

Finite inflection in Turkish

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*To the memory of Robert Lees (1922–1996),
the father of Turkish generative linguistics*

1. Introduction

The morphosyntactic properties of the Turkish verbal and nominal inflection has been studied at great length by traditional and generative grammarians. Generally speaking, the order, shape and meaning of the affixes that represent tense, aspect, mood and agreement have been well identified. To this date, by far the most comprehensive and substantial treatment of these topics, as more or less everything else on Turkish grammar, is Deny (1921). Many salient characteristics of the topic have also been properly dealt with by Kononov (1956), Lewis (1967), Underhill (1976) and Ediskun (1985), among traditional type grammars. Johanson (1971), is a comprehensive study of Turkish aspect system. Aksu Koç (1988), Erguvanlı-Taylan (1986, 1988, 1996), Kocaman (1996), Kuruoğlu (1986), Slobin and Aksu (1982), Yavaş (1980, 1982a,b), provide detailed treatment of specific aspects of the semantics and pragmatics of tense in Turkish and observe many points that went unnoticed in previous studies. Adamović (1985) is an invaluable source for the historical development of Turkish verbal inflection. Finally, various properties of this topic have been concisely expressed in Kornfilt (1997).

The first generative morphosyntactic studies of the subject were taken up by Lees (1961, 1962, 1972, 1973), which is, to this day, the most comprehensive and formally sound analysis of the subject – although usually, it is either totally ignored, carefully circumvented or sadly misunderstood by some later work. George and Kornfilt (1981) were the first to observe the implications of verbal inflection in a general syntactic domain. And Erguvanlı-Taylan (1996) paved the way for the analysis presented here, by assuming the primacy of form over function and that function should be recovered from morphosyntactic form.

Recently there has been a much welcomed revival of interest in the morphosyntactic structure of the inflected verb in Turkish, among which Erdal (2000), Groat (1992), Orgun (1996), Tosun (1998), Good and Yu (2000) are among the ones I am familiar with. Moreover, a novel aspect of the topic came to light by Cinque (1999), concerning particular hierarchical ordering of Turkish tense, aspect, mood and modality as functional heads conforming to a universal hierarchical order.

I will specifically refer to some of these invaluable works in the course of the paper.

1.1 What is finite inflection?

Since this paper is on finite inflection, a working definition becomes necessary. Let us begin by observing the following inflected verb stem displaying the familiar affixes.

(1)									
a.	b.	c.	d.	e.	f.	g.	h.	i.	
verb	causative	causative	passive	abilitative	negative	possibili-	aurist	person	
root						tative			
yap	-tır	-t	-ıl	-a	-ma	-yabil	-ir	Ø	
	'It may not possibly made to be done.'								

It has been observed for a long time in Turkish linguistics that derivation introduces either lexically or syntactically a number of functional affixes in a specified order, as in (1), above. The lexical and syntactic properties of these processes have been the subject of much detailed work, among which, Underhill (1964), Lees (1973), Sebüktekin (1974), Aissen (1974), Babby (1981) and Sezer (1991) may be counted. Particularly important is Aissen's (1974) observation for Turkish that the specific order of derivational affixes on the Turkish verb reflect the order of specific syntactic operations (transformations) that introduce them, which was later developed into the mirror principle of Baker (1985). Many obscure aspects of modality have been illuminated by Savaşır (1986), Kerslake (1996) and Cinque (1999).

But there is no clear-cut dividing line between derivation and the inflection of the finite verb in Turkish, especially in frameworks that do all verbal morphology in syntax, such as Baker (1985). Therefore, how inflection is to be separated from the verbal derivation of the extended stem is not at all clear. In

traditional Turkish grammars, on the other hand, usually that part of the verb that may be a complement to the infinitive affix *-mek* is considered to belong to derivation and the rest to inflection. This is quite an insightful distinction that leaves out of derivation, typically tense and agreement. I will accept this distinction here and take inflection to be the representation of tense and agreement on a verbal stem, in other words the INFL of principles and parameters framework of Chomsky (1981).¹ I will also refer to inflection as “inflectional complex” and “finite verbal inflection”.

More specifically, I will be concerned with seeking answers to the following questions.

- (2) a. What are the smallest elements of the finite verbal inflection in Turkish?
- b. How are these elements to be characterized in terms of category and function?
- c. What are the general structural and semantic properties of the finite verbal inflectional complex?
- d. What, if any, are the specific morphosyntactic well-formedness constraints on such inflectional complexes?
- e. What if any, are the semantic well-formedness constraints on inflectional complexes?
- f. How are these to be accounted for within an internally, explicit theoretical framework?

2. Basic properties and theoretical assumptions

In this section, I will outline the general morphosyntactic properties of tense agreement and the theoretical assumptions I will follow.

The verb stem, which may contain some level of derivational complexity shown in (1a–i), above, is followed by a number of inflectional affixes and/or clitics that appear in a predictable order.

- (3) a. Verb stem -Tense1 -Tense2 -Tense3 -Agreement
- b.

gid	-ecek	-miş	-se	-m
go	-FUT	-INFER.PAST	-IND.COND	-1SG

‘If it is the case that they say I will/would go...’

I shall initially refer to these forms as Tense1, Tense2 and Tense3. The morphological nature of these forms is quite important, and I will return to these issues

further below. For now, simply observe the following, which indicates the inflectional affixes that participate in the inflectional complex. The functions given in italics are to identify their general properties and not to exhaust the variety of functions these affixes may be associated with. I will return to the semantic properties of the affixes shortly.

- (4) a. Tense1 forms
 -DI definite witnessed past; -sE subjunctive conditional; -mİş inferential past/present perfect; -Iyor continuous; -yEcEG future; -Ir/-Er aorist; -yE opt/subj; -mEli necessitative; -mEkte continuous
- b. Tense2 forms
 i-DI/-(y)DI definite witnessed past; i-sE/-(y)sE indicative conditional; i-mİş/-(y)mİş inferential.
- c. Tense3 forms
 i-sE/-(y)sE indicative conditional; i-mİş/-(y)mİş inferential

I will assume that the Tense1 forms are morphosyntactically simple, although some of these are historically derived.² Notice also, that I consider Tense1, Tense2 and Tense3 as categories of forms (suffixes or clitics) which have to appear in a hierarchical order given above. We will also see later that Tense2 and Tense3 are morphosyntactically complex forms in predictable ways, and that this is crucial, as well as controversial.

To be grammatically well formed, a finite verb must minimally contain a main tense, Tense1 above, and agreement in that order, a requirement observed by Turkic languages in general. It follows from this that agreement must always head a Tense affix — a seemingly trivial but important condition duly observed by Deny (1921), Lees (1962, 1972) and recently by Groat (1992), Erguvanlı-Taylan (1996) and Tosun (1998). We will see the implications of this later. The compulsory Tense1 is necessarily one of the affixes given under Tense1 in (4), above.³

Second, in line with Enç (1987), I use the term tense to refer to a syntactic category, much like a noun, verb, etc., the members of which have lexical descriptive content.⁴ In fact we will see later that the tense forms are divided into subcategories that are distinguished with respect to the morphosyntactic characteristics [\pm Finite], [\pm Nominal]. It is important that they are not considered as purely functional categories.⁵ In the present analysis, the category Tense contains affixes (or clitics) which may indicate tense, aspect or mood, or some combination of these, in the general semantic sense these terms are used — again, something that is observed by many. Notice for example among the

Tense1 affixes, *-Iyor* indicates continuous aspect; the future *-yEcEG* is a typical example of tense, the optative subjunctive *-yE* and the conditional *-sE* are typically characterized as mood. This is implicit in traditional grammars, quite explicit in Lees's work, as well as in some recent studies of the subject, but its full implications have not been so clear to most. What follows from such observations is that tense, aspect, mood are not morphosyntactic, but exclusively semantic characteristics, possibly features, and they do not figure in the morphosyntactic representation of the finite inflectional complex.⁶

We will see additionally that the semantic content of the tense affixes is crucially relevant in determining further the well formedness of the inflected verb. In other words, a formally well-formed inflection may be ruled out on semantic incompatibility, given the possible meanings associated with individual tense affixes. This indicates that the set of well-formed inflectional complexes is actually a subset of the inflectional complexes allowed by formal configurations. Finally, I will consider agreement and its peculiarities in Section 2, below.

2.1 The complex tense forms

Notice in (4), above, that some Tense1 and Tense2 forms are quite similar. It is as if the three Tense1 forms, *-DI*, *-mIş* and *-sE* have their matching Tense2 forms, *idi*, *imiş* and *ise*, respectively. Let us observe some of the properties of these forms in (5), below.

(5)	Tense1	Function	Tense2 particle	Tense2 clitic	Function
	-DI	witnessed past ⁷ / present perfect	i-DI	-y-DI	witnessed past
	-mIş	inferential past/ present perfect	i-mIş	-y-mIş	inferential
	-sE	subjunctive condi- tional	i-sE	-y-sE	indicative con- ditional

I will argue (a) that these two sets of Tense forms are semantically distinct in crucial ways; (b) that this distinction correlates with morphosyntactic form; (c) that the semantic differences do not correlate with scope or relative positioning of the forms in question; and (d) consequently the Tense1 and Tense2 forms are semantically and syntactically distinct.

Let me begin with the formal differences between the two forms. First, the initial *i-* of the particle forms of the Tense2 goes back to a defective verb *i-* in Old Anatolian. Other Turkic languages had this verb in the form of *-ir/-er*. This auxiliary, mostly identified as a “copula”, exists only as a host to a small set of suffixes.⁸ It has no existence outside a total of four such forms; for example, no other Tense1 affix in (4), above, may combine with this auxiliary to form such complex affixes. The following are ungrammatical.

- (6) a. *hasta i -yecek -sin
 sick AUX -FUT -2SG
 ‘You will be sick.’
 b. *gid -iyor i -meli -yim
 go -CONT AUX -NECESS -1SG
 ‘I must be going.’
 c. *git -miş i -ye -yim.
 go -INF.PAST1 AUX -OPT.SUBJ -1SG
 ‘May I be gone.’

