

THE SYNTAX OF SENTENTIAL COMPLEMENTATION IN  
TURKISH

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# THE SYNTAX OF SENTENTIAL COMPLEMENTATION IN TURKISH

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This dissertation examines primarily the syntactic, but also the semantic/ pragmatic behavior of sentential complement clauses in Turkish and proposes a new classification of such complements. A head-final language, Turkish lacks an overt, lexical complementizer akin to English *that*. The most frequent types of sentential complementation in the language are nominalized clauses; however, it is shown that analyses in which nominalized clauses have a DP-layer above or below them are not tenable. It is argued that both nominalized clauses in Turkish and *that*-clauses in English have a [+n/- v] feature in C: in Turkish, this nominal feature manifests itself through nominalization, whereas in English this [+n/ -v] feature manifests itself through the demonstrative *that*, also a nominal expression. Embedded *ki*-clauses, generally thought of as just another case of subordination, albeit with an ‘Indo-European’ pattern where *ki* is considered a complementizer, are shown to be paratactic clauses with their own assertoric illocutionary force. The *ki* element, originally borrowed from Persian, is analyzed here as a coordinator of category C. The puzzling root-clause character of these clauses, as well as their characteristic syntactic/semantic behavior with respect to word order, NPI-licensing, wh-questions, binding, and focusing adverbs are explained by virtue of this paratactic analysis. The peculiar syntactic and semantic/pragmatic properties of clauses traditionally labelled as ‘fully finite complements’ are shown to be due to their embedded root clause status. These embedded root clauses (ERCs) are also assertions, introducing new information into the discourse. The dissertation further reveals a tight relationship between the position and the interpretation of both DPs and CPs in Turkish. Extending Diesing’s

(1992) Mapping Hypothesis to CPs, it is argued that referential arguments—both DPs (accusative marked object NPs) and CPs (nominalized clauses)—are externally merged above the VP, whereas non-referential arguments—both existential DPs (bare object DPs) and assertive CPs (embedded root clauses) are below the VP, in the nuclear scope. Under this new analysis of complementation in Turkish, accusative-marked subjects that may occur in ERCs receive a natural explanation: when presuppositional/referential, the subject of the ERC has to move out of the ERC (i.e. the nuclear scope) into the matrix clause (i.e. the restriction clause), where it receives accusative marking, just like any other presuppositional/referential object in Turkish. This movement of the ERC subject into the matrix clause is shown to be due to reasons of information structure. Thus, contra George and Kornfilt (1981), agreement is not seen as the primary factor of finiteness in Turkish.

## **BIOGRAPHICAL SKETCH**

Esra Predolac was born in Siegen, Germany in 1979. She received her B.A. in English Language Teaching from Hacettepe University, Ankara, in 2001, and her M.A. in the same field from Gazi University, Ankara, in 2005. She came to the US via a Fulbright Scholarship in 2005 and received her M.A. in Linguistics from Syracuse University in 2007. At the same year, she entered the Ph.D. program of the Department of Linguistics at Cornell University. Esra Predolac is currently a Lecturer in Turkish and the Coordinator of the Critical Languages Consortium at the University of Kansas, where she has been working since 2013.

To my mother.

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## CHAPTER 1

### INTRODUCTION

This dissertation examines the syntactic and semantic/pragmatic behavior of sentential complement clauses in Turkish, a head-final language. In the traditional sense, Turkish lacks an overt, lexical complementizer that is akin to English *that*. The most common types of complementations in the language are nominalized clauses, that is, clauses that have a genitive marked subject, a suffix traditionally labelled as a nominalizer, and a nominal subject-verb agreement marker. Given that there is no overt, lexical C in Turkish, one might question the existence of the C layer in such embedded contexts or suggest that C in Turkish is not on a par with C in other languages with overt, lexical C such as English. The aim of this dissertation is to show that such views on Turkish C cannot be maintained. In particular, it is argued that both nominalized clauses in Turkish and *that*-clauses in English have a [+n/-v] feature in C: In Turkish, this nominal feature manifests itself through nominalization, whereas in English this [+n/-v] feature manifests itself through the demonstrative *that*, a nominal expression.

In Chapter 2, I examine Turkish embedded clauses that are headed by the so-called complementizer *ki*, an element that was borrowed into Turkish from Persian. Turkish *ki*-clauses have generally been assumed to be subordinate clauses of the Indo-European style (see Kornfilt (1997) and Göksel and Kerslake (2005), among others). *Ki*-clauses are characterized by an overt complementizer, namely *ki*, a subject in the nominative, a finite, verbal form, and the whole sentence exhibits SVO word order. Crucially, *ki* has been assumed to be on par with English *that*. However, it is shown here that *ki* is not a complementizer in the traditional sense, nor are *ki*-clauses subordinate clause. Instead, evidence is provided that *ki*-clauses are paratactic clauses, with *ki* being a coordinator of category C.

Chapter 3 looks at clauses dubbed generally as “fully finite complements” in the literature. Such clauses have a nominative subject and a verbal subject-verb agreement form, and lack an overt, lexical complementizer. Such clauses are restricted to the immediate preverbal position. A closer examination of their properties reveals that what makes such clauses distinctive is not their property of being finite. Instead it is argued that such clauses are embedded root clauses (ERCs), similar to embedded V2 in German or *that*-deletion contexts in English. Furthermore, just like *ki*-clauses, such ERCs are shown to be assertions, introducing new information into the discourse. The distribution of ERCs (assertive CPs) is then shown to be identical to the distribution of bare object NPs (existential NPs), and thus, Diesing’s (1992) Mapping Hypothesis is extended here to CPs as well: both existential NPs and assertive CPs are shown to be exclusively within the nuclear scope of the quantification structure. Under this new proposal of ERCs, accusative-marked subjects that may occur in such clauses receive a natural explanation: when topical/referential, the subject of the ERC has to move out of the nuclear scope (i.e. the ERC) into the restrictive clause (the matrix clause), where it will get accusative marking, just like any other topical/referential object. This new analysis of ERCs and accusative-marked subjects has another important implication for Turkish: agreement, traditionally considered to be the determiner of finiteness in Turkish (cf. George and Kornfilt (1981)) is shown not to be the reason for accusative marked subjects, and thus, agreement is not taken here to define finite domains. Instead, accusative case marking on the ERC subject is seen as an information-structure-related movement only.

Chapter 4 examines two types of nominalized embedded clauses in Turkish, those constructed with the suffix *-mA* and those constructed with the suffix *-DIK/-AcAK*.<sup>1</sup> Both *-mA*

---

<sup>1</sup>Capital letters in suffixes denote vowel or consonant alternations. In the case of vowels, *I* stands for the alternation between *i*, *ı*, *ü*, and *u*; *A* stands for the alternation between *a* and *e*. In the case of consonants, *D* stands for the alternation between *d* and *t*, and *K* between *k* and *ğ*.

and *-DIK/-AcAK* are attached to verbs and create nominalizations in embedded contexts, and thus, *-mA* and *-DIK/-AcAK* are standardly labelled as nominalizing suffixes. I argue that Turkish nominalized embedded clauses, despite being nominalized and not having a complementizer of the Indo-European type, exhibit parallels with embedded clauses headed by a complementizer such as *that* in English or *dass* in German. First, evidence is provided that *-DIK/-AcAK* clauses are indicative clauses, whereas *-mA* clauses are subjunctive clauses. Both *-DIK/-AcAK* and *-mA* clauses are argued here to be CPs; however, only *-DIK/-AcAK* clauses are phases. Crucially, neither clause has a nominal layer below or above the CP. Rather, the “nominal property” is encoded in C in much the same way a “nominal property” is encoded in C in English embedded clauses with *that*. It is further argued that, in line with Kural (1993), Turkish has V-T-C movement. In fact, C is argued to be crucial not only in the licensing of subjects but also in the valuing/checking of subject case.

In Chapter 5, I further explore some of the issues that come up in preceding chapters and discuss them in the light of some recent literature. These issues include definitions of verbal and nominal domains in Turkish, the role of accusative case marking in Turkish, implications of Turkish complementation for Stowell’s (1981) *Case Resistance Principle*, as well as the issue of finiteness and agreement in Turkish. Crucially, this chapter further reveals the tight relationship between the position and the interpretation of both DPs and CPs in Turkish: in line with Diesing’s (1992) Mapping Hypothesis, referential arguments—both accusative marked DPs and nominalized CPs are externally merged above the VP, whereas non-referential arguments—both bare object DPs and ERCs are below the VP, in the nuclear scope.

A summary of previous chapters and final remarks are found in Chapter 6.

