I. *Türkische Grammatik für Anfänger und Fortgeschrittene.* Ismaning: Hueber, 2001.

Forsyth, James. *A Grammar of Aspect: Usage and Meaning in the Russian Verb.* Cambridge University Press, 1970.

Gencan, Tahir Nejat. *Dilbilgisi.* İstanbul: Türk Dil Kurumu Yayınları, 1966.

Göksel, Aslı, and Celia Kerslake. *Turkish: A Comprehensive Grammar.* London: Routledge, 2005.

Göksel, Aslı. "The Auxiliary Verb 'ol' at the Morphology-Syntax Interface." In *The Verb in Turkish*, edited by Eser E. Taylan, 151-181. Amsterdam/Philadelphia: John Benjamins, 2001.

Hirik, Seçil. "Türkiye Türkçesinde Bilgi Kiplikleri." PhD diss., Kırıkkale University, 2014.

Huddleston, Rodney, and Geoffrey K. Pullum. *The Cambridge Grammar of the English Language.* Cambridge: Cambridge University Press, 2002.

İskender, Halil İ. "Türkçede Üçüncü Çoğul Şahıs İyelik Ekinin Biçimbilimsel Gösterimi." In *KLU TDE Bölümü 2009'dan 2019'a 10. Yıl Hatıra Kitabı*, 213-226. İstanbul: Akademik Kitaplar, 2019.

Jang, Juyeong. "Türkçede ve Korecede Gelecek Zaman." Master's Thesis, Hacettepe University, 2016.

Jendraschek, Gerd. "A Fresh Look at the Tense-Aspect System of Turkish." *Language Research* 47, no. 2 (2011): 246-271.

Johanson, Lars. *Aspekt im Türkischen: Vorstudien zu einer Beschreibung des Türkeitürkischen Aspektsystems.* Uppsala: Almqvist & Wiksell, 1971.

Kerimoğlu, Caner. *Kiplik ve Kip*. Ankara: Pegem Akademi, 2018.

Kerslake, Celia. "Future Time Reference in Subordinate Clauses in Turkish." In *Proceedings of the VIIIth International Conference on Turkish Linguistics, August 7-9, 1996*, edited by Kâmile İmer, and Nadir E. Uzun, 49-59. Ankara: Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Yayınları, 1997.

Key, Greg, and Sylvia L. R. Schreiner. "The Prospective Marker in Turkish: A Unified Treatment." Paper presented at the 10th Workshop on Altaic Formal Linguistics (WAFL 10), MIT, May 2-4, 2014. http://www.sylvialrschreiner.com/wpcontent/uploads/TheProspectiveMarkerinTurkishAUnifiedTreatmentFinal.pdf

Klein, Wolfgang. *Time in Language.* London: Routledge, 1994.

Klein, Wolfgang. "How Time is Encoded." In *The Expression of Time*, edited by W. Klein, and P. Li, 39-81. Berlin: Mouton de Gruyter, 2009.

Korkmaz, Zeynep. *Türkiye Türkçesi Grameri: Şekil Bilgisi*. Ankara: Türk Dil Kurumu Yayınları, 2003.

Kornfilt, Jaklin. "Subject Case in Turkish Nominalized Clauses." In *Syntactic Structures and Morphological Information*, edited by Uwe Junghanns, and Luka Szucsich, 129-215. Berlin/New York: Mouton de Gruyter, 2003.

Kornfilt, Jaklin. *Turkish.* London: Routledge, 1997.

Lang, Margaret, and Isabelle Perez. *Modern French Grammar: A Practical Guide.* Routledge, 2004.

Lewis, Geoffrey. *Turkish Grammar.* Oxford: Oxford University Press, 1967.

Lyons, John. *Semantics: Volume 2*. Cambridge: Cambridge University Press, 1977.

Meninski, Franciscus à Mesgnien. *Linguarum Orientalium Turcicae, Arabicae, Persicae Institutiones seu Grammatica Turcica.* Vienna: Selbstverl, 1680.

Michael, Lev. "The Nanti Reality Status System: Implications for the Typological Validity of the Realis/Irrealis Contrast." *Linguistic Typology* 18, no. 2 (2014): 251-288.

Mithun, Marianne. *The Languages of Native North America*. Cambridge: Cambridge University Press, 2001.

Németh, Gyula. *Türkische Grammatik.* Berlin and Leipzig: Göschen, 1916.

Palmer, Frank Robert. *Mood and Modality*. Cambridge: Cambridge University Press, 2001.

Pinkster, Harm. "The Development of Future Tense Auxiliaries in Latin." *Glotta* 63 (1985): 186-208.

Po-Ching, Yip, and Don Rimmington. *Chinese: An Essential Grammar*. Routledge, 2021.

Reichenbach, Hans. "The Tenses of Verbs." In *The Language of Time: A Reader*, edited by Inderjeet Mani, James Pustejovsky, and Robert Gaizauskas, 71-78. Oxford: Oxford University Press, 2005.

Rivero, María Luisa. "Epistemic Futures and Aspect." In *Verb and Context: The Impact of Shared Knowledge on TAME Categories*, edited by S. Rodríguez Rosique and Jordi M. Antolí Martínez, 231-261. Amsterdam: Benjamins, 2023.

Sezer, Engin. "Finite Inflection in Turkish." In *The Verb in Turkish*, edited by Eser E. Taylan, 1-45. Amsterdam/Philadelphia: John Benjamins, 2001.

Timurtaş, Faruk Kadri. "Eski Anadolu Türkçesi." In *Türk Dünyası El Kitabı II: Dil-Kültür Sanat*, 120-145. Ankara: Türk Kültürünü Araştırma Enstitüsü Yayınları, 1992.

Turgay, Tacettin. "Classifier Constructions of Turkish." PhD Thesis, Boğaziçi University, 2020.

Underhill, Robert. *Turkish Grammar.* Cambridge, MA: MIT Press, 1976.

Üzüm, Melike. "Zaman, Görünüş ve Kiplik İlişkisine Genel Bir Bakış." *Turkic Linguistics and Philology* 1, no. 1 (2018): 53-66.

Van Schaaik, Gerjan. "Periphrastic Tense/Aspect/Mood." In *The Verb in Turkish*, edited by Eser E. Taylan, 61-95. Amsterdam/Philadelphia: John Benjamins, 2001.

Van Schaaik, Gerjan. *The Oxford Turkish Grammar.* Oxford University Press, 2020.

Werning, Daniel A. "Aspect vs. Relative Tense, and the Typological Classification of the Ancient Egyptian sḏm. n= f." *Lingua Aegyptia* 16 (2008): 261-292.

Yavaş, Feryal. "The Turkish Future Marker." *Kansas Working Papers in Linguistics* 5 (1980): 139-149.

Yavaş, Feryal. "Future Reference in Turkish." *Linguistics* 20 (1982): 411-429.