The affixal/clitic forms in (6), above, have developed from the independent forms by the initial *i-* becoming *y-*. The initial *y-* that develops this way falls together with all suffix-initial vowels and deletes regularly after a stem-final consonant.⁹ The forms in (7a), below, are formed with the separate particle forms of Tense2 and (b) are formed with the affixal forms.¹⁰

- | | |
|---|---|
| <p>(7) a. 0al -acák i -di
 buy -FUT AUX -PAST2.3SG
 ‘He was going to buy.’
 ‘He should have bought.’
 al -acák i -miş
 al -FUT AUX -INF.PAST2.3SG
 ‘It turns out they were going
 to/they will buy.’
 hastá i -se
 sick AUX -IND.COND.3SG
 ‘If he is sick.’</p> | <p>b. al -acák -tı
 buy -FUT -PAST2.3SG
 ‘He was going to buy.’
 ‘He should have bought.’
 al -acák -mış
 buy -FUT -INF.PAST2.3SG
 ‘It turns out they were going
 to/they will buy.’
 hastá -y -sa
 sick -AUX -IND.COND.3SG
 ‘If he is sick.’</p> |
|---|---|

Notice in (7b), above, with no part of the auxiliary overtly present, the Tense2 forms are characteristically distinguished as prestressing.

Consider additionally the following, which contain a Tense2 and a Tense3.

- (8) a. iste -yecék -ti -yse -n
 request -FUT -PAST2 -IND.COND -2SG
 ‘If you were going to ask for it...’
 b. sor -malí -ymış -sa -k
 ask -NECES -INF.PAST2 -IND.COND -1PL
 ‘If we ought to have asked...’

Notice in (8a,b), above, the three consecutive tense suffixes.

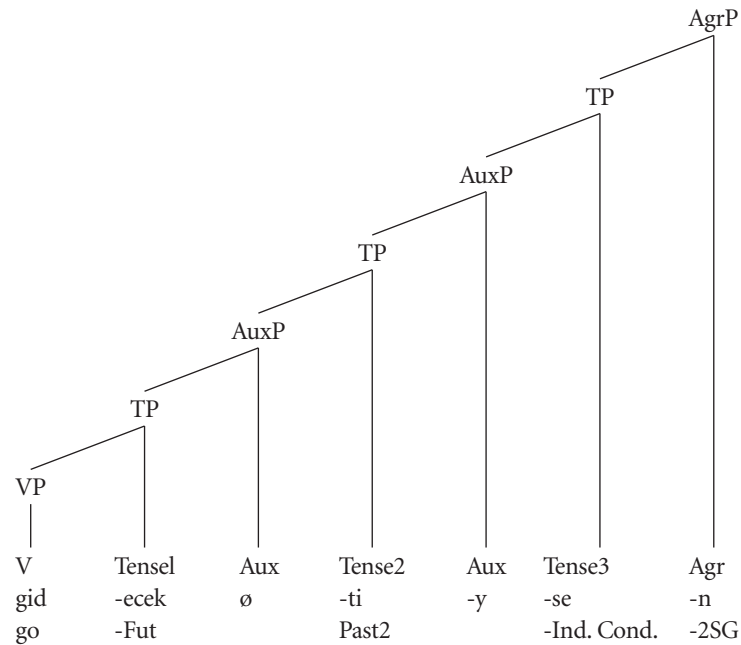
In summary, a Tense1 affix selected from among a set of affixes takes a full verb as its complement. A Tense2 and Tense3 form may follow this form. Notice also that Tense2 and Tense3 affixes may only be construed with the defective auxiliary stem *-i-*, or its cliticized form *-y-*. What this entails is that in Turkish, a tense affix may not directly be hosted by another tense affix, a fact observed of Lees (1962, 1972). Actually, there is a strict limitation on what Tense affixes may head; I will formulate this morphosyntactic constraint explicitly as (9), below.

- (9) a. Tense affixes in Turkish may only head a verbal stem [+V, −N].
 b. The auxiliary form *i-* is [+V, −N].

Notice that (9) is not sufficient to formally distinguish between Tense forms that attach to full verbs and the limited set that attaches to the auxiliary *i-*. I will return to this issue later on.

In (10), following Brendemoen and Csato (1986), I assume that in Turkish the S is headed by an Agr Phrase. With Groat (1992) and Tosun (1998), I am assuming the split Infl hypothesis of Pollock (1989) for Turkish, whereby, Tense and Agr are separate syntactic categories that form their own maximal projections.¹¹ Additionally, with Groat (1992), I am assuming an *AUXP*, a maximal projection of the auxiliary *i-*. Finally, I will argue below that each head in (10) takes a complement with which it shares morphological features.

(10)



2.2 The adverbial clitic *-(y)ken*

Turkish has the form *i-ken/-y-ken* ‘while’ that functions as an adverbial complementizer. Its formation is analogous to the Tense2 forms discussed above.¹² It contains the auxiliary *i-* and the Turkic Tense1 affix *-GEn*, which is no more a tense affix in modern Turkish. Unlike the other *i-*+Tense forms, *i-ken/-y-ken* forms do not take person agreement but share some morphosyntactic properties of the other Tense2 forms. First note in (11), that unlike other deverbal adverbial forms in (12), a verbal stem without tense may not host *-yken*.

- (11) a. **git-ken*
 ‘while going...’
 b. **ye-yken*
 ‘while eating...’
- (12) a. *ben gid -ince*
 I go -ADV
 ‘When I go...’
 b. *oku -yarak*
 read -ADV
 ‘By reading...’

The form *-iken/-yken* may only be attached to Tense1 forms.¹³ Observe below.

- (13) a. *gel -ir -ken ekmek al.*
 come -AOR -while bread buy
 ‘Buy bread when coming/on the way back.’
- b. *Yol -da gid -iyor -ken düş -müş*
 road- LOC go -CONT -while fall -INF.PAST1.3SG
 ‘They say he fell when he was going on the road.’
- c. *Ev -e gid -ecek -ken bar -a git -ti -m.*
 home -DAT go -FUT -while bar -DAT go -PAST1 -1SG
 ‘I went to the bar, when I was supposed to go home.’
- d. *Kalk -mış -ken bir su ver*
 rise -INF.PAST1 -while a water give.2SG
 ‘While you are up (have risen), give me a [glass of] water.’

It can head nonverbal predicates, however, like the Tense2 forms.

- (14) a. *hastá-yken*
 ‘while sick’
- b. *yók-ken*
 ‘while not present’

The persistence of the specific morphosyntactic properties of *i-ken/-yken* are peculiar to its formal category and not to its functional category as an adverbial complementizer, indicating in this case, that it is the morphosyntactic category and not function that determines its complement selection. I will return to the complement selection properties of this form in Section 2.5, below.

2.3 Semantic properties of selected tense forms

The objective of this section is not to provide a substantial semantic analysis of the tense forms, nor to review the rather comprehensive literature on the topic. See references already cited in Section 1. Rather, I will illustrate some of the general properties of the semantic content of the tense forms and their implications for a theory of Turkish inflection.

Tense1 *-DI* and Tense2 *-yDI*

The Tense1 *-DI* is definite past or present perfect and present with psychological verbs. Observe the following.

- (15) a. Dün saat beş-te gel-di-m.
yesterday clock five-LOC come-PAST1-1SG
'I arrived at five o'clock yesterday.'
- b. Yeni gel-di-m.
just arrive-PAST1-1SG
'I have just arrived.'
- c. Şimdi çok üzül-dü-m
now very sadden-PAST1-1SG
'I am very saddened now.'

In (15a) and (b), we have the definite past and the present perfect function of *-DI*, respectively. In (15c) we observe the present tense function of this suffix. With a number of finite verbs that indicate physical and psychological states, the unmarked reading of *-DI* is present.¹⁴ The past reading is usually enforced with past adverbs.

- (16) Dün ders-te çok acık-tı-m.
yesterday class-LOC very get hungry-PAST1-1SG
'Yesterday I was/got very hungry in class.'

The Tense2 *-yDI*, however, never has the present or the present perfect sense of Tense1 *-DI*. Observe below.

- (17) a. *Şu an-da çok aç-tı-m
this moment-LOC very hungry-PAST2-1SG
'I am very hungry now.'
- b. Dün akşam çok aç-tı-m
yesterday night very hungry-PAST2-1SG
'Last night I was very hungry.'

(17a) is ungrammatical, because the Tense2 suffix *-tı* (< *-yDI*) can only be interpreted as past and not as present or present perfect, and this is semantically inconsistent with the adverb *şu anda* 'at this moment'.

Second, recall that Tense1 *-miş* either indicates inferential past or present perfect. Observe below.

- (18) a. Dün gece çok iç-miş-im
yesterday night much drink-INF.PAST1-1SG
'(I realize that) I drank too much last night.'
(inferential, realizational after the fact)

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

But Tense2 *i-miş/-ymiş* is ambiguous between inferential past and simply inferential readings. Observe below.

- (19) a. Ali dün ev-de-ymiş
 Ali yesterday home-LOC-INF.PAST2.3SG
 ‘It turns out that Ali was at home yesterday.’
 b. Ali şu anda ev-de-ymiş
 Ali this moment home-LOC-INF.PAST2.3SG
 ‘It turns out that Ali is at home now.’
 c. Ali yarın ev-de-ymiş.
 Ali tomorrow home-LOC-INF.PAST2.3SG
 ‘It turns out Ali is/will be at home tomorrow.’
 d. Ali yarın gid-ecek-miş.
 Ali tomorrow go-FUT-INF.PAST2.3SG
 ‘It turns out Ali will leave tomorrow.’

In (19a), *-ymiş* is clearly past. In (19b–d) it is only inferential. We will see later that in (19b,c) there is an underlying Ø present Tense.

The specific semantic properties of these suffixes will help us identify some semantically ill-formed combinations. First, consider (20), below, in which the inferential Tense2 *-ymiş* follows the witnessed past *-DI*.

- (20) *git-ti-ymiş
 go-PAST1-INF.PAST2.3SG
 (No reading)

There is no semantically coherent reading for this form, given the semantic functions of the definite past or present perfect *-DI* and the necessarily inferential *-ymiş*. The verb+Tense1 form *git-ti* means ‘(S)he left’ with a certainty on the part of the speaker, which is denied by the inferential or quotative nature of the Tense2 *-(y)mış*.

The foregoing is a commonly observed fact in numerous studies on the topic, but its implications for the semantics of the tense forms in general have been ignored. If the Tense2 form *-ymiş* in (20), above, had a possible non-inferential reading, as does its corresponding Tense1 form *-miş*, then there might have been an acceptable reading for it. What rules out this form is the

semantic incompatibility caused by the necessarily inferential semantic characteristic of *-ymIş*, which distinguishes it from Tense1 *-mIş*.

Now notice, below, that the inferential Tense1 *-mIş* and the Tense2 past *-yDI* may combine in that order to form the past perfect.

- (21) yap-mış-ti-m
do-INF.PAST1-PAST2-1SG
'I had done it.'

Notice here that the Tense1 form *-mIş* does not mean inferential or quotative past, but only present perfect, followed by the exclusively past Tense2 *-yDI*.