## CHAPTER 2

### KI-CLAUSES IN TURKISH: A PARATACTIC ANALYSIS

#### 2.1 Introduction

This chapter provides a unified analysis of Turkish embedded clauses that are headed by the so-called complementizer *ki*, which was borrowed into Turkish from Persian. Turkish *ki*-clauses have generally been assumed to be subordinate clauses of the Indo-European style (see Kornfilt (1997) and Göksel and Kerslake (2005), among others). *Ki*-clauses are characterized by an overt complementizer, namely *ki*, a subject in the nominative, finite verbal forms, and crucially, the whole sentence exhibits SVO word order as seen in (1):<sup>1</sup>

##### *Ki-Clause*

- (1) Teoman-Ø san-iyor-Ø [ *ki* Mete-Ø okul-a git-ti-Ø ].  
Teoman-Nom believe-Prog-3Sg [ *ki* Mete-Nom school-Dat go-Past-3Sg ] .  
'Teoman believes that Mete went to school.'

This is in stark contrast to the most common embedded clause type in Turkish, the nominalized embedded clauses (aka the ‘native’ pattern). Such nominalized embedded clauses are case-marked appear with a genitive subject, exhibit nominal agreement, and—in their default position—precede the matrix verb, conforming therefor to the standard Turkish SOV pattern as seen in (2):

---

<sup>1</sup>See Appendix A for glosses.

### *Nominalized Clause*

- (2) Teoman-Ø [ Mete-**nin** okul-a git-tiġ-**in** ]-**i**  
Teoman-Nom [ Mete-**Gen** school-Dat go-DIK-3SgPoss ]-**Acc**  
san-iyor-Ø.  
believe-Prog-3Sg  
'Teoman believes that Mete went to school.'

Unlike these native nominalized subordinate clauses, *ki*-clauses exhibit unusual surface properties. The subordination analysis of the *ki*-clause attributes its unusual surface properties to foreign origin (i.e., their “Indo-Europeaness”), but apart from this, treats it in essentially the same way as any other subordinate clause. However, it is shown here that the subordination analysis for *ki*-clauses cannot account for the properties of *ki*-clauses. I argue that the *ki*-clause exhibits features which distinguish it from subordination as well as coordination, and that *ki*-clauses are rather paratactically connected to their matrix clauses. Evidence will be presented that *ki*-clauses are assertions, and as such, *ki*-clauses are independent expressions having their own illocutionary force. Seemingly puzzling syntactic/semantic properties of such clauses (e.g. those regarding negation, NPI-licensing, *wh*-questions, fixed position, etc.) are explained by virtue of this paratactic analysis.

Section 2.2 presents various properties of *ki*-clauses in Turkish, and shows why a subordination analysis of *ki*-clauses is not tenable. Evidence is presented that *ki*-clauses are assertions, and as such, independent expressions which have their own illocutionary force. Section 2.3 lists the differences between *ki* and *that*. In section 2.4, it is argued that the *ki*-clauses exhibit features that are incompatible not only with subordination, but with standard coordination as well, and that *ki*-clauses are, instead, paratactically connected to their matrix clauses. A derivational account is then provided in section 2.5 in order to capture the relationship that the *ki*-clause has with a position inside the matrix clause. The non-

standard surface properties of the *ki*-clause, as well as their characteristic behavior with respect to negation, NPI-licensing, *wh*-questions, focusing adverbs, etc. are all explained by virtue of this paratactic-assertoric analysis. Section 2.6 presents a brief overview of previous analyses. Finally, section 2.7 concludes the chapter.

## 2.2 Properties of *ki*-clauses

*Ki*-clauses exhibit main/root clause properties. As was shown above, *ki*-clauses have a subject with nominative case, verbal agreement, and the whole sentence the *ki*-clause finds itself in has SVO word order (example (1), repeated here as (3)):

- (3) Teoman-Ø san-iyor-Ø [ *ki* Mete-Ø okul-a git-ti-Ø ].  
 Teoman-Nom believe-Prog-3Sg [ *ki* Mete-Nom school-Dat go-Past-3Sg ] .  
 ‘Teoman believes that Mete went to school.’

As such, *ki*-clauses are like Turkish main clauses, thus exhibiting root properties (4):<sup>2</sup>

- (4) Mete-Ø okul-a git-ti-Ø.  
 Mete-Nom school-Dat go-Past-3Sg  
 ‘Mete went to School.’

---

<sup>2</sup>Further note that *ki*-clauses are ruled out from non-root positions such as Complex DP complements:

- (i) \*Herkes [DP [CP *ki* Elçin çok hasta-Ø-Ø ] iddia-sın ] -a inan-iyor  
 Everybody ki Elçin very sick-Cop-3Sg claim-CMPM -Dat believe-Prog  
 Intended: ‘Everybody believes the claim that Elçin is very sick.’
- (ii) \*Herkes inan-iyor [DP [CP *ki* Elçin çok hasta-Ø-Ø ] iddia-sın ] -a  
 Everybody believe-Prog ki Elçin very sick-Cop-3Sg claim-CMPM -Dat  
 Intended: ‘Everybody believes the claim that Elçin is very sick.’

The root-clause character of *ki*-clauses is not accidental, as it will be shown to be closely related to some of the semantic/pragmatic properties of *ki*-clauses described below, most notably to their property of having an independent illocutionary force of *assertion*.

The fact that the *ki*-clause exhibits main/root clause properties is essential to understanding certain behaviors of such clauses. One such behavior is the *assertive* character of *ki*-clauses.

### 2.2.1 Assertiveness of *ki*-clauses

The following examples show that the main clause predicate that combines with a *ki*-clause has to be assertive:<sup>3</sup>

- (5) Anla-dı-m      *ki* hiçbir şey eskisi gibi ol-ma-yacak-Ø.  
realize-Past-1Sg ki nothing old like be-Neg-Fut-3Sg  
'I realized that nothing will be as before.'

---

<sup>3</sup>In their work on embedded root phenomena, Hooper and Thompson (1973) show, contra Emonds (1969), that root transformations (RT) are not restricted to matrix sentences only, but that, in fact RTs can operate in many embedded sentences as well. They show that certain verb classes (including semi-factives) allow for embedding of transformations which Emonds (1969) claims to be restricted to matrix sentences, and propose that the distribution of root phenomena has a semantic characterization, namely, that these occur only in clauses that are asserted. Although Hooper and Thompson (1973) admit that they do not give "an absolute definition of assertion", they state that the assertion of a sentence is "its core meaning or main proposition." The crucial point here is that they provide evidence to support the extension of this notion to cover structures that are not traditionally considered assertions, such as subordinated clauses. While mainly following Hooper and Thompson (1973) in their use of the notion of assertion, I consider the notion of assertion to be one that introduces new information into the discourse.

- (6) Elçin san-ıyor-Ø      *ki* hersey      yol-un-da.  
           Elçin believe-Prog-3Sg ki everything way-3SgPoss-Loc  
           'Elçin believes that everything is going alright.'

Predicates that are non-assertive cannot take a *ki*-clause, regardless as to whether they are *true factive* or *non-presuppositional*:

(7) *Non-assertive (true factive)*

- a. \*Pişman-Ø-im    *ki* Londra-ya    taşın-di-m.  
 reget-Cop-1Sg ki London-Dat move-Past-1Sg  
 Intended: 'I regret that I moved to London.'
- b. \*(Çok) Şaşır-dı-m      *ki* Elçin gel-di-Ø.  
 (very) be.surprised-Past-1Sg ki Elçin come-Past-3Sg  
 Intended: 'I am/got (very) surprised that Elçin came.'

(8) *Non-assertive (non-presuppositional)*

- a. \*Mümkün *ki* Elçin gel-ecek-Ø.  
 Possible    *ki* Elçin come-Fut-3Sg  
 Intended: 'It's possible that Elçin will come.'
- b. \*Muhtemel *ki* Elçin kazan-acak-Ø.  
 Likely      *ki* Elçin win-Fut-3Sg  
 Intended: 'It's likely that Elçin will win.'

In (9) the main clause predicates are apparent non-assertives (*true factive in these cases*), and yet (9) is grammatical:

- (9) Kork-ar-Ø-im      / Ne yazık      / Üzgün-Ø-üm    *ki* [ Elçin  
           Fear-Aor-Cop-1Sg / unfortunately / sorry-Cop-1Sg *ki* [ Elçin  
           gel-e-me-yecek-Ø-Ø      ].  
           come-Abil-Neg-Fut-Cop-3Sg ]]  
           'I'm afraid / I'm sorry/ Unfortunately, Elçin will not be able to come.'

However, note that examples such as (9) are only apparent exceptions to the claim that *ki*-clauses are assertions. Expressions such as ‘I regret that’, ‘I’m sorry that,’ etc. are assertive in such cases, introducing new information into the common ground, and are in no way counterexamples to the claim that *ki*-clauses are assertions. For instance, the following example cannot be used in a situation where discourse participants already know that *Elçin* won’t be able to come and one of the participants expresses his/her feelings regarding *Elçin*’s not coming.

- (10) Üzgün-Ø-üm/üz *ki* [ Elçin gel-e-me-yecek-Ø-Ø ].  
 sorry-Cop-1Sg/1Pl ki [ Elçin come-Abil-Neg-Fut-Cop-3Sg ]  
 ‘I’m/We’re afraid/sorry, Elçin won’t be able to come.’

Not: ‘I/We feel sorry that Elçin won’t be able to come.’

Instead, the following nominalized clauses would be used:

- (11) [ Elçin-in gel-e-me-me-sin ]-e üz-ül-dü-m.  
 [ Elçin-Gen come-Abil-Neg-mA-3SgPoss ]-Dat sorry-Pass-Past-1Sg  
 ‘I’m sorry that Elçin won’t be able to come.’ *Subjunctive, nominalized*
- (12) [ Elçin-in gel-e-me-yeceğ-in ]-e üz-ül-dü-m.  
 [ Elçin-Gen come-Abil-Neg-Fut-3SgPoss ]-Dat sorry-Pass-Past-1Sg  
 ‘I’m sorry that Elçin won’t be able to come.’ *Indicative, nominalized*

The particular constructions in (9) and (10) with apparent non-assertive predicates and *ki* can only be used to introduce new information into the discourse.

Further note that such expressions in Turkish are limited to 1<sup>st</sup> person, which seems to be the case in English also:

- (13) I'm/We're afraid, John won't be here tonight.  
 \*He's/You're/They're afraid, John won't be here tonight.

- (14) \*Üzgün-Ø-Ø/      Üzgün-Ø-sün/      Üzgün-Ø-sünüz/      Üzgün-Ø-ler    *ki* [ Elçin  
 sorry-Cop-3Sg/ sorry-Cop-2Sg/ sorry-Cop-2Pl/ sorry-Cop-3Pl *ki* [ Elçin  
 gel-e-m-eyecek-Ø-Ø  
 come-Abil-Neg-Fut-Cop-3Sg ].

Next, we will examine a phenomenon that is closely linked to the issue of assertion, namely negation.

### 2.2.2 Negation and *ki*-clauses

A matrix clause with an assertive predicate that is negated, as in (15), or an inherently negative predicate, as in (16), cannot combine with a *ki*-clause. This is not surprising, as a negated matrix predicate would imply that the content of the proposition in the *ki*-clause is already part of the common ground, which is in conflict with the assertive character of *ki*-clauses.<sup>4</sup>

- (15) *Negated matrix clause*
- a. \*Anla-ya-**ma**-di-m      *ki* hiçbir şey eskisi gibi ol-ma-yacak-Ø.  
 realize-Abil-Neg-Past.-1Sg *ki* nothing old like be-Neg-Fut-3Sg  
 Intended: 'I couldn't realize/understand that nothing will be as before.'

---

<sup>4</sup>Note that Göksel and Kerslake (2005, p. 409) also mention that the main predicate that precedes a *ki*-clause is rarely cast in an interrogative or negative form. However, they do not mention why this should be the case nor do they mention under what special circumstances negated main predicates allow a *ki*-clause.

- b. \*Belgin san-**mi**-yor-Ø      *ki* hersey      düzeyecek.  
     Belgin believe-Neg-Prog-3Sg *ki* everything will come right  
     Intended: 'Belgin does not believe that everything will be alright.'

(16) *Matrix clause with inherently negative verb*

- a. \***Süphe ed-iyor-um** *ki* hersey düzelecek.  
 Doubt do-Pres-1Sg *ki* everything will come right  
 Intended: 'I doubt that everything will be alright.'

b. \*Müdür **inkar et-ti-** $\emptyset$  *ki* kitap- $\emptyset$  yasakla-n-di- $\emptyset$ .  
 principal deny do-Past-3Sg *ki* book-Nom forbid-Pass-Past-3Sg  
 Intended: 'The principal denied that the book was forbidden.'

It follows from this that a negative polarity item cannot be licensed by a negative element in the matrix clause. Note that in the more common SOV type of subordination pattern of Turkish (i.e., those that are nominalized) no such restriction is observed. As the following examples show, an NPI can be licensed by a negative element in the matrix clause :

(17) *Embedded nominalized SOV clauses*

- a. [ **Kimse-nin** sigara iç-tiğ-in ]-i zannet-**mi**-yor-um.  
   [ **Nobody-Gen** cigarette smoke-DIK-3SgPoss ]-Acc believe-Neg-Prog-1Sg  
   'I don't believe that anybody smoked.' *Indicative*

b. [ **Kimse-nin** gel-me-sin ]-i iste-**mi**-yor-um  
   [ **Nobody-Gen** come-mA-3SgPoss ]-Acc want-Neg-Prog-1Sg  
   'I don't want (for) anybody to come.' *Subjunctive*

The incompatibility of negation with *ki*-clauses is not due to structural conditions, but due to pragmatic restrictions instead. In example (18), the matrix predicate is non-assertive (a true factive) and is negated, yet the matrix predicate is still able to take a *ki*-clause:

- (18) Unut-**ma**-Ø            *ki sen de kul-sun.*  
           forget-Neg-Imp.2Sg *ki* you too mortal-2Sg  
           'Don't you forget that you, too, are mortal/human.'

The crucial point here is that the (imperative) predicate here does not negate the proposition in the *ki*-clause. The content of proposition in the *ki*-clause is still asserted.<sup>5</sup>

Cases of a negative predicate taking a *ki*-clause are very rare, but they are not *a priori* ruled out. Negation in the matrix clause is grammatical as long as it does not negate the content of the proposition of the *ki*-clause and hence leading to the presupposition that the content of the proposition in the *ki*-clause is already part of the common ground.<sup>6</sup>

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<sup>5</sup>In this example, the matrix clause predicate is in the imperative. In all other forms (past, aorist, progressive, etc.) this sentence is ungrammatical:

- (i) \*Unut-*mu-yor-um*    *ki sen de kul-sun.*  
           forget-Neg-Prog-1Sg *ki* you too mortal-2Sg  
           'I don't forget that you are mortal/human, too.'

Here the negation negates the proposition in the *ki*- clause, and the *ki*-clause would necessarily be presuppositional.

<sup>6</sup> There is another case of a negated predicate taking a *ki*-clause, namely the epistemic *san-mak* 'to believe'. In such cases the epistemic predicate is limited to 1st person and the *ki*-clause is necessarily in the subjunctive.

- (i) ??Zannet-**mi**-yor-um *ki Bora böyle birşey söyle-sin.*  
           believe-Neg-Prog-1Sg *ki* Bora like something say-3SgSubjunctive  
           'I don't think Bora would say/ has said something like this.'

That negated epistemics may select for an embedded main clause that is in the subjunctive only is not a phenomenon restricted to Turkish. In German, too, root clauses resist embedding under negation unless the root clause is in the subjunctive mood. A similar phenomenon might be cases of polarity subjunctives in some Romance languages, where negated epistemic predicates in the first person require a subjunctive complement. I will leave the issue of negated epistemics and subjunctive mood aside for now. However, it

### 2.2.3 Questions and *ki*-clauses

Questioning a *ki*-clause is ruled out, which also follows from the assertive character of *ki*-clauses. To question the content (and truth value) of the proposition would entail that it already is part of the common ground, which is in conflict with the assertive, nonpresuppositional character of *ki*-clauses.

(19) *Questioned Matrix Clause*

- a. İsti-yor-∅              *ki* yarın        okul-a        git-me-sin.  
want-Prs.Prog-3Sg ki tomorrow school-Dat go-Neg-3Sg.Opt/Subjunctive  
'S/he wants that s/he does not go to school tomorrow.'
- b. \*Kim isti-yor-∅        *ki* yarın        okul-a  
Who want-Prs.Prog-3Sg ki tomorrow school-Dat  
git-me-sin?  
go-Neg-2Sg.Opt/Subjunctive  
Intended: 'Who wants that s/he does not go to school tomorrow?'
- c. \*İsti-yor              mu-∅ *ki* yarın        okul-a        git-me-sin?  
want-Prs.Prog Q-3Sg ki tomorrow school-Dat go-Neg-2Sg.Opt/Subjunctive  
Intended: 'Does wants that s/he does not go to school tomorrow?'

---

should be noted that even in such cases a negative polarity item within the *ki*-clause cannot be licensed by negation in the matrix clause. This restriction follows from the structural position of *ki*-clauses. As will be shown in later sections, such negative polarity items are not c-commanded by the negative element in the matrix clause.

- (ii)     \*Zannet-mi-yor-um    *ki* hiç kimse sigara iç-sin        / iç-ti-∅.  
believe-Neg-Prog-1Sg ki anybody cigarette smoke-3SgSubj. / smoke-Past-3Sg  
Intended: 'I don't believe that anybody smokes (will smoke)/ smoked.'

Not only is it not possible to question the *ki*-clause, but a question inside the *ki*-clause also leads to ungrammaticality. This was already noted by Kornfilt (1997, p. 13): ‘no matrix question can be formed by replacing any constituent of a subordinate *ki*-clause.’<sup>7</sup>

(20) *Questions Within the ki-Clause*

- a. \*Duy-du-n [ *ki* [ Ali **nere-ye** git-ti ] ]?  
hear-Past-2Sg that Ali where-Dat go-Past  
Intended reading: ‘Where did you hear that Ali went?’
- b. \*Duy-du-n [ *ki* [ Ali **kim-i** sev-iyor ] ]?  
Hear-Past-2Sg that Ali who-Acc love-Prog.  
Intended reading: ‘Whom did you hear that Ali loves?’