The past perfect reading for this form, then, is due to the possible non-inferential reading of the Tense1 *-mIş*. Had this form been obligatorily inferential, as in the case of Tense2 *-ymIş*, we would expect the same semantic clash as in (20), above.

Notice below that the Past Tense1 and Past Tense2 also combine in that order to yield the past perfect.

- (22) yap-tı-ydı-m
do-PAST1-PAST2-1SG
'I had done (it).'

The difference between (21) and (22) is that the latter is geographically dialectal and somewhat substandard. Again (22) is necessarily past perfect and it does not have a possible present perfect reading, because the Tense2 *-yDI* is necessarily past and not present perfect.

As another relevant case, consider the complex tense form in (23), below.

- (23) yap-mış-mış-im
do-INF.PAST1-INF.PAST2-1SG
a. 'It turns out that I had done it.'
b. 'They say that others say that I did it.'

The two readings of (23) also follow from the possible readings of the forms involved. In the (23a) reading, the inferential Tense2, the second *-miş*, is past, thus rendering the past perfect sense. In the (23b) reading, the same Tense2 *-miş* is only inferential, thus simply adding a second inferential sense to the action denoted by the verb.

Finally, I will consider the difference between the Tense1 *-sE* and Tense2 *isE/-ysE*. This sharp distinction, which is duly observed in many studies in Turkish linguistics, seems to have eluded others. Deny (1921), carefully distin-

guishes between the two by calling the former “conditional” and the latter, “suppositional”. To illustrate this, he points out that while the former corresponds to the conditional verb in French, the latter corresponds to an *if*-clause with an indicative verb. Lees (1962) also separates the two by calling the *isE/-ysE* form “factive conditional”, and the Tense1 *-sE*, “counterfactual”. This distinction is a familiar one, studied by Adams (1970), among others. Also, drawing on earlier typological work on conditionals by Barker (1979), among others, Kuruoğlu (1986) distinguishes between “subjunctive” and “indicative” conditionals in Turkish. Consider below, two typical examples for illustrative purposes.

- (24) a. Subjunctive conditional
 Çamaşır-ı ben yıka-ma-sa-ydı-m, kim
 laundry-ACC I wash-NEG-SUBJ.COND-PAST2-1SG who
 yıka-yacak-tı?
 wash-FUT-PAST2.3SG
 ‘If I hadn’t washed the laundry, who would have washed it?’
 b. Indicative conditional
 Çamaşır-ı ben yıka-ma-dı-ysa-m, kim
 laundry-ACC I wash-NEG-PAST1-IND.COND-1SG who
 yıka-dı?
 wash-PAST1.3SG
 ‘If I didn’t wash the laundry, who washed (it)?’

Kuruoğlu (1986) also points out that indicative conditionals are contextually dependent. In Sezer (1998), I point out additionally, that Tense2 form *-ysE* means ‘if indeed.../if its true that.../if so...’ and it is discourse- or pragmatically conditioned. Lees’s (1972) term “factive conditional” implicitly refers to this reference to established facts. Consider the following.

- (25) a. Çarşı-ya gid-iyor-sa-n, haber ver.
 market-DAT go-CONT-IND.COND-2SG news give.2SG
 ‘If you are going shopping, let me know.’
 b. Hasta-ysa-n yat
 sick-IND.COND-2SG go.to.bed.2SG
 ‘If you are sick, go to bed.’
 c. Bugün çarşı -ya git-se-n, ne al-ır-dı-n?
 today market -DAT go-COND-2SG what buy-AOR-PAST2-2SG
 ‘What would you buy if you went/were to go to the market today?’

The two indicative conditionals in (25a,b), may not be uttered in out-of-the-blue situations, but the subjunctive conditional (25c) is bound by no such restriction.

Finally, observe below that the Tense3 forms, also construed with the copulative *i-*, may only represent indicative conditional readings.

- (26) a. Git-me-miş-ti-yse
go-NEG-INF.PAST1-PAST2-IND.COND.3SG
'If it is the case that (s)he indeed had not gone...'
b. Gel-ecek-miş-se
come-FUT-INF.PAST2-IND.COND.3SG
'If they say (s)he will come...'

In (26a,b) above, *-yse* is again discourse dependant and these sentences will be discourse-impaired if uttered in out-of-the-blue situations.

It is precisely because of the semantic property of the indicative conditional that this form may only head indicative tenses and it may not head the subjunctive conditional *-sE* or the optative/subjunctive *-yE*.

What follows from the foregoing is that the distribution and the major semantic characteristics of tense is determined by what hosts the particular tense form; that is, Tense1 forms hosted by full verbs are distinct in distribution and meaning from the Tense2 forms hosted by the auxiliary *i-*.

2.4 Compound tense forms and the auxiliary *ol-*

Continuing with the general semantics of the tense forms, I will in this section, look into the well-known cases where some tense forms may be complements to the verb *ol-* 'be, become', and see how their meanings are determined.

Recall that only three Tense2 forms may morphosyntactically follow Tense1 affixes. These are the only tense forms that may be hosted by the auxiliary *i-*. Turkish inflection circumvents this formal limitation by commissioning the verb *ol-* 'be, become' to function as part of the inflectional complex.¹⁵ This verb then may take all Tense1 forms.¹⁶ Consider the following.

- (27) a. var-mış ol-acağ-ız
arrive-INF.PAST1 be-FUT-1PL
'We will have arrived.'
b. çok iç-er ol-uyor-sun
much drink-AOR become-CONT-2SG
'You continuously/regularly become a heavy drinker.'
c. uyu-yor ol-malı-sınız
sleep-CONT be-NECES-2PL
'You must be sleeping.'

- d. bitir-miş ol-ur-sun
 finish-INF.PAST1 be-AOR-2SG
 ‘You’ll have finished.’

Recall initially that the second Tense on the inflected forms of (27a–d) are those that could not be hosted by the defective auxiliary *i-*. But since *ol-* is a complete verb, it can host all Tense1 affixes.¹⁷ Second, the auxiliary, *ol-*+Tense1 complex may host the familiar Tense2 forms *-yDI*, *-ymIş* and *-ysE*. Observe below.

- (28) a. var-mış ol-acak-tı-k
 arrive-INF.PAST1 be-FUT-PAST2-1PL
 ‘We would have arrived.’
 b. çok iç-er ol-uyor -muş-sun
 much drink-AOR become-CONT -INF.PAST2-2SG
 ‘They say you continuously/regularly become a heavy drinker.’
 c. uyu-yor ol-malı -ydı -nız
 sleep-CONT be-NECES -PAST2 -2PL
 ‘You must have been sleeping.’
 d. bitir-miş ol-ur -sa-n
 finish-INF.PAST1 be-AOR -IND.COND-2SG
 ‘If you’ll have finished...’

Thus *ol-*, displays the formal structure of the inflection of complete verbs with the Tense suffixes it hosts.

Now the semantics of the Tense1 forms on *ol-* are the predictable Tense1 readings and not of the Tense2 readings of these forms. Consider the following.

- (29) a. *Bu günler-de çok iç -er -di -m
 this days-LOC a.lot drink -AOR -PAST2 -1SG
 ‘I used to drink a lot these days.’
 b. Bu günler-de çok iç -er ol -du -m.
 this days-LOC a.lot drink -AOR become -PAST1 -1SG
 ‘These days I have become a habitual drinker.’

The difference between (29a,b) is striking, due to the semantic difference between Tense1 and Tense2 past in these sentences, respectively. Recall that only Tense1 has the possible present perfective reading, which renders (29b) compatible with the adverb *bu günlerde* ‘these days’, hence the grammaticality. In both cases the main Tense on the verb *iç* is aorist. In (29a) this is followed by the auxiliary *-y-* which is deleted by a phonological rule, and in (29b) the same aorist is followed by *ol-*, a full verb that takes Tense1 affixes. Clearly the sense of

the past *-DI* is not determined by its functional relation to the preceding aorist, but by the verb that hosts it.

Consider the preemptive adverb *bir defa*, which has the force of ‘what’s done is done’, ‘there’s no turning back now’, etc. This adverb can only be used with the present perfect Tense. Observe below.

- (30) a. *Dün git-ti-m *bir defa*.
 yesterday go-PAST1-1SG
 ‘I went (there) yesterday and there is no turning back.’
 b. Git-ti-m *bir defa*.
 go-PAST1-1SG
 ‘I have been there and I can’t undo that.’

In (30a), the adverb *dün* ‘yesterday’ enforces a definite past reading, which is not compatible with the intended reading of *bir defa*. Now observe the following.¹⁸

- (31) a. İç-miş-im *bir defa*
 drink-INF.PAST1-1SG
 ‘So I have drunk it. What can I say?’
 b. *İç-er-miş-im *bir defa*
 drink-AOR-INF.PAST2-1SG
 ‘They say I habitually drink. So what can I say?’
 c. İç-er ol-muş-um *bir defa*.
 drink-AOR become-INF.PAST1-1SG
 ‘I have become one who habitually drinks. So, what can I say?’

In (31a), the possible present perfect reading of Tense1 *-miş* is compatible with the preemptive adverb *bir defa*. The Tense2 *-miş* in (31b) is not present perfect, hence the ungrammaticality. Now in (31c), Tense1 *-muş* is present perfect, which is compatible with *bir defa*. Notice again in (31b) and (c) that the relative position of Tense1 *-miş* to the aorist is the same, but this is not what determines the meaning of *-miş* in these forms.

Finally let us consider comparable cases with the two conditional Tense affixes.

- (32) a. *Sen yap-ma-sa-n, kim yap-tı?
 you do-NEG-SUBJ.COND-2SG who do-PAST1
 b. Sen yap-ma-mış-sa-n, kim yap-mış?
 you do-NEG-INF.PAST1-IND.COND-2SG who do-INF.PAST1
 ‘If you haven’t done it, who has?’
 c. *Sen yap-ma-mış ol-sa-n, kim yap-tı?
 you do-NEG-INF.PAST1 become-SUBJ.COND-2SG who do-PAST1

In (32a–c) all of the conditional clauses (up to the comma) are independently grammatical. What makes (32a,c) ungrammatical is the main clause *kim yaptı*, which refers to a specific act that was committed. But the subjunctive conditionals in (32a,c) do not allow a factive reading that would make this reference possible, so they are semantically incoherent. The factive reference in the indicative conditional in (32b), however, gives a coherent reading with the main sentence, hence the grammaticality.

Again a comparison between (32b) and (c) shows that it is not the relative positioning of *-sa* with respect to *-miş* that determines its meaning but what its complement is. As we have seen in all of the cases in (29, 31, 32) semantic differences between Tense1 and Tense2 forms correlate with their complements. This is of course very clear from the nonverbal predicates that Tense2 forms take as complements with their predictable meanings. Observe below.

- (33) a. Hasta-y-dı-m.
sick-AUX-PAST2-1SG
'I was ill.'
- b. Hasta ol-du-m.
sick become-PAST1-1SG
'I got sick.'
- d. Hasta-y-mış-ım.
sick-AUX-INF.PAST2-1SG
'They say I was ill.'
'They say I am ill.'
- e. Hasta ol-muş-um
sick become-INF.PAST1-1SG
'I realize I got sick.'
- f. Hasta-y-sa-m
sick-AUX-IND.COND-1SG
'If I am ill...'
- g. Hasta ol-sa-m
sick be-SUBJ.COND-1SG
'If I were to become ill...'

Here the Tense1 and Tense2 forms are again semantically distinct and they may not mean what the other one means. Considering that in these cases there are no preceding tense affixes, these meanings cannot possibly be due to positioning with respect to another tense.

I will offer below a historical analysis of how the Tense2 forms may have been differentiated from Tense1 forms. To do this we have to consider the

semantics of the tense forms in Turkish in a different way. Let us assume that the semantic content of the tense forms are represented by a set of semantic features, as in the case of other lexical categories.¹⁹

Let us then look at a characterization of the meaning of the relevant tense forms in terms of features as a first approximation.

(34)	a.	b.	c.
	Tense1	-DI	-mİş
		[+Perfect,	[+Perfect,
		+Present]	+Present] ²⁰
		[+Past]	[+Past,
			+Inferential]
	Tense2	[+Past]	[+Inferential]
			[+Past,
			+Inferential]
			-sE
			[+Subjunctive]
			[+Subjunctive,
			+conditional]
			[+conditional]

Essentially, what (34) says is nothing new; these properties of these tense forms have been known and repeated in literature all along. But only when we look at them in terms of distinctive semantic features that we begin to see how things might have taken shape.

Let us assume that historically the Tense1 forms in (34) had the meaning they have today. Notice that all three of them are ambiguous, a property of lexical categories. The ambiguity of the first two forms is already discussed elsewhere and above, so I will leave them aside. The ambiguity of the conditional is not all that clear in all literature on tense. Observe the subjunctive use of the conditional below.

- (35) a. Acaba nere-ye git-se-m.
I.wonder where-DAT go-SUBJ.COND-1SG
'I wonder where I should go.'
- b. Kim-e sor-sa-m, bir cevap al-a-mı-yor-um.
who-DAT ask-SUBJ.COND-1SG an answer get-ABIL-NEG-CONT-1SG
'Whoever I ask, I can't get an answer.'
- c. Keşke ora-ya git-me-se-ydi-m.
I.wish there-DAT go-NEG-SUBJ.COND.-PAST2-1SG
'I wish I didn't go there.'

This gives support to the feature analysis in (34c). Assuming that [+Conditional] ordinarily designates the factive conditional, then subjunctive conditional is in fact a combination of the features [+Subjunctive] and [+Conditional].

If this analysis is correct, then the semantic differentiation of the Tense2 forms is quite straightforward. Notice in (34), that all of the Tense2 forms have differentiated by copying some semantic features of their sources, respectively.

There is, however, the formal aspect of the problem. With their differentiated meanings, Tense2 forms may only head the auxiliary *i-*, while Tense1 forms exclusively select full verbs as complements. I will consider this issue in some depth in the next section.

2.5 A feature-based analysis of Turkish tense

First, I will assume a checking theory similar to the one proposed by Chomsky (1995). According to this, morphosyntactic categories are identified by a set of morphosyntactic features selected from a universal vocabulary. These, in the present case, are, $\pm V$, $\pm N$ and $\pm F(\text{unctional})$.²¹ Second, all forms lexical or purely functional will carry two types of features. These are the head features that mark specific properties of a head, and the complement features that indicate the formal properties of the complements of a head.²² In line with Chomsky's (1995) full interpretation, I am assuming that in LF, only interpretable features will remain to avoid a crash that will rule out a particular form as ill-formed. To avoid this, all uninterpretable features must be deleted when checked within a local domain. A head checks its complement features against the head features of its complements.²³

Let me begin by making a formal distinction between the two types of verbs considered so far, by specifying their head features as follows.

- (36) a. Full verbs—that is, nondefective verbs, which have an infinitive form are $[+V, -N, -F]$.
 b. The defective auxiliary *i-* is $[+V, -N, +F]$.

What this says in effect is that, they are both verbs but the former is a nonfunctional category while the latter is.

There is yet another problem. As is well known and as I will discuss in detail, Tense1 and Tense2 forms behave homorganically with respect to the agreement paradigms they select; that is, *-DI* and *-sE* select a specific agreement paradigm and *-mİş* selects another, regardless of their semantic and formal distributional differences. Kornfilt (1996), observing this, states that Tense1 and Tense2 may not be considered morphosyntactically distinct affixes, because if they are, then this will imply that their common agreement properties are accidental.²⁴ Kornfilt's position is surely a legitimate one but there is a natural

explanation for it within the feature theory adopted here. Let us continue with our assumption that originally, *-DI*, *-sE* and *-mİş* were Tense1 affixes with following complement (CF) and head features (HF).

- (37) Tense1 forms
 -DI, *-sE*, *-mİş*
 CF [+V, -N, -F]
 HF [-X] [+X]

What (37) says, is that *-DI*, *-sE* and *-mİş* could only take full verbs as complements, as indicated by the complement features they share. But they had two distinct head features between them, [-X] for *-DI* and *-sE*, and [+X] for *-mİş*. Let us assume that [-X] insured a specific agreement paradigm selection for *-DI* and *-sE*, and [+X] insured another paradigm selection for *-mİş*. Now let us further assume that semantic differentiation for each Tense form in (37) is also accompanied by a change in the complement features, but not in their head features. So the resulting Tense2 series have the following morphological features.

- (38) Tense2 forms
 -DI, *-sE*, *-mİş*
 CF [+V, -N, +F]
 HF [-X] [+X]

According to this scenario, the formal change that accompanied the semantic differentiation of the two series is the complement feature -F becoming +F, with all the other features remaining intact. Let us explicitly state this in (29), below.

- (39) a. All Tense1 affixes carry the complement feature [+V, -N, -F].
 b. All Tense2 affixes, namely, *-DI*, *-sE* and *-mİş*, plus the affix *-ken* carry the complement features [+V, -N, +F].

Let us see how this predicts some of the cases we have seen so far.

- (40) a. *i -yecek
 CF [+V, -N, -F]
 HF [+V, -N, +F]
 ‘will be’
 b. *i -se
 CF [+V, -N, -F]
 HF [+V, -N, +F]
 ‘if it were’

- c. *ol- sa*
 CF [+V, -N, -F]
 HF [+V, -N, -F]
 ‘If it were to happen’

In (40a), the form will crash at LF, because the uninterpretable features will remain for not having been checked, hence the ungrammaticality. In (40b), the intended subjunctive conditional reading is not possible, because the complement features of the subjunctive conditional do not check the head features of the auxiliary *i-*. In (40c), on the other hand, the complement features of the subjunctive conditional check with the head features of the full verb *ol-* and the form survives in LF.

Let us now look at a more complex form in (41), below.

- (41) *gid -ecek i -di -y -se*
 CF [+V, -N, -F] [+T] [+V, -N, +F] [+T] [+V, -N, +F] [+T]
 HF [+V, -N, -F] [+T] [+V, -N, +F] [+T] [+V, -N, +F] [+T]
 ‘If he was going to go’

In (41), above, the head features identify the formal properties of the forms involved. So *gid-* is a full verb, *-yecek*, *-di* and *-se* are tenses, and *i-/y-* are auxiliaries, that is functional verbs. As for their complement features, *-ecek* always selects a full verb as complement, but the Tense2 forms *-di* and *-se* select functional verbs. The auxiliary selects a Tense, +T. The complement feature of all the heads matches the head features of the complements to their left, as expected. We will see later that the CF and HF specifications will have to be enriched to accommodate new facts. But before that, I will consider the different agreement paradigms and related phenomena.

3. Agreement paradigms and related issues

In this section I consider the tense forms and the types of agreement paradigms they select, and offer a very simple solution to the problem. I will discuss the conjugation types, the age-old distinction between the “true” and “participial” tenses, the participial tense forms of the embedded clauses, in that order. I will also consider in some depth Lees’s (1961), (1962) and (1972) suggestion that the finite verbs with participial tenses contain an underlying auxiliary and an additional tense and argue that this is not the correct way to proceed, because it involves a clear violation of economy principles.

A well-known fact by now is that the choice of the idiosyncratic agreement paradigm on the inflected verb crucially depends on the type of tense affix. The general distribution of the three paradigms is as follows.

- (42) a. The mixed paradigm heads only the optative subjunctive Tense *-yE*.
 b. The stressed paradigm heads only the Tense1 and Tense2 forms *-DI* and *-sE*.²⁵
 c. The clitic paradigm heads the rest of the tense affixes; namely, the future *-yEcEg*, inferential past *-mIş*, inferential Tense2 *-mIş*, the aorist *-Er/-Ir*, continuous *-Iyor*, continuous *-mEktE*, and the necessitative *-mEll*. It also heads the predicate nouns, adjectives and post-positions in the present tense.²⁶

Recall that verbal agreement necessarily heads a tense affix directly, so (42a–c), above, exhaust all the possible positions for the agreement forms in question here.

Putting aside the mixed paradigm, for the moment, I will illustrate the typical cases.

(43)	a.	b.	c.	d.
	Aorist 'I go', etc.	Future 'I will go', etc.	'Inferential' 'They say I went', etc.	Necessitative 'I ought to go', etc.
	gid-ér-im	gid-ecég-im	git-miş-im	git-melí-yim
	gid-ér-sin	gid-ecék-sin	git-miş-sin	git-melí-sin
	gid-ér-Ø	gid-ecék-Ø	git-miş-Ø	git-melí-Ø
	gid-ér-iz	gid-ecég-iz	git-miş-iz	git-melí-yiz
	gid-ér-siniz	gid-ecék-siniz	git-miş-siniz	git-melí-siniz
	gid-ér-ler	gid-ecék-ler	git-miş-ler	git-melí-ler
	gid-er-lér	gid-ecek-lér	git-miş-lér	git-meli-lér

Notice in (44) below that the same agreement paradigm heads nonverbal predicates.