---

<sup>7</sup>Such sentences are grammatical as statements:

(i) *Statements*

- a. Duy-du-m [ *ki* [ Ali cinema-ya git-ti ] ].  
hear-Past-1Sg that Ali cinema-Dat go-Past  
I heard that Ali went to the movies.’
- b. Duy-du-m [ *ki* [ Ali Zeyneb-i sev-iyor ] ].  
Hear-Past-1Sg that Ali Zeynep-Acc love-Prs.Prog.  
I heard that Ali loves Zeynep.’
- c. Zanned-iyor-um [ *ki* [ Ali ev-in-den helikopter-le kaç-tı ] ].  
believe-Prs.Prog-1Sg that Ali home-3Sg-Abl. helicopter-with escape-Past  
I believe that Ali escaped from home with a helicopter.’
- d. İsti-yor-um [ *ki* [ Ali üniversite-ye git-sin ] ].  
want-Prs.Prog.-1sg. that Ali university-Dat go-3Sg.Opt.  
I want that Ali should go to the university”

(Kornfilt, 1997, p. 13-14)

- c. \*Zanned-iyor-sun [ *ki* [ Ali ev-in-den **niye/nasıl** kaç-tı ] ]?  
 believe-Prog-2Sg that Ali home-3Sg-Abl. why/how escape-Past  
 Intended reading: ‘Why/How do you believe that Ali ran away from home?’

(Kornfilt, 1997)

Although this restriction was noted, no explanation was given for its occurrence. If the *ki*-clause is really a subordinate clause, there should be no reason why *wh*-extraction is not allowed. I argue that this restriction, too, follows from the fact that *ki*-clauses are not subordinated, but paratactically connected independent expressions marking assertion. Questions do not add a proposition content and a truth value to the common ground, hence nothing is asserted, and the use of a *ki*-clause is ruled out.

#### 2.2.4 Fixed Position—No Topicalization

Another piece of evidence that the *ki*-clause is an independent expression indicating assertion is the fact that such *ki*-clauses can never be subjects or be topicalized. The position of *ki*-clauses is fixed to the right of the matrix clause.

- (21) \*[ *Ki* Ulaş Londra-ya uç-tu-∅ ] belli/ bil-in-iyor.  
 [ *ki* Ulaş Londra-Dat fly-Past-3Sg ] obvious/ know-Pass-Prog  
 Int.: ‘That Ulaş flew to London is obvious/known.’ *Subject ki-clause*
- (22) \*[ *Ki* Ulaş Londra-ya uç-tu-∅ ] biz bil-iyor-uz.  
 [ *ki* Ulaş London-Dat fly-Past-3Sg ] we know-Prog-1Pl  
 Intended: ‘That Ulaş flew to London, we know.’ *Topicalized ki-clause*

Note that the corresponding nominalized subordinate clauses are not restricted in such ways:

- (23) [ Ulaş-in Londra-ya uç-tug-u ]-Ø belli/ bil-in-iyor.  
       [ Ulaş-Gen London-Dat fly-DIK-3SgPoss ]-Nom obvious/ know-Pass-Prog  
       ‘That Ulaş flew to London is obvious/ well-known.’
- (24) [ Ulaş-in Londra-ya uç-tu-ğ-un ]-u biz bil-iyor-uz.  
       [ Ulaş-Gen London-Dat fly-DIK-3SgPoss ]-Acc we know-Prog-1Pl  
       ‘That Ulaş flew to London, we know.’

The fact that *ki*-clauses show this restriction is puzzling under a standard subordination analysis. However, this seemingly puzzling property of *ki*-clauses is easily explained if we analyze such *ki*-clauses as assertions. Assuming Diesing’s (1992) Mapping Hypothesis, both the topicalized clause and the sentential subject clause belong to the restriction clause in the quantification structure, thus having a presuppositional interpretation. Hence, being assertions, it is not a surprise that *ki*-clauses cannot occur in such positions.

## 2.2.5 Incompatibility with Presuppositional Triggers

If *ki*-clauses mark assertion, they should be incompatible with presupposition triggers. As the following example shows, this prediction is borne out:

- (25) Cengiz (\*bile/de) san-iyor-Ø *ki* Alper ban-a yalan söyle-di-Ø.  
       Cengiz (even/also) believe-Prog-3Sg *ki* Alper I-Dat lie say-Past-3Sg  
       Intended: ‘Even/Also Cengiz believes that Alper lied to me.’

The “native” nominalized embedded clause shows no such restriction:

- (26) Cengiz bile/de [ Alper-in ban-a yalan söyle-dig̃-in ]-i  
          Cengiz even/also [ Alper-Gen I-Dat lie say-DIK-3SgPoss ]-Acc  
          san-iyor-∅.  
          believe-Prog-3Sg  
          'Even/ Also Cengiz believes that Alper lied to me.'

## 2.2.6 Incompatibility with Focusing Adverbs

Focusing adverbs must c-command the focused constituent they are associated with. *Ki*-clauses are not compatible with focusing adverbs in the matrix clause, i.e., a *ki*-clause or any constituent within the *ki*-clause cannot associate with a focusing adverb that is within the matrix clause:

- (27) Cengiz (\*sadece) anla-di-∅         *ki* Alper davet ed-il-di-∅.  
          Cengiz (only) realize-Past-3Sg *ki* Alper invite do-Pass-Past-3Sg  
          Intended: 'Cengiz only realized that Alper was invited.'

Once again, we see that nominalized embedded clauses are not limited that way:

- (28) Cengiz sadece [ Alper-in davet ed-il-dig̃-in ]-i         anla-di-∅.  
          Cengiz only [ Alper-Gen invite do-Pass-DIK-3SgPoss ]-Acc realize-Past-3Sg  
          'Cengiz only realized that Alper was invited.'  
          'Cengiz realized that only Alper was invited.'  
          'Cengiz realized that Alper was only invited.'

The ungrammaticality of (27) with the focusing adverb indicates that the *ki*-clause must be in a position that is not c-commanded by the focusing adverb.

## 2.2.7 Causative Clauses and Scope of Negation

Negative sentences with a causative adjunct allow for ambiguity depending on whether the causative is inside or outside the scope of negation (Williams, 1974, p. 142). Such ambiguity can be seen in the following example where the causative subordinate clause is nominalized:

- (29) Bora yakışıklı ol-düğ-u **için** seç-il-**me**-di-∅.  
Bora handsome be-DIK-3Sg because choose-Pass-Neg-Past-3Sg  
'Bora was not chosen because he was handsome.' *SOV, indicative*

This sentence in (29) is ambiguous and can mean either of the following:

- (i) the reason for why Bora was not chosen is because he was handsome (causative outside the scope of negation)
- (ii) the reason for why Bora was chosen is not because he was handsome (causative inside the scope of negation)

If the *ki*-clause is indeed not a subordinate clause, as is claimed here, it should not allow for ambiguity when it is a causative clause, since the *ki*-clause would not be within the scope of the negative element in the matrix clause. This prediction is borne out.

- (30) Bora seç-il-**me**-di-∅ **çünkü** yakışıklı-y-di-∅.  
Bora choose-Pass-Neg-Past-3Sg because handsome-Cop-Past-3Sg  
'Bora wasn't chosen because he was handsome.'

In the above example, the causative clause, marked by the word *çünkü* 'because', which is morphologically related to *ki* (cf. Kornfilt, 1997, p. 13), only allows for an interpretation in

which the causative clause is outside the scope of negation. That is, this sentence can only mean that the reason for Bora's not being chosen is because he was handsome.

### 2.2.8 Quantification

Another set of data that demonstrates that *ki*-clauses are not subordinated clauses comes from quantification. As the example below shows, the quantifier in the matrix clause cannot bind the pronoun inside the *ki*-clause:

- (31) \*Herkes<sub>i</sub> dedi *ki* [ o/Ø<sub>i</sub> cevab-1 bil-mi-yor-du-Ø ].  
 Everyone<sub>i</sub> said ki [ s/he/pro<sub>i</sub> answer-Acc know-Prog-Past-3Sg ].  
 Intended: 'Everyone<sub>i</sub> said that he<sub>i</sub> did not know the answer.'

The singular pronoun in the *ki*-clause in example (31), as will be shown later on, is not c-commanded by the quantifier in the matrix clause.

Note that with the nominalized subordinated clauses no such restrictions are observed:<sup>8</sup>

- (32) Herkes<sub>i</sub> [ Ø<sub>i</sub> cevab-1 bil-me-diğ-in ]-i söyle-di-Ø.  
 Everyone<sub>i</sub> [ pro<sub>i</sub> answer-Acc know-Neg-DIK-3SgPoss ]-Acc say-Past-3Sg  
 'Everyone<sub>i</sub> said that he<sub>i</sub> did not know the answer.'

---

<sup>8</sup>An overt pronoun in the embedded clause would not be interpreted as a bound pronoun, but this is due to the *Overt Pronoun Constraint* (Montalbetti, 1984):

- (i) Mete<sub>i</sub> [ o-nun<sub>j</sub>/ Ø<sub>i</sub> cevab-1 bil-me-diğ-in ]-i söyle-di-Ø.  
 Mete [ he-Gen/ pro answer-Acc know-Neg-DIK-3SgPoss ]-Acc say-Past-3Sg  
 'Mete said that he didn't know the answer.'

## 2.2.9 *Ki*-clauses as Appositives

*Ki*-clauses can occur as appositive relative clauses:<sup>9</sup>

- (33) Bugün hava açarsa, [*ki* açacağımı pek sanmıyorum], bahçede mangal yakacaklarmış.  
‘If the weather brightens up today, [which I don’t think it really will], apparently they’re going to have a barbecue in the garden.’
- (34) Semra [*ki* partileri sevmez], o bile eğlen-di-∅.  
‘Even Semra, [who doesn’t like parties], had fun.’

(Göksel and Kerslake, 2005, p. 112)

Appositive relatives have been shown to behave like coordinated root clauses (Ross, 1967; Emonds, 1979, among many others).<sup>10</sup> The occurrence of *ki*-clauses as appositives

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<sup>9</sup>The glosses and the intonational break (||) for the sentence in (34) are as follows:

- (i) Semra || [*ki* parti-ler-i sev-mez], || o bile eğlen-di-∅.  
Semra [ki parti-Pl-Acc like-Neg.3Sg], she even have.fun-Past-3Sg  
‘Even Semra, who doesn’t like parties, had fun.’

A better translation of this sentence would be ‘Semra, and she doesn’t like parties, even she had fun.’

<sup>10</sup>The following example from Göksel and Kerslake (2005, p. 460), is especially telling, as the translation for *ki* is given as *and*:

- (i) [Uçağa bindiğimiz zaman] (***ki ona*** daha iki saat var,) rahatlayacağım.  
‘[When we get on the plain] (***and that*** is still two hours away) I shall relax.’

Göksel and Kerslake (2005, p. 459) state that following an adverbial clause of time, the demonstrative in the *ki*-clause may be a pronoun reiterating the time expressed by the adverbial clause. I argue that this

also confirms that such clauses have main/root clause properties and that *ki* is not used as a subordination strategy.<sup>11</sup>

### 2.2.10 *Ki*-clauses as Result Clauses

*Ki* can also be found in complex sentences that contain the degree adverbs ‘so’ (or ‘such’). One clause serves to indicate an extent to which the predicate modified by ‘so’/‘such’ holds and the other clause (the *ki*-clause) expresses a result:

- (35) Yonca o kadar hasta *ki*, san-a bugiün yardım ed-e-me-yecek-∅.  
Yonca that as/much ill ki, you-Dat today help do-Abil-Neg-Fut-3Sg  
'Yonca is so ill that she cannot help you today.'

There are various ways in which the above construction behaves like coordination rather than subordination. For example, Hoeksema and Napoli (1993) noticed for English that *Para(tactic)* *so*-sentences cannot be embedded, whereas *Sub(ordinate)* *so*-sentences can:

- (36) *English Sub-so and Para-so Constructions under Embedding*
- If it was so hot you couldn't breathe, then why didn't you quit exercising?
  - \*If you couldn't breathe, it was so hot, then why didn't you quit exercising?

---

not only shows the independence of the *ki*-clause from the matrix clause, but also that these two clauses are in a coordination rather than a subordination relation.

<sup>11</sup>While the general assumption is that *ki*-clauses can also occur as restrictive relative clauses, a closer look reveals that such clauses can only occur when the head noun is a (cardinal) indefinite. See the discussion in Hopper and Thompson (1973) as to why restrictive indefinite head nouns are assertions.

(37) *Turkish Sub-so (Nominalized Clause) and Para-so (Ki-Clause) Constructions under Embedding*

- a. E ğer hava nefes al-a-ma-yaca ğ -in kadar sicak-sa, neden  
 If weather breath take-Abil-Neg-Fut-2Sg so hot-Cond, why  
 dur-mu-yor-sun?  
 stop-Neg-Prog-2Sg  
 'If the weather is so hot you could not breath, why don't you stop?'
- b. \*E ğer nefes al-am-iyor-sa-n hava o kadar sicak *ki*, neden  
 If breath take-Abil-Neg-Prog-Cond-2Sg weather so hot *ki*, why  
 dur-mu-yor-sun?  
 stop-Neg-Prog-2Sg  
 \*'If you can't breathe, the weather is so hot, why don't you stop?'

These constructions, too, indicate that *ki*-clauses cannot be assumed to be subordinated to the matrix clause.

### 2.2.11 Interim Conclusion

Data in the previous sections have shown that the subordination analysis of *ki*-clauses cannot be maintained. Furthermore, we have seen that *ki*-clauses are independent expressions indicating assertoric illocutionary force.

Properties of Non-subordination	Turkish <i>ki</i> -clauses
No binding from outside	✓
No extraction from the clause	✓
Outside the scope of negation	✓
Incompatibility with focusing particles	✓
Occurrence as appositives	✓
Occurrence as unintegrated result clauses	✓
No NPI-licensing (in the rare cases where negation is allowed)	✓
Expressions with independent illocutionary force	✓

Table 2.1: Properties of *ki*-clauses indicating non-subsordination

## 2.3 Differences Between Turkish *ki* and English *that*

The discussion in section 2.2 showed us that *ki* differs from the English complementizer *that* in essential ways. In this section I illustrate that Turkish *ki* carries two additional major functions which English *that* does not.

### 2.3.1 *Ki* as a Representation of Direct Speech

As mentioned by Göksel and Kerslake (2005), when *ki* follows the verb *de-* ‘to say’, *ki* is necessarily a representation of direct speech:<sup>12</sup>

- (38) O gün Suzan bana de-miş-ti ki: ‘Artık dayan-a-m-iyor-um.’  
that day Suzan I(dat) say-PF-P.COP SUB ‘now bear-PSB-NEG-IMPF-1sg’  
“That day Suzan had said to me: ‘I can’t bear [it] any longer.”

(Göksel and Kerslake, 2005, p. 409 (22))

Equally important is the fact that *ki* does not change the referent (index) of the pronoun *I* when it occurs inside the *ki*-clause:

- (39) O gün Suzan<sub>i</sub> bana de-miş-ti-∅ ki: ‘Ben<sub>i/\*j</sub> artık  
that day Suzan I(dat) say-Perf-Past-3Sg *ki*: ‘I longer  
dayan-a-m-iyor-um.’  
bear-Abil-Neg-Prog-1Sg’  
“That day Suzan had said to me: ‘I can’t bear [it] any longer.””

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<sup>12</sup>Some glosses used by Göksel and Kerslake (2005): PF= perfective, P.COP=Past Copula, SUB= sub-ordinator, PSB=possibility

However, introducing direct speech is not a function of English *that*:

- (40) \*That day Susan had said to me *that*: ‘I can’t bear it any longer.’

This is in stark contrast to the English complementizer *that*, which can only introduce indirect speech. Moreover, whenever the pronoun *I* follows *that*, its referent cannot be the matrix subject, as (41) shows. This is in contrast with direct speech in (42).

- (41) That day Susan<sub>i</sub> had said to me<sub>j</sub> that I<sub>\*i/j</sub> have to work harder.

- (42) That day Susan<sub>i</sub> had said to me: ‘I<sub>i/\*j</sub> have to work harder.’

### 2.3.2 *Ki* as a Conjunction

Based on examples like the following, Lewis (2000) suggests that *ki* is purely a conjunction:<sup>13</sup>

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<sup>13</sup>Note that in none of the examples from (43) through (45) can the normal conjunction *ve* ‘and’ (a borrowing from Arabic) be used in Turkish.

(i) \*Kirazı yedim *ve* şeker gibi.

(ii) \*Geldim *ve* kimseler yok.

(iii) \*Baktım *ve* kapı açık.

However, omitting *ve* renders the sentences grammatical:

(i') Kirazı yedim, şeker gibi.

(ii') Geldim, kimseler yok.

(iii') Baktım, kapı açık.

- (43) Kiraz-ı ye-di-m *ki* şeker gibi.  
      cherry-Acc eat-Past-1Sg *ki* sugar like  
      'I ate the cherry, **and** found it was like sugar.'
- (44) Bak-tı-m *ki*, kapı açık.  
      look-Past-1Sg *ki* door open  
      'I looked and saw that the door was open.'
- (45) Gel-di-m *ki*, kimse-ler yok.  
      come-Past-1Sg *ki* no one-Pl not.exist  
      'I came and found there was no one there.'

The complementizer *that* does not have this function of coordinating two independent root clauses.

These data particularly show that Turkish *ki* does not function the way English *that* does, and any unified treatment of *ki* needs to account for this difference.

## 2.4 Parataxis vs. Normal Coordination

Having established that *ki*-clauses are not subordinated clauses, it remains to be determined what *ki*-clauses are. There are two options: The *ki*-clause is either part of a standard coordination construction, or it is paratactically connected to its matrix clause. Each of these options makes certain predictions regarding restriction on *ordering* and *iteration*.