(44)	a.	b.	c.	d.	e.
	'I am well', etc.		'I am a teacher', 'I am not', etc.		'I am present', 'I'm not present', etc.
	iyi-yim	öğretmén-im	değil-im	vár-im	yók-um
	iyi-sin	öğretmén-sin	değil-sin	vár-sin	yók-sun
	iyi-Ø	öğretmén-Ø	değil-Ø	vár-Ø	yók-Ø
	iyi-yiz	öğretmén-iz	değil-iz	vár-iz	yók-uz
	iyi-siniz	öğretmén-siniz	değil-siniz	vár-siniz	yók-sunuz
	iyi-ler	öğretmén-Ø	değil-ler	vár-lar	yók-lar
	iyi-lér	öğretmen-lér	değil-lér	var-lár	yok-lár

The two other tenses are headed by a different paradigm.

(45)	a.	b.
	Past I 'I bought', etc.	Subjunctive conditional 'If I were to buy', etc.
	al-dí-m	al-sá-m
	al-dí-n	al-sá-n
	al-dí-Ø	al-sá-Ø
	al-dí-k	al-sá-k
	al-dí-níz	al-sa-níz
	al-dí-lár	al-sa-lár

As the stress pattern indicates, the clitic paradigm affixes are prestressing, except for the 3^{PLURAL} *-lEr*, which is the nominal plural suffix that is ordinarily stressed. The unstressed *-lEr* forms may be due to analogy, as suggested by Kornfilt (1996). Support for this position comes from the fact that *-lEr* in the stressed paradigm, where all affixes are stressable, is ordinarily stressed unless there is a prestressing affix in the inflection complex.

The full forms of the clitic paradigm are as seen in (44a). Various general phonological rules apply to derive the other forms. The suffix initial *y-* in the first-person forms is universally deleted after a stem-final consonant.

Since the stressed paradigm exclusively follows *-DI* and *-sE*, both ending in a vowel, no special phonological rules are needed for this paradigm except for vowel harmony.

And notice finally in (46), below, that the Tense2 forms are headed by the same paradigm as their corresponding Tense1 form.

(46)	a.	b.	c.
	'I had come', etc.	'If I indeed arrived', etc.	'It turns out that if I indeed arrived', etc.
	gel-miş-ti-m	gel-miş-se-m	gel-sé-y-miş-im
	gel-miş-ti-n	gel-miş-se-n	gel-sé-y-miş-sin
	gel-miş-ti-Ø	gel-miş-se-Ø	gel-sé-y-miş-Ø
	gel-miş-ti-k	gel-miş-se-k	gel-sé-y-miş-I
	gel-miş-ti-niz	gel-miş-se-niz	gel-sé-y-miş-siniz
	gel-miş-ti-ler	gel-miş-se-ler	gel-sé-y-miş-ler
	gel-miş-lér-di	gel-miş-lér-se	gel-se-lér-miş

In (46a,b), above, the stressed paradigm is used, the one that heads exclusively *-DI* and *-sE*, although the Tense1 of these forms is *-mİş* which selects the clitic paradigm. In (46c) the clitic paradigm is used because the complement to the agreement paradigm is Tense2 *-miş*, although Tense1 in these forms is *-sE*, which requires the stressed paradigm.

Let us formulate this as an explicit condition.

- (47) The last (i.e. the highest) Tense determines the agreement paradigm.

The relevance of (47) will be apparent shortly.

The distinction between the two paradigms is claimed to have to do with the fact that there are essentially two sets of tense markers in Turkish. The so-called "true tenses", *-DI* and *-sE*, and the participial tenses, which constitute the set that is headed by the clitic paradigm. I will go into the history of this distinction in some detail, since there is a serious misunderstanding as to its origin in the current literature in Turkish linguistics.

This sharp distinction with this particular terminology is due to Lees (1962), (1972) and its implications are correctly evaluated by Dobrovolsky (1976). This claim finds independent support from the fact that forms such as *-yEcEg*, *-Er/-Ir*, *-mİş*, and *-Iyor*, become complements to some predicate expressions that normally head substantives.

This state of affairs was first observed systematically by Deny (1921:382), where he notes, "Mostly, the source of the conjugated verb forms in Turkish, as is evident from the way they look, is made up of nominal statements, having a

nominal form (a participle) as predicate, followed by an auxiliary (copula)". (My translation.). He goes on to compare these forms to,

- (48) French: je suis parti 'I left'
 German: ich bin gegangen 'I left'
 English: I am going

It is obvious from this comparison that Deny's (1921) term "verb substantive" represents an auxiliary.²⁷

Lees (1962, 1972), actually posits an underlying auxiliary ("copula", in his terms) and an additional underlying tense to all such forms as (43), (44) and (46c), above. I quote from Lees directly.

- (49) We adopt the quite reasonable view that the Preterite [-DI] and Conditional forms [-SE] are the only "true" tenses in Turkish, all other finite-verb forms being taken as Participles plus Copula forms.
 (Lees 1962:144)

More specifically, Lees claims that verbal forms such as *gönder-ecek-sin* 'You'll send (it)', actually derive from the underlying form *gönder+yecek+i+Tns+sin*. As for the Tense (Tns) posited here, he notes that,

- (50) [...] The tense appears to be non-past, non-conditional, and we can say that it is the 'architense' Present, a neutralization between aorist and momentary [Iyor]. (Lees 1962:68)

I will briefly explain here what Lees achieves by this, something that is not altogether transparent in recent work. He knows full well that a Tense affix always heads a verb, either a complete verb or an auxiliary/copula. And the auxiliary *i-*, is overtly present only when it hosts an overt tense affix and not otherwise. Finally, verbal agreement affixes ordinarily head a tense affix. So what Lees (1962, 1972) adds with this analysis to the inventory of lexical and grammatical forms is only the \emptyset present Tense affix and not a \emptyset copula. Therefore in Lees's framework, the predicate form in (51), below, will be derived as follows.

(51)	Underlying:	Adj	Auxiliary	Tense (Present)	-1sg
	Lexical insertion	hasta	i	- \emptyset	-yIm
	Aux deleted	hasta	\emptyset	- \emptyset	-yIm
	VH, etc.	hasta			-yim
		'I am sick.'			

Note crucially here that it is not the auxiliary (copula) *i-/Ø* that selects the correct agreement affix on the predicate adjective. In fact agreement does not head the auxiliary, which is a verb. What exclusively selects the clitic agreement paradigm is the \emptyset present tense affix. Lees (1962, 1972) was very much concerned in maintaining the head complement relations in the inflectional complex.²⁸

This analysis is problematic in one very important respect, and that is what to do with the extra tense in the finite verbal forms. This is initially noticed by Deny (1921:419), as he points out that the clitic paradigm is used with two functions: (a) as the present of the *i-* Auxiliary (his substantive verb) and (b) as personal agreement. In the first case, it indicates tense (present), mood (indicative) and person, as in (51a), below. In the latter case, it simply indicates the person on six tense forms, as in (51b).

- (52) a. Hasta-y-ım.
sick-AUX-1SG
'I am sick.'
- b. Sen gid-ecek-sin
you go-FUT-2SG
'You will go.'

What Deny is saying in effect is that we understand (52a), but not (52b), in the present tense. In other words, there is no present tense interpretation for (52b) in LF. Lees (1962) also notices this and notes that at some point in the derivation, the present tense in such forms as (52b) must neutralize.

I claim, following Deny (1921), that forms like (51) and (52a) *do* contain an underlying auxiliary and a \emptyset present Tense, but those like (52b) do not. On the plus side, this will save us the uneconomical strategy of introducing an auxiliary and tense in (52b) with no LF representation. Second note that (52b) upholds the basic principles of the inflectional complex. It contains the minimal requirement of Tense1 and agreement, to which Tense is complement. In (51) and (52a), above, the present Tense \emptyset is the complement to agreement.²⁹

This analysis has one apparent drawback that needs to be discussed. Observe below.

- (53) a. gid-ecek mi- \emptyset - \emptyset -sin
b. gid -ecek mi -sin
go -FUT Q AUX PRES -2SG
'Will you go?'

In (53a), which is Lees's representation of such forms, the agreement clitic *-sin* is directly hosted by the present tense affix \emptyset , as expected. In, (53b), which is the position I am adopting here, the agreement clitic is directly hosted by the question clitic *mI*, and not by a tense.

Given the obvious LF problems created by (53a), I believe we have to select (53b) as the representation of such forms. This will force us to accept the reality that not all agreement forms are directly hosted by tense affixes. The question that remains is: What selects the clitic agreement form *-sin* in (53b)? The answer is: It is the future tense affix *-ecek*. I will return to this, once I establish the relevant features of tenses and agreement affixes.

Two questions we need to address in this context are the following.

- (54) a. How do native speakers know which agreement paradigm goes with which tense?
- b. How is this knowledge formally represented?

These questions are implicitly addressed with vague references to participial and true tense distinction from Deny (1921) on, but formalism has never been attempted. In order to do this, I need to take an excursus on the types of tenses in Turkish.

3.1 Excursus on types of tenses

We have seen already that *ol-* may be predicated on a number of the so-called "participial tense" forms. In this section, I will consider few other expressions, such as, *değil* 'not', *gibi* 'like', *-yken* 'while', *-yE benziyor* 'look like...' that may take the participial tenses *-Iyor*, *-yEcEg*, *-Er/-Ir*, *-mIş* and *-mEktE*, just as they felicitously head predicate substantives and postpositions. First observe, below, that as predicted by many, the so-called "true tense" forms may not be headed by the expressions in question here.³⁰

- (55) a. *git-ti değil-im
 go-PAST1 is.not-1SG
 'It is not that I went.'
- b. *git-se ol-du-m
 go-SUBJ.COND become-PAST1-1SG
 (No reading)
- c. *bak-a gibi-sin
 look-DAT like-2SG
 (No reading)

- d. *ye-di-y-ken
eat-PAST1-AUX-while
'While he ate.'
- e. *git-ti-ye benzi-yor
go-PAST1-DAT resemble-CONT.3SG
'He looks like (he) went.'

As for the so-called "participial tenses", not all of them may felicitously appear with all such predicative forms. There are restrictions that need to be studied in depth. I am proceeding with the assumption, as more or less everyone else before me, that the infelicitous forms that arise are due to semantic (tense and aspect) incompatibilities. Therefore, the examples I am providing here mostly have illustrative value.³¹

In (56), below, *değil* is predicated on the participial tense forms.³²

- (56) Sen bar-a git-me-z değil-sin.
you bar-DAT go-NEG-AOR is.not-2SG
'It is not that you don't go to a bar.'
- (57) a. Çok eğlen-iyor gibi-sin
a.lot fun.have-CONT like-2SG
'It's like you are having a lot of fun.'
- b. Hiç çalış-ma-mış gibi-y-di.
none work-NEG-INF.PAST1 like-AUX-PAST2.3SG
'It was like he/she had not worked at all.'