### 2.4.1 Ordering Restrictions

Given that conjuncts of a ‘normal’ coordination construction are syntactically parallel, it should be possible to reverse the order of the two conjuncts. This should, however, not hold for paratactic constructions, since such clauses are linked to their matrix clause, and where such linking enforces restrictions on the ordering (de Haan, 2001, p. 27).<sup>14</sup>

- (46) a. Duy-du-m *ki* [ Buğra Londra-ya git-miş-∅ ].  
           hear-Past-1Sg that [ Buğra London-Dat go-Perf-3Sg ]  
           ‘I heard Buğra went to London.’
- b. [ Buğra Londra-ya git-miş-∅ ] (\**ki*) duy-du-m (\**ki*).  
       [ Buğra London-Dat go-Perf-3Sg ] that hear-Past-1Sg that  
       ‘I heard Buğra went to London.’
- (47) a. Tuğba o kadar hasta *ki* san-a bugün yardım ed-e-me-yecek-∅.  
       Tuğba that so ill *ki* you-Dat today help do-Abil-Neg-Fut-3Sg  
       ‘Tuğba is so ill that she cannot help you today.’
- b. Tuğba san-a bugün yardım ed-e-me-yecek-∅ (\**ki*) o kadar hasta  
       Tuğba you-Dat today help do-Abil-Neg-Fut-3Sg (*ki*) that so ill  
       (\**ki*).  
       (*ki*)  
       ‘Tuğba is so ill that she cannot help you today.’

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<sup>14</sup>Regarding (47), note, that it is possible to say the following as an independent exclamation:

- (i) Tuğba o kadar hasta *ki!*  
       Tuğba that as/much sick *ki*  
       ‘Tuğba is so sick!’

This use of *ki* in exclamations is a quite frequent:

- (ii) Ben ne yap-tı-m *ki?*  
       I what do-Past-1Sg *ki*  
       ‘What did I do?’ (almost always rhetorical)

- (48) a. Kirazı yedim *ki* şeker gibi.  
          ‘I ate the cherry and found it was like sugar.’
- b. Şeker gibi (\**ki*) kirazı yedim (\**ki*).  
          ‘It was like sugar and I ate the cherry.’

In short, Turkish *ki*-clauses have to follow their matrix clause.

### 2.4.2 Limited Iteration

Another difference between *ki* and a conjunct like *and* in English is that *and* does not impose any categorial requirements on its conjuncts. *Ki*, on the other hand, can only conjoin sentences as we have seen in the examples so far.

Like Persian, Hindi also has the C<sup>0</sup> element *ki*. Dwivedi (1994) suggested that because *ki* is of category C<sup>0</sup>, under the law of coordination it can only conjoin with another CP. In other words, since the category of *ki* is C<sup>0</sup>, it projects a CP, and requires a CP conjunct (Figure 2.1).<sup>15</sup>

Dwivedi further states that under an analysis where *ki* is a connector with those categorial features, the following facts noted in Srivastav (1991) may be accounted for:

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<sup>15</sup>See Dwivedi (1994) for an asymmetric coordination and anti-extraposition analysis. See Davison (2009), Mahajan (1990), Srivastav (1991) and Dayal (1996) for an analysis of the *ki*-clause in Hindi as base-generated as a complement to V and right-extraposed to assume its S-structure position.

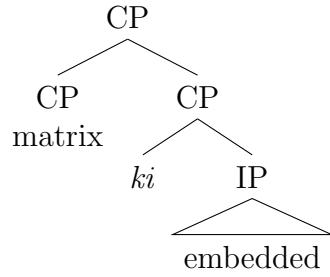


Figure 2.1: Dwivedi's (1994) proposal for Hindi *ki*

- (49) \*usNE kahaa *ki* Anu aayii aur *ki* Ravii gayaa.  
 she-E said that Anu came and that Ravi left  
 'She said that Anu came and that Ravi left.'

Turkish *ki* exhibits the same restriction as Hindi *ki* in this respect.<sup>16</sup>

There can be no two *ki*-clauses per matrix predicate, nor can two *ki*-clauses be conjoined

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<sup>16</sup>Note, however, that Turkish *ki* and Hindi *ki* are in many ways fundamentally different from one another. For example, Hindi *ki* does not seem as restricted as Turkish *ki*. Hindi *ki* can be selected by true factive predicates, indicating that they don't have an assertive character.

- (i) SudhaKo afsos nahiiN hua *ki* koii aayaa.  
 Sudha-D regret not happen that any come-Pf-m  
 'Sudha didn't regret that someone came.' (Hindi, Dwivedi 1994)

Data from extraction also shows how Turkish *ki*-clauses are different from Hindi *ki*-clauses in that the Turkish *ki* marks assertion. Dwivedi (1994) states that *ki*-clauses in Hindi, which are asymmetric co-ordinate structures, are not subject to the Coordinate Structure Constraint and Across the Board movement (ATB) is not obligatory (though expected to be grammatical):

- (ii) KisKO SalimNE ei bataayaa *ki* Rima ei pyaar kartii hai?  
 Who-A Salim-E tell-PF.0 that Rima love do-Pf.f is  
 'Who did Salim tell that Rima loves?' (Hindi, Dwivedi 1994)

In Turkish, extraction from either the matrix or the *ki*-clause is ruled out due to the assertive character of *ki* as was discussed in previous sections. Not surprisingly, ATB movement is also not possible:

by *and*:

- (50) \*Duydum [ *ki* [ *Buğra Istanbul-a gitmiş* ]] (ve) [ *ki* [ *Tuğba Izmir-e uçmuş* ] ].  
I.heard ki *Buğra* Istanbul-Dat went and ki *Tuğba* Izmir-Dat flew  
Intended: ‘I heard that *Buğra* went to Istanbul and that *Tuğba* flew to Izmir.’

The same restriction is observed in Frisian embedded root constructions that are headed by a complementizer *dat* (ECV2):

- (51) \*Pyt hie in boadskip stjoerd [ *dat hja sille truowe* ] [ *dat hja sille in hus keapje* ].  
Pyt had a message sent that they will marry that they will a house buy

According to de Haan (2001), this restriction in Frisian follows from the fact that such constructions have to be linked to their matrix clause:

“There are restrictions having to do with the fact that these constructions have to be linked to their matrix clause. It is not possible to link more than one ECV2 of a particular type to a matrix clause, for the very reason that a verb can have only one complement, a noun only one content clause, a degree phrase only one result clause, and a predicate only one causative modifier[.]”

Along the lines of Dwivedi (1994) and de Haan (2001), I argue that the reason why Turkish *ki*-clauses exhibit limited iteration is because Turkish *ki* is a connector of category

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(iii) \**Buğra kim-ei de-di-Ø ki Tuğba ei kitab-1 ver-di-Ø?*  
Buğra who-Dat say-Past-3Sg ki Tuğba book-Acc give-Past-3Sg  
Intended: ‘Who did *Buğra* say that *Tuğba* gave a book to?’

At this point, I have no explanation as to what causes such differences between Hindi and Turkish.

$C^0$ , and can only be adjoined to another CP. Crucially, it is not the syntax that constrains this distribution of *ki*, but it follows independently from the semantics/pragmatics of *ki*-clauses. As was illustrated above for Turkish, *ki*-clauses have an independent assertoric illocutionary force, and as such the function of *ki* is to conjoin two independent speech acts. The three trees in 2.2 illustrate how this analysis of *ki* explains its restrictions with respect to iteration.

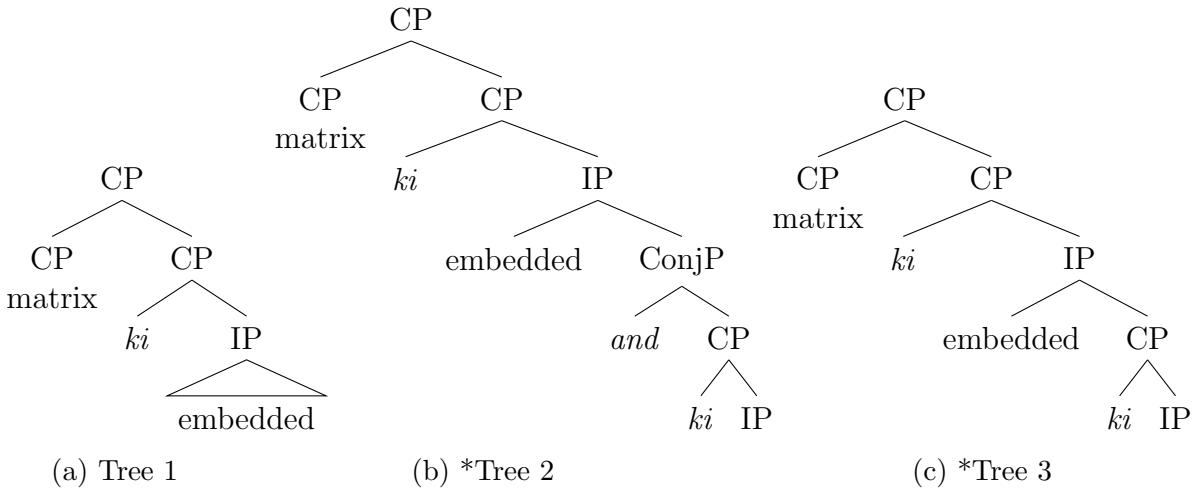


Figure 2.2: Syntactic structures

### 2.4.3 Interim Conclusion

I have shown that Turkish *ki* is neither a subordinator nor a standard coordinator. The properties of *ki* can be accounted for by an analysis of parataxis. Table 2.2 shows a list of the major properties of parataxis provided by de Haan (2001), who shows that clauses that have a complementizer yet exhibit V2 properties in Frisian (ECV2) are paratactic. As demonstrated in the sections above, Turkish *ki*-clauses exhibit all these properties listed by