The clitic form *-yken*, already discussed in Section 1.2, is an adverbial complementizer clitic that may take as complement the participial tense group.

One apparent problem is with the necessitative *-meli*, which takes the clitic agreement but it does not allow any of the predicate expressions under consideration. Observe below.

- (58) a. *Git-meli ol-acağ-ız
go-NECESS be-FUT-1PL
'We will have to go.'
- b. *On-un-la konuş-malı değil-sin.
he-GEN-COM talk-NECESS not-2SG
'You need not talk to him.'

Possibly these predicative expressions require an indicative reading on their complements, and that *-meli* is nonindicative in Modern standard Turkish; therefore, it is incompatible with such expressions. If this assumption is correct

then the restriction in question has to do with mood, that is semantics in the present framework.³³

As observed by Deny (1921), the expression *-yE benziyor/benzer* is quite restricted. It may only be used with *-yEcEG* and *-mİş* productively and with *-Iyor*, in a rather limited fashion. Observe below.

- (59) a. *uyu-yor-a benzi-yor*
 sleep-CONT-DAT resemble-CONT.3SG
 ‘He looks like he is sleeping.’
 b. *Dün gece çok iç-miş-e benze-r-sin*
 yesterday night a.lot drink-INF.PAST1-DAT resemble-AOR-2SG
 ‘You look like you drank a lot last night.’
 c. *Az sonra yat-acağ-a benzi-yor-sun*
 a.little later go.to.bed-FUT-DAT resemble-CONT-2SG
 ‘You look like you will go to bed a little later.’

Notice interestingly, that the tense forms in (59) are in the dative case. This is because the verb *benzemek* ‘to resemble’ takes dative complements.

- (60) *Sen baba-n-a benzi-yor-sun*
 you father-2SG-DAT resemble-CONT-2SG
 ‘You look like your father.’

This is what is behind the distinction between participial tenses, in that they behave like substantives. But how this is going to translate into a descriptively adequate analysis has never been made clear. Additionally, consider below the participial tense forms that regularly appear on the embedded clause verb.

- (61) a. [*Ayşe’nin çok oku-duğ-u*] *bil-in-iyor.*
 Ayşe-GEN a.lot read-PART-3SG know-PASS-CONT.3SG
 ‘It is known that Ayşe reads a lot.’
 b. [*Sen-in Amerika’ya gid-eceğ-in-i*] *söylü-yor-lar.*
 you-GEN America-DAT go-PART-2SG-ACC say-CONT-3PL
 ‘They say that you will go to America.’
 d. [*Ben-im gel-en-im, gid-en-im*] *çok ol-ur.*
 I-GEN come-PART-1SG go-PART-1SG many be-AOR-3SG
 ‘There are a lot of people who visit me.’
 Literally: ‘Very many are my comers and goers.’
 e. *Ben [on-un konuş-ma-sın-a] sinir ol-uyor-um.*
 I he-GEN talk-VN-3SG-DAT crazy.be-CONT-1SG
 ‘I go crazy at his talking.’

In (61) we have the nonfinite substantive forms of the embedded verb followed by the possessive agreement paradigm which also marks possessive phrases. The possessive paradigm is the following.

(62)	benim	ev-im
	senin	ev-in
	onun	ev-i
	bizim	ev-imiz
	sizin	ev-iniz
	onların	ev-ler-i

As is well known (62) is a different agreement paradigm than the other three we have seen.

Notice crucially that the participle forms with, *-DIG*, *-yEn* and *-yECEG* are actually tense forms. The first two are nonfuture and the last exclusively future. So given these facts, how are we going to distinguish formally between all of the tense forms in Turkish?

The answer to this question is quite straightforward. They can be classified in terms of the two features $[\pm\text{Finite}]$ and $[\pm\text{Nominal}]$.

(63) The head features of Tense affixes

	True Tenses <i>-DI</i> , <i>-sE</i>	Participial Tenses <i>-Iyor</i> , <i>-yEcEG</i> , \emptyset present, etc.	Participles, VN <i>-DIG</i> , <i>-yEn</i> , <i>-yEcEG</i> <i>-mE</i>
$\pm\text{Fi(nite)}$	+	+	–
$\pm\text{Nominal}$	–	+	+

Now the complement features of the different agreement paradigms are also distinguished along the same two parameters. Observe below.

(64) The complement features of the agreement paradigms

	Stressed paradigm	Clitic paradigm	Possessive paradigm
$\pm\text{Fi(nite)}$	+	+	–
$\pm\text{Nominal}$	–	+	+

With respect to \pm Finite and \pm Nominal features, tenses pattern exactly with the agreement paradigms.³⁴ So the selection of the correct agreement paradigm is quite straightforwardly handled in a checking theory of Chomsky (1995). As outlined above (section 2.5), all uninterpretable features must be checked and eliminated at LF. Therefore, in inflectional forms, if the [\pm Finite] and [\pm Nominal] features of the agreement and that of the tense match, then they are eliminated, and the form goes into LF with no uninterpretable features. If they do not check, then they are not eliminated and the derivation crashes at LF for carrying uninterpretable features. Observe some examples below.

- (65) a. *git -tí- yim
 CF: [+Fin, +N]
 HF [+Fin, -N]
 go -PAST1 1SG
 'I went.'
- b. *gel -ecek -in
 CF [+Fin, -N]
 HF [+Fin, +N]
 come -FUT 2SG
 'You will come.'
- c. *Sen-in gid -ecek -sin
 CF: [+Fin, +N]
 HF [-Fin, +N]
 you-GEN go -FUT -2SG
 'That you will go.'
- d. Sen-in gid -eceğ -in
 CF: [-Fin, +N]
 HF: [-Fin, +N]
 you-GEN go -FUT -2SG
 'That you will go.'

Notice that this analysis requires that the \emptyset present Tense is specified as [+Fin, +N].

- (66) hasta \emptyset \emptyset -sin
 CF: [+Fin, +N]
 HF: [+Fin, +N]
 sick AUX present 2SG
 'You are sick.'

As for the predicative forms on the tensed verbs, let us also assume that *değil*, *ol-*, *gibi*, *-yken* and *benze-* all carry the complement feature [+N]. This will insure that such predicative expressions will not crash at LF when they select the [+N]. This is somewhat more complicated but it can be worked out along the same lines.³⁵

3.2 *mI* cliticization and the agreement paradigms

A well-known fact is that the yes/no question clitic interacts with the two agreement paradigms differently. Normally, it precedes the clitic agreement paradigm but follows the stressed paradigm. Observe below.

(67) With the clitic paradigm

a.	b.
Pres. Cont. 'Am I taking', etc.	Pres. Cont. 'Am I taking', etc.
al-ıyor mu -yum	*al-ıyor-um mu
al-ıyor mu -sun	*al-ıyor-sun mu
al-ıyor mu	*al-ıyor mu
al-ıyor mu -yuz	*al-ıyor-uz mu
al-ıyor mu -sunuz	*al-ıyor-sunuz mu
*al-ıyor mu -lar	al-ıyor-lar mı

Other Tense1+clitic agreement forms behave the same way.

(68) With the stressed paradigm

a.	b.
Simple past 'Did I go', etc.	Simple past 'Did I go', etc.
git-ti-m mi	*git-ti mi -m
git-ti-n mi	*git-ti mi -n
git-ti mi	*git-ti mi
git-ti-k mi	*git-ti mi -k
git-ti-niz mi	*git-ti mi -niz
git-ti-ler mi	*git-ti mi -ler

Other Tense1+stressed paradigm forms behave the same way.

The more general principle that regulates the position of the question clitic *mI* appears to be the following.

- (69) In an inflectional complex, *mI* must immediately precede an auxiliary/copula if there is one. Otherwise *mI* appears at the end of the inflectional complex.

This now also predicts the following, with the stressed paradigm where *mI* is not final. Observe below.

- | | | | |
|------|----------------------------|----------------------------|-----------------------------|
| (70) | a. | b. | c. |
| | 'Had I gone', etc. | 'Had I gone', etc. | 'Had I gone', etc. |
| | git-ti <i>mi</i> -y-di-m | *git-ti-y-di-m <i>mi</i> | *git-ti-y-di <i>mi</i> -m |
| | git-ti <i>mi</i> -y-di-n | *git-ti-y-di-n <i>mi</i> | *git-ti-y-di- <i>mi</i> -n |
| | git-ti <i>mi</i> -y-di | *git-ti-y-di-Ø <i>mi</i> | git-ti-y-di <i>mi</i> |
| | git-ti <i>mi</i> -y-di-k | *git-ti-y-di-k <i>mi</i> | *git-ti-y-di <i>mi</i> -k |
| | git-ti <i>mi</i> -y-di-niz | *git-ti-y-di-niz <i>mi</i> | *git-ti-y-di <i>mi</i> -niz |
| | git-ti <i>mi</i> -y-di-ler | *git-ti-y-di-ler <i>mi</i> | *git-ti-y-di <i>mi</i> -ler |
| | git-ti-ler <i>mi</i> -y-di | *git-ti-ler-Ø-di <i>mi</i> | *git-ti-ler-Ø-di <i>mi</i> |

Notice that in the ungrammatical forms (70b,c), *mI* does not immediately precede the auxiliary *-y-*, whereas in (70a) it does, although in this case the auxiliary is not the one that hosts the clitic agreement but the affix of the "true tense" paradigm.

Now in a theory that requires that participial tense forms are regularly followed by an additional auxiliary and the present tense, such as Lees (1961, 1962, 1963) and Kornfilt (1966), things get more complicated. Observe below in (71) that *mI* cannot appear to the immediate left of the clitic agreement forms, as was the case in (67), above.

- | | |
|-----------------------------------|------------------------------------|
| (71) b. | c. |
| see-FUT Q-INF-Agr | see-FUT-INF Q-Agr |
| ‘Do they say I will see’, etc. | ‘Do they say I will see’, etc. |
| gör-ecek mi -y-miş-Ø-im | *gör-ecek-Ø-miş mi -Ø-yim |
| gör-ecek mi -y-miş-Ø-sin | *gör-ecek-Ø-miş mi -Ø-sin |
| gör-ecek mi -y-miş-Ø-Ø | *gör-ecek-Ø-miş mi -Ø-Ø |
| gör-ecek mi -y-miş-Ø-iz | *gör-ecek-Ø-miş mi -Ø-yiz |
| gör-ecek mi -y-miş-Ø-siniz | *gör-ecek-Ø-miş mi -Ø-siniz |
| gör-ecek mi -y-miş-Ø-ler | *gör-ecek-Ø-miş mi -Ø-ler |
| gör-ecek-ler mi -y-miş | *gör-ecek-ler-Ø-miş mi |

Therefore we need to revise (69), above, as (72), below.