de Haan (2001):<sup>17</sup>

de Haan's (2001) Major Properties of paratactic ECV2s	Turkish <i>ki</i>
general display of root phenomena	yes
obligatory occurrence outside and to the right of the matrix clause (cannot undergo topicalization nor be part of other preposings)	yes
no binding from outside ECV2s	yes
intonation unit	yes
independent focus domain	yes
(limited) iteration (matrix clause has to be a structural root)	yes
no extraction	yes

Table 2.2: Major Properties of Parataxis

Having argued that *ki*-clauses are paratactically connected to their matrix clauses, I will next give an analysis of such clauses.

## 2.5 Analysis of *ki*-clauses

So far I have shown that *ki*-clauses exhibit root clause properties, and as such have their own illocutionary force, which is assertion. I have also provided evidence that *ki* can neither be analyzed as a subordinator nor a normal coordinator. Instead, *ki*-clauses are paratactic clauses with *ki* functioning as a coordinator with categorial features.

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<sup>17</sup>Just like a Frisian ECV2 and its matrix clause, a Turkish *ki*-clause and its related matrix clause form two separate intonational units, which is indicated by a clear intonational break that occurs between the constituent clauses. (The distinctive intonational break in Turkish *ki*-clauses occurs before *ki* in relative and causative clauses, and after *ki* in all other constructions.) These units have their own focus domain; that is, each clause has at least one focus constituent, which is not a necessary property of integrated clause. Although a *ki*-clause and its matrix clause are separate intonational units, it should be noted that there is no pitch fall at the end of the matrix clause (neither in Turkish *ki*-clauses nor in Frisian ECV2) that would indicate the end of the independent sentence. See de Haan (2001) for data regarding Frisian.

Because *ki*-clauses are subject to selectional requirements due to their assertoric nature, it is important to have the means to capture the link that a *ki*-root CP has with a position inside the matrix clause. Furthermore, the matrix verb that takes a *ki*-clause has to have an object. In order to capture this relationship, Torrego and Uriagereka's (2002) derivational analysis for Spanish *como*-clauses, which they analyze as paratactic clauses, is adopted.<sup>18</sup>

Torrego and Uriagereka (2002) state that *como*, as opposed to the hypotactic *que*, has a far more restricted distribution: clauses that are introduced by *como* cannot be subjects (52), topics, or left-dislocated constituents:

- (52) Verás/te darás cuenta *como* tu madre llevaba razón.  
 ‘You will see how your mother was right.’

Nor can they take nouns/adjectives (53) or prepositions (54):

- (53) Estoy harto ?(de) que/\**como*...  
 I'm fed up                   that/\*how
- (54) Para que/\**como*  
 so                           that/\*how

Several verbs, such as volitionals, factives, and causatives also disallow *como*-clauses (55):

- (55) Quiero/lamento/hice que/\**como*...  
 I want/regret/caused that/\*how.

Overt *wh*-movement is not possible with *como*-clauses either:

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<sup>18</sup>See Yoon (2011) for an analysis of Korean paratactic clauses adopting Torrego and Uriagereka (2002).

- (56) qué os enseñó que/\**cómo* estaba escribiendo?  
 What did s/he show to you that/\*how s/he was writing?

Furthermore, predicate raising across *como* gives rise to ungrammaticality:

- (57) A punto de llorar vieron que/\**cómo* estaba!  
 Ready to cry they saw that/\*how s/he was!

Similarly, NEG-raising and polarity items show opacity of the *como*-clause:

- (58) No verás que/\**como* diga la verdad jamás.  
 Not will-see.you that/\*how say.s/he the truth ever

Moreover, a *que* clause allows variable binding (59a), but a *como*-clause does not (59b).

- (59) a. Nadie ve que pro es tonto.  
 Nobody sees that he is stupid
- b. Nadie ve *como* pro es tonto.  
 Nobody sees how he is stupid

Torrego and Uriagereka (2002) argue that the structure of the *como*-clause shown in (60) is akin to the ‘truth’ clause, given here in (61):

- (60) Verás/te darás cuenta como tu madre ilevaba razón.

‘You will see how your mother was right.’

- (61) ‘You will realize/see the truth of your mother being right.’

However, for Torrego and Uriagereka (2002) an important difference between the clausal

dependents of *como* and those of nominals such as *la verdad* ‘the truth’ is that in the latter case the dependent clause is associated with the genitive marker *de*, whereas in the case of *como* no such association exists:

- (62)    a. ... la verdad \*(*de*) que la tierra es redonda  
          ... the truth (of) that the Earth is round
- b. ... *como* (\**de*) la tierra es redonda  
          ... how (of) the Earth is round

This structural difference, according to Torrego and Uriagereka (2002), is very much like the following one:

- (63)    a. ... the sister \*(*of*) John’s
- b. ... John’s (\**of*) sister

Because *John’s* is lower in (63a) than it is in (63b), assuming a Kayne-Szabolcsi analysis, Torrego and Uriagereka (2002) conclude that the dependent clause in (63b) is also higher than the one in (63a). Therefore, they postulate a strong feature in structures with *como*, but not for structures with *la verdad*. In other words, the idea is that whereas the D element which is hypothesized for *como* structures selects for a functional category with a strong feature, the same is not the case for the D heading other structures. This proposal led Torrego and Uriagereka (2002) to make the assumption that the strong feature of the functional category hypothesized for *como* is also a licenser for a null *pro*.<sup>19</sup> Following Lebeaux (1988), they suggest that a generalized transformation causes paratactic dependencies: in the initial

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<sup>19</sup>In other words, dependent clauses introduced by *como* may have a null *pro*-like expression, licensed in discourse, just as null pronominals are in general (Torrego and Uriagereka, 2002, p. 259).

phrase, the *pro*-clause occupies the place which is otherwise taken by an entire clause. It is this item that enters into the syntactic derivation (engages in checking just as any other syntactic formative would). However, at LF there are two options, namely either the *pro* remains as such, or else a separate sentence (a separate text) substitutes into the *pro*-clause (Figure 2.3).

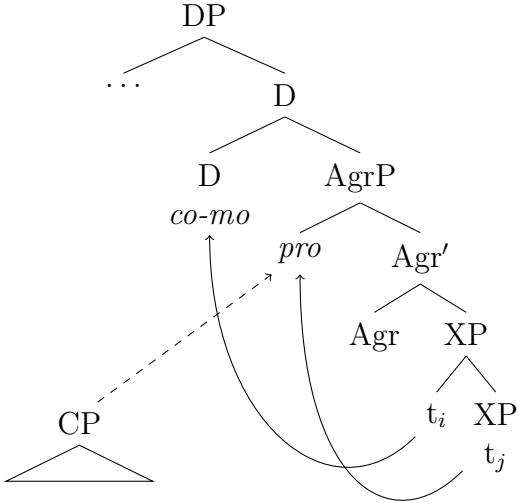


Figure 2.3: Derivational Analysis of Paratactic *como*-Clauses (Torrego and Uriagereka, 2002)

Based on the parallel with *como*-clauses in Spanish, Yoon (2011) assumes a syntactic derivation involving root transformation for subjunctive and evaluative negation (EN) constructions in Korean. She states that such an analysis would account for why a structural case cannot attach to subjunctive complements, EN-complements and non-EN-complements: the matrix verb in a parataxis construction takes a *pro* complement to which it assigns ACC, hence no ACC can be assigned to the clause. Adopting Torrego and Uriagereka's (2002) derivational analysis of parataxis, Yoon (2011) assumes the structure provided in Figure 2.4 for Korean paratactic Evaluative Negation complements.<sup>20</sup>

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<sup>20</sup>Yoon (2011) states that the reason why the paratactic structure does not follow the ‘no tangling’ principle is due to the word order in Korean. She suggests that the current structure is to some extent in line with approaches assuming multidominance and subject to a condition in Korean that requires that the