- (72) In the finite inflection complex, the question clitic *mI* must be directly headed by the first (lowest) auxiliary/copula. Otherwise *mI* heads the agreement.

Observe below how (72) predicts the forms in (73).

- | | |
|---|---|
| (73) a. | b. |
| ‘Do they say I should have gone’,
etc. | ‘Do they say I should have gone’,
etc. |
| git-sé mi -y-miş-im | *git-sé-y-miş mi -Ø-yim |
| git-sé mi -y-miş-sin | *git-sé-y-miş mi -Ø-sin |
| git-sé mi -y-miş-Ø | *git-sé-y-miş mi -Ø-Ø |
| git-sé mi -y-miş-iz | *git-sé-y-miş mi -Ø-yiz |
| git-sé mi -y-miş-siniz | *git-sé-y-miş mi -Ø-siniz |
| git-sé mi -y-miş-ler | *git-sé-y-miş mi -Ø-ler |
| git-se lér mi -y-miş | *git-se-lér-Ø-miş mi -Ø |

Again the forms in (73b) are ungrammatical although *mI* precedes the Ø-copula, a fact predicted by (72), above.

So the exclusive correlation between the Ø copula and the *mI* clitic is not correct. This fact is properly observed by Lees (1962, 1972) but not by some later work, among them Kornfilt (1996).

3.3 A clitic theory for Turkish

All analyses of the *mI*-cliticization inside the inflection complex have had to make various stipulations and refer to the clitics in one way or other.³⁶

I will assume here a very simple clitic theory.

- (74) a. Affixes and clitics are morphosyntactically distinguished.³⁷
 b. Affixes are exclusively hosted by their complements.
 c. Clitics may be hosted by forms other than their complements.
 d. Turkish inflectional clitics are the following,
 The auxiliary *i*-
 The agreement forms *-yIm*, *-sIn*, *-yIz*, *-sInIz*. (crucially not *-lEr*)
 The question form *mI*.
 e. *mI* may not be hosted by a clitic (base).
 (Where *clitic base* is by definition, an affix that heads a clitic.)
 f. The clitic agreement forms may not be hosts.
 g. Agreement features have to check with the last/highest tense form.

The principles (74a–c) may well be part of UG. But for (74c) a language-specific identification of forms that may host clitics will be necessary. (74d–f), on the other hand, are fully language-specific. Notice also in (74d) that cliticity is not necessarily a paradigm feature, since the plural *-lEr* is excluded from the list; we will see the consequences of this shortly. (74e) uniquely distinguishes *mI*. What it insures in effect is that *mI* has to be the first clitic in the inflectional complex. (74f) uniquely distinguishes the agreement clitics as the highest head in the inflectional complex. In other words *mI* has to be the first and clitic agreement forms must be the last wherever they occur; surely a language-specific constraint on clitics.

The checking theory assumed above, with the complement and head features assigned to the elements of the inflectional complex, and the clitic theory presented in (74), above, exclusively constitute all of the formal well-formedness conditions on the inflected forms considered; as such, they replace the special condition stipulated in (69) and (72), above. Let us now see how this works.

Recall the two positions *-lEr* appeared in the third plural of the forms with Tense2 in (46), above, repeated below.

- | | | | |
|------|----------------|----------------|------------------|
| (75) | a. | b. | c. |
| | gel-miş-ti-ler | gel-miş-se-ler | gel-sé-y-miş-ler |
| | gel-miş-lér-di | gel-miş-lér-se | gel-se-lér-miş |

This variation in the order of the clitic, the underlined forms in (75), and *-lEr* is not functional. In modern standard Turkish the lower form in each case is the standard, the upper ones are somewhat informal. Recall that *-lEr* is an affix, not a clitic; therefore it has to be hosted by its complement exclusively, as indicated in (74b). But in each case, there are two possible complements for *-lEr*; because *-lEr* belongs in both paradigms. In the lower forms, the clitics (which are underlined) are not hosted by their complements, something also sanctioned by (74c).

In the other persons, the variation in (75) above is not possible. Observe below.

- | | | | |
|------|---------------------------------|----------------------------------|------------------------------|
| (76) | a. | b. | c. |
| | ‘I had left.’ | ‘If you indeed went.’ | ‘It seems if we were to go.’ |
| | git-mış-ti- <u>m</u> | git-mış- <u>se</u> -n | git-sé-y- <u>miş</u> -iz |
| | *git-mış- <u>im</u> - <u>di</u> | *git-mış- <u>sin</u> - <u>se</u> | *git-se-k- <u>miş</u> |

In the ungrammatical forms in (76), (a,b) violate (74f), with the clitic agreement hosting *-di* and *-se*. If this form is taken as the stressed person affix then checking with *-miş* is violated. The ungrammatical form in (76c) violates (74f). Here the stressed person *-k* affix checks with *-se* but not with the highest Tense *-miş*.

Now let us look at another variation that involves other persons.

- | | | |
|------|--------------------|------------------------|
| (77) | a. | b. |
| | ‘I had left’, etc. | ‘I had left’, etc. |
| | git-ti-y-di-m | git-ti- <u>m</u> -di |
| | git-ti-y-di-n | git-ti- <u>n</u> -di |
| | git-ti-y-di | git-ti-Ø-y-di |
| | git-ti-y-di-k | git-ti- <u>k</u> -di |
| | git-ti-y-di-niz | git-ti- <u>niz</u> -di |

Notice here that nothing is violated in (74); crucially, the nonfinal stressed paradigm agreement affixes *do* check with the last/highest tense forms.

Next let us consider the variant order with the *mI* cliticization cases.

- | | | |
|------|----------------|------------------------|
| (78) | a. | b. |
| (67) | al-iyor-mu-yum | *al-iyor- <u>um</u> mu |
| | | ‘Am I buying’ |

- (68) git-ti-m mi *git-ti mi-**m** ‘Did I go?’
 (70) git-ti mi-y-dim *git-ti-y-**di-m** mi ‘Had I gone?’
 (71) gör-ecek- mi-y-miş-im *gör-ecek-**miş** mi-y-im ‘Will I supposedly see?’
 (73) git-se mi-y-miş-im *git-se-y-**miş** mi-yim ‘Do they say I should have gone?’

In (78), above, except (68b), all ungrammatical forms violate (74e), where *mI* is hosted by a clitic, printed in bold. In (67b), additionally, (74f) is violated. This is because of the partial overlap between (74e) and (f). In (68b), on the other hand, the stressed affix is not hosted by its complement, a violation of (74b).

Finally, consider (81), below, which is different from the cases we have seen so far.

- (79) *[[[[git] -ti] mi] -y**im**]
 V TP QP AgrP

Here the problem is the mismatch between the Tense1-*ti* and the clitic agreement -*yim*, but the two are not adjacent, which is not a violation. This will be taken care of by feature checking, when the V *git* moves to Tense and then to Q, to become the complement of -*yIm*. Then the +N Tense feature of -*yIm* will not check with the [-N] feature of *ti*, hence the crash at LF.

4. Concluding remarks

In this study, I made the various claims with varying degrees of rigor. The first of these is that the basic structure of the inflectional complex in Turkish is not functional. Such functional concepts as tense, aspect and mood do not play a role in determining the basic formal structure of the inflectional complex. Tense forms have descriptive content, which may include functional concepts again with descriptive content, such as \pm evidential, \pm inferential, etc., but most probably purely functional concepts, such as tense, aspect and mood are not among these. What is needed is a set of semantic features that can make it possible to describe the semantic content of the tense forms, which will hopefully make it possible to make sharp comparisons between them. I also made the claim that the full semantics of the inflectional complex may be read off compositionally from the individual meanings of the tense affixes, in some

fashion yet to be sharpened. In a much underrated study, Erguvanlı-Taylan (1986), takes the position that there is a formal structure to finite inflection, and functional make-up may be read off from it. This also implies that the function is essentially delimited by formal structure. I am in full agreement with Erguvanlı-Taylan in the primacy of form, but it remains to be seen as to how much of the semantics and pragmatics of tense in Turkish rest on functional notions of tense, aspect and mood, as she maintains, and how much of it is straight contentive semantics. Against this position is Cinque (1999) with the claim that there is a set of universally determined functional heads that project independently of the morphosyntactic form, presumably at a different level of representation. Certainly Turkish with its rich morphosyntax and already available essential analyses provide an arena where various theoretical positions may be put to test, a much welcome enterprise.

More specifically, I defended the position that the Tense2 affixes are formally and semantically differentiated from the corresponding Tense1 forms and that the semantics of these forms may not be inferred in any sensible way from their complements or from their location relative to another tense. Also the elements of finite inflection are in a head-complement relation and their felicity is based on a checking theory within the Minimalist Program of Chomsky (1995). Finally, a clitic theory is proposed to account for the well-formedness condition of the situations that are not covered by the checking theory.

One relevant area left out of this study is the so-called suspended affixation, which in most part mimics the facts covered in our clitic theory, as quite substantial work by Orgun (1996) and Good and Yu (2000) illustrate.

Notes

1. Notice crucially here that the terms “inflection” and “derivation” do not coincide with lexical and syntactic derivation, respectively.
2. For example *-Iyor* is converbial *-I* joined with the, now obsolete, verbal root *yori-* ‘to advance, rally’, etc.; the necessitative *-mEll* is transparently composed of the deverbal nominal *-mE* and the adjectival *-II*; *-mEkte* is made up of the infinitive *-mEk* and the locative *-DE*. The future *-yEcEG* is also a candidate for a derivationally complex form containing the converbial *-yE* and the future *-cEG*. The form *-mEktE* is formal for *-Iyor*, and there are various grammatical limitations on it, which will not be discussed in this paper.
3. This is a peculiarity that persists in all of the Turkic languages. Different affixes may be used for different functions but there is always a specific set of affixes which correspond to Tense1 that has to appear in a fixed position inside the inflected verb.

4. See also Partee (1973) for a comparison of tense forms to pronouns.
5. The clear-cut distinction between substantive and functional categories is not unproblematic. The lexical category status of tense I am assuming here needs to be sharpened, something I will not be able to accomplish presently.
6. This is not to say, by any means that Turkish does not allow functional categories such as the negative (NegP), and possibly others, but that Tense is not a fully functional category. This position is also tacitly assumed in classical grammars, as well as by Lees and more recently in Groat (1992) and Tosun (1998). Against this hypothesis is Cinque (1999), where tense aspect and mood are indeed functional categories that obey certain universal conditions. I will briefly return to these issues briefly further below.
7. I will not consider the fine details of the distinction between witnessed and unwitnessed aspect in Turkish. See for this Aksu-Koç (1988) and Slobin and A. Koç (1982).
8. Turkish grammars usually identify this verb as *i-mek fiili* 'the verb *i-mek*', citing it in the infinitive form. This copulative base, however, never had an infinitive, showing clearly that it was defective all along, but it was also used with participial suffixes. One such relic form in Modern Turkish is,
 - i. ne i -**düğ** -ü belirsiz,
 what is -PART -3SG unclear
 'It's not clear what it is.'
 'of unclear identity'
 where the participial suffix *-DIG* is hosted by the auxiliary *i-*. In Ottoman grammars, the form was identified as *fiil-i cevheri* or *cevher fiil* 'substantive verb', which is what Deny (1921) calls it. Lees (1961, 1962) and (1972), among others, also explicitly identify this as a copulative form. I will return to the specifics of this issue later.
9. Still the best and most consistent phonology of modern Turkish is by Lees (1961), where an exhaustive phonology of Turkish is worked out.
10. Since both the independent forms and the clitic forms are prestressing, a special rule is usually assumed to mark the remaining vowel of the clitic forms after the initial *i-* has become *y*. But if we consider cliticity a morphological characteristic, which marks the first vowel of the clitic as prestressing, then there is no need for a special rule.
11. Tosun (1998) also assumes, correctly, I believe, that TP has a specifier, which hosts adverbs. Nothing hinges on this assumption in this study.
12. Some Turkic languages, Uzbek for one, have a Tense1 form, *-GEN*, which also combines with the auxiliary *e-*, the counterpart of *i-* in modern Uzbek, to form the Tense2 inferential marker, *e-gen*. Also the form *e-mes* 'is not' is historically construed with the auxiliary *e-* and the negative aorist *-mes*. See Aminova and Sezer (in preparation) for a treatment of modern Uzbek inflection.
13. Unlike the Tense2 forms, *-iken/-yken* may not follow the past *-DI*, the subjunctive conditional *-sE*, the optative/subjunctive *-yE*, and the necessitative *-mEll*. These Tense1 forms constitute a natural class. I discuss this issue in Section 2.5, below.
14. These are properly observed by Yavaş (1980). The set includes verbs such as, *susa-mak* 'to get thirsty', *yorul-mak* 'to get tired'. Such verbs always indicate change of state; therefore,

these are best treated as some extension of the present perfect sense of *-DI*. Observe below that change-of-state cases are not compatible with durative adverbs, and stative forms are not compatible with adverbs that indicate change of state.

- i. *Üç gün-dür acık-tı-m
three day-DUR get.hungry-PAST1-1SG
'I got hungry for three days now.'
- ii. Birdenbire acık-tı-m.
suddenly get.hungry-PAST1-1SG
'Suddenly I got hungry.'
- iii. Üç gün-dür çok aç-ım.
three day-DUR very hungry-1SG
'I have been hungry for three days now.'
- iv. *Birdenbire aç-ım.
suddenly hungry-1SG
'Suddenly I am hungry.'

Vannebo (1979), as noted in Comrie (1985:20), mentions similar verbs in Norwegian, that are used in the past with a present sense, although the specific example given in Norwegian does mean present in Turkish. See Sezer (1998) for a list of such verbs in Turkish.

15. The category of this *ol-* is not all that clear. There are reasons to believe that it does not function as an auxiliary but as a verb that takes complements with semantic (aspectual) restrictions. I will not discuss this issue here. See Lees (1962, 1972, 1973) and Kerslake (1998) for discussion of various aspects of the auxiliary in Turkish.

16. This statement is not really correct, as there are various semantic (mainly aspectual) restrictions on the Tense1 forms that may be hosted by *ol-*. I will not go into these issues in this paper, but see Yavaş (1982) and Erguvanlı-Taylan (1996) for some discussion.

17. Consider Deny (1921) and Elöve (1941:465–469) for the basic meaning of such forms.

18. There are other meanings associated with this adverb, such as 'for once', 'give it a chance', etc. These sentences are ungrammatical with the intended preemptive reading of this adverb.

19. Actually, such an analysis may in the long run prove to be superior to the functional analyses based on concepts like tense, aspect and mood, as these approaches seem to yield dubious semantic results. Certainly a universal set of semantic features to characterize Tense has to be developed. What I am presenting here is nothing other than a heuristic.

20. Certainly there must be a way to distinguish formally between the present perfect *-DI* and the present perfect *-mİş*, an important issue I will ignore here.

21. I am employing the last category $\pm F$, in the sense this feature is used by Radford (1997).

22. The third type, specifier feature that marks the properties of the specifier of a head plays no role in the present study.

23. Checking of the functional categories involve raising of the complement to the head position to collect the next affix. This will be relevant in cases where the question clitic *mİ* intervenes between some Tense affixes and the agreement clitics. I will return to this issue in 3.2.

24. This leads Kornfilt (1996) to assume that *-DI*, *-sE* and *-mİş* are each single affixes, but that their meanings change with respect to the position they occupy in the inflectional complex. In the light of the observations made so far, it is not clear how such a system can be made to work formally or semantically.

25. This paradigm is called “short suffixes” by Lees (1962), and the “*k*-paradigm by Good and Yu (2000), because of the *-k* in 1PL.

26. This paradigm is also known with a variety of names. Deny (1921) calls it “enclitic”, Lees (1962) calls it “long suffixes” or “copula-suffix paradigm”, Good and Yu (2000) refer to it as “the *z*-paradigm” because of the *-z* in 1PL.

27. But Deny (1921) also indicates that *-Iyor*, which takes the clitic paradigm is actually not a participial. This is a somewhat complicated issue. Of the six tense affixes that are considered to be participial, only three, *-yEcEG*, *-Er-Ir* and *-mİş* can be used as premodifiers. I will return to the participial nature of these affixes in Section 3.1, below.

28. Kornfilt (1996), referring to the true-tense vs. participle-tense distinction, seeks a solution to the clitic agreement and some related issues by positing an underlying \emptyset copula in such forms. Kornfilt’s (1996) acknowledgement of Lees (1961, 1962) as a “proposal similar to mine” and her claim to originality in the following words, “What is more markedly novel about the proposal I am making in this paper [Kornfilt (1996)] is that some of the simple finite verb forms (i.e. those illustrated in (2) [*gid-ecēg-im*, *git-mış-im*, *gid-ér-im*, etc.]) are actually complex”, [that is containing an underlying \emptyset copula] have no foundation in reality. Kornfilt (1996) also notes that Lees (1961, 1962) makes such claims “in passing”, does not provide arguments, has the main goal of deriving all inflectional suffixes from single sources and gives rise to “[...] rules which are numerous and complicated”. All this is based on a blatant misunderstanding of Lees (1961, 1962) on the part of Kornfilt (1996). Lees (1962: 146) is fully conscious of the morphosyntactic objectives when he explicitly notes, that “since, as usual, the most general morphophonemic rules can be formulated only in terms of basic features of the syntactic organization of the sentence, we must provide at least a sketch of the types of syntactic patterns we presuppose sentences containing personal morphemes to have. Of course, no very strong case can be made for the details without delving very deeply into Turkish syntax [...]”. Finally, the numerousness of the rules in Lees (1961, 1962) is partly due to his commitment, as a nuts-and-bolts linguist, to explicitly accounting for all grammatical phenomena, great or small, as he never expected explanations to take care of themselves, but mostly due the *Syntactic Structures* model he worked in, where all of syntax, morphology and phonology were done in a single computational component. The complicatedness on the other hand is only apparent, due to his constant desire to collapse partially similar rules in a hard-to-read notation, something that usually confuses the uninitiated. Based on these observations, and specifically concerning the positing of an underlying copula in specific inflectional forms, there is no *novelty* or special merit in Kornfilt (1996) in comparison to Lees (1961, 1962).

29. Kornfilt (1966) motivates a copula for (51) to account for the clitic. In this theory the auxiliary is the clitic and the agreement is an affix. This has the same problem of economy as Lees’s solution. Also as observed by Erdal (2000) the clitic paradigm itself is clitic. It is a well-

known fact that these are the cliticized forms of the personal pronouns on the Tense2 verbs and predicate substantives. See Adamović (1985) for extensive discussion of these forms.

30. Most systematic treatment of these forms is in Deny (1921). References also abound in later literature.

31. As duly observed by Erguvanlı-Taylan (1986:164) that forms such as (55a) are quite felicitous in the negative.

- i. Erol'u sev-me-di değil-im.
Erol-ACC love-NEG not-1SG
'It's not that I didn't love Erol.'

Certainly there are semantic issues that override the distinction being made here, weakening the distinction between true and participial tenses, an issue that requires serious consideration.

32. The most substantial study known to me to date is Erguvanlı-Taylan (1986). It shown there that there are important semantic factors that affects these cases. I will not consider these important issues here.

33. The necessitative *-mEll* did not historically function this way. In Old Anatolian Turkish and in some modern Turkish dialects, *-mEll* does allow the participial tensed forms as complement. Observe below.

- i. ben-i öldür-meli dugh-meli deghil
I-ACC kill-NECES beat up-NECES not-3SG
'They should kill me, not beat me up.' Adamović (1985:305)

Aksoy (1945–46) notes that in the southeastern Anatolian dialect of Gaziantep of Modern Turkish, *-mEll* can still be a complement to *değil*.

- ii. gel-meli değil-im
come-NECES not-1SG
'I don't have to come.'

34. Notice that in both cases, [–Finite, –Nominal] category is empty. This means that in Turkish, if a tense or agreement paradigm is nonfinite, it must be nominal, which may well be a principle of universal grammar. Also in this context a short clarification is in order on the concept of finiteness of George and Kornfilt (1981), henceforth GK, and how it is different from the one conceived here. According to GK, finiteness in Turkish is associated with agreement, and by definition, any phrase that has agreement is finite. Finite phrases are then divided into gerunds and direct complements — the former covers the infinitive clause, and the latter covers the nonsubstantival phrases. Notice crucially that according to GK, nominal clauses/phrases with agreement are finite. Finally GK's finiteness does not distinguish between the participial and true tenses, nor of course, is it intended to.

35. Consider, however, footnote 31.

36. These issues have been addressed by Groat (1992), Orgun (1996), Good and Yu (2000). I will not discuss these analyses here but they deserve serious attention for their empirical and theoretical consequences. Particularly in the case of Groat (1992), it is important to see the

additional assumptions to incorporate these in a theory, which is compatible with the Minimalist Program.

37. Notice that this does not say anything about phonological distinction. In phonology clitics are distinguished as prestressing but behave like affixes in undergoing vowel harmony.

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