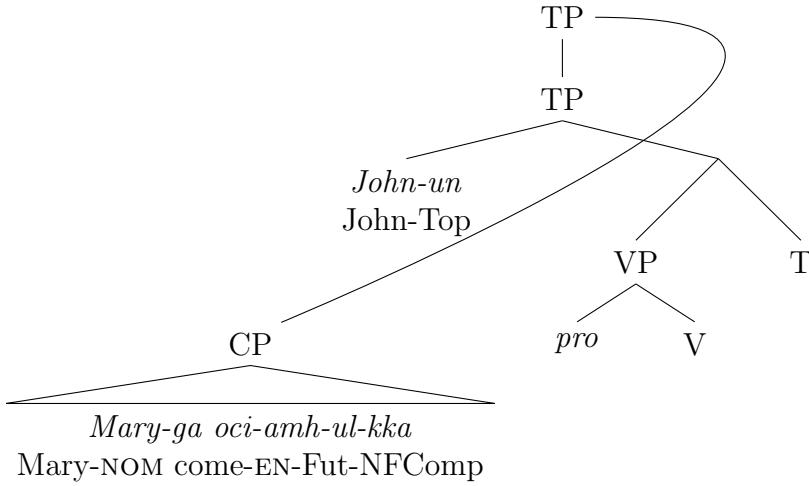


Figure 2.4: Derivational Analysis of Korean Paratactic Evaluative Negation Complements (Yoon, 2011)

To account for the link that a *ki*-clause has with a position inside the matrix clause and the fact that the matrix verb that takes a *ki*-clause has to have an object, I adapt Torrego and Uriagereka's (2002) and Yoon's (2011) derivational analysis of parataxis and assume the structure in Figure 2.5, as applied on example (1) repeated here as (64):<sup>21</sup>

- (64) Teoman-Ø san-iyor-Ø [ *ki* Mete-Ø okul-a git-ti-Ø ].  
 Teoman-Nom believe-Prog-3Sg [ *ki* Mete-Nom school-Dat go-Past-3Sg ] .  
 'Teoman believes that Mete went to school.'

The proposed analysis of *ki*-clauses has the following specifics:

- (i) The *ki*-clause is associated with a *pro*-element, a sister to the assertive predicate, which enters into the syntactic derivation and engages in checking just like any other syntactic

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paratactic CPs be linearized adjacent to the *pro* to which they are linked.

<sup>21</sup>For now, I will leave aside an account for constructions of *ki* that do not require a derivational analysis, such as causatives.

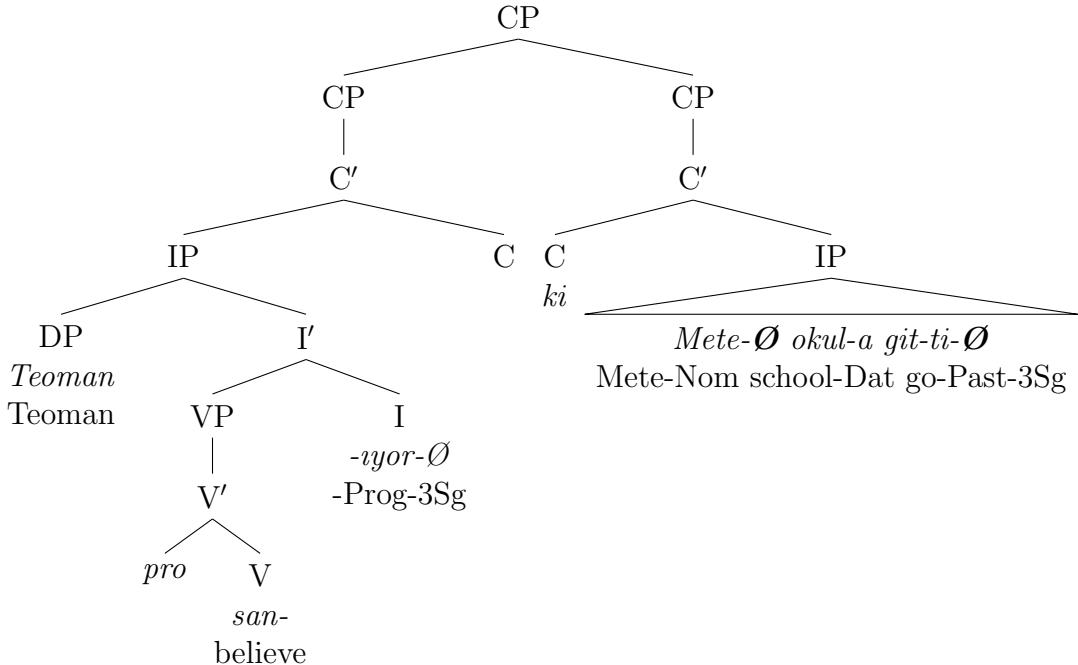


Figure 2.5: Proposed structure for the Turkish *ki*-clause (64)

element.<sup>22</sup>

- (ii) The *ki*-clause is neither an instance of a subordinated nor of a standardly coordinated constituent. Instead, it is paratactically connected to its matrix clause, where *ki* is a connector of category  $C^0$ , able to conjoin only with another CP.
- (iii) The *ki*-clause has an independent assertoric illocutionary force, which explains the following further properties:
  - (a) with (ii), this amounts to *ki* having the function of conjoining two independent speech acts;
  - (b) the *ki*-clause has semantically/pragmatically-driven selectional restrictions on the

<sup>22</sup>I leave it to further research to determine the exact mechanism that links the *pro* element with the *ki*-clause. However, I assume that the relation between *pro* and *ki* is somewhat analogous to the mechanism that links a correlative nominal element (such as *es* in German, or *it* in English) and a right-peripheral full clausal argument that is linked to this nominal element.

matrix predicate.

- (iv) This analysis of the *ki*-clause accounts for...
  - (a) the impossibility of negating and questioning *ki*-clauses due to the independent assertoric illocutionary force that it has (see section 2.2.2 and 2.2.3). The independent assertoric illocutionary force of the *ki*-clause also accounts for the clause's incompatibility with presupposition triggers (see section 2.2.5) and its inability to occur in topic/subject positions (see section 2.2.4).
  - (b) the fact that the causative *ki*-clause is outside the scope of a negative phrase in the matrix clause (see example (30) and the tree in figure 2.6).
  - (c) why quantifiers cannot bind the pronoun inside the *ki*-clause as the necessary c-command relation does not obtain (see example (31) and the tree in figure 2.7). Next, the absence of the c-command relation between the *ki*-clause and its matrix clause also accounts for why focusing particles in the matrix clause cannot select for a *ki*-clause that hosts the focused constituent (see example in (27) and the tree in figure 2.8). Finally, the same explanation holds for why NPIs within the *ki*-clause lead to ungrammaticality (see example (ii) in footnote 6 and the tree in figure 2.9).
  - (d) why *ki*-clauses may occur as appositives, which are known to behave like coordinated root clauses (see section 2.2.9).
  - (e) the ordering restriction imposed on *ki*-clauses and their inability to reiterate (see example (50)).

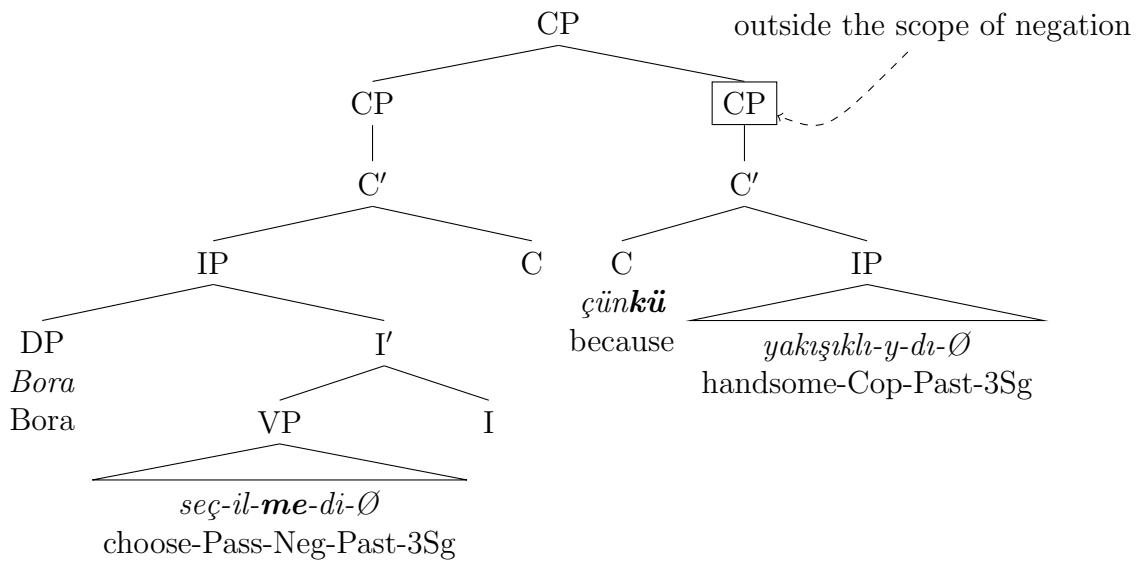


Figure 2.6: Causative *ki*-clauses, example (30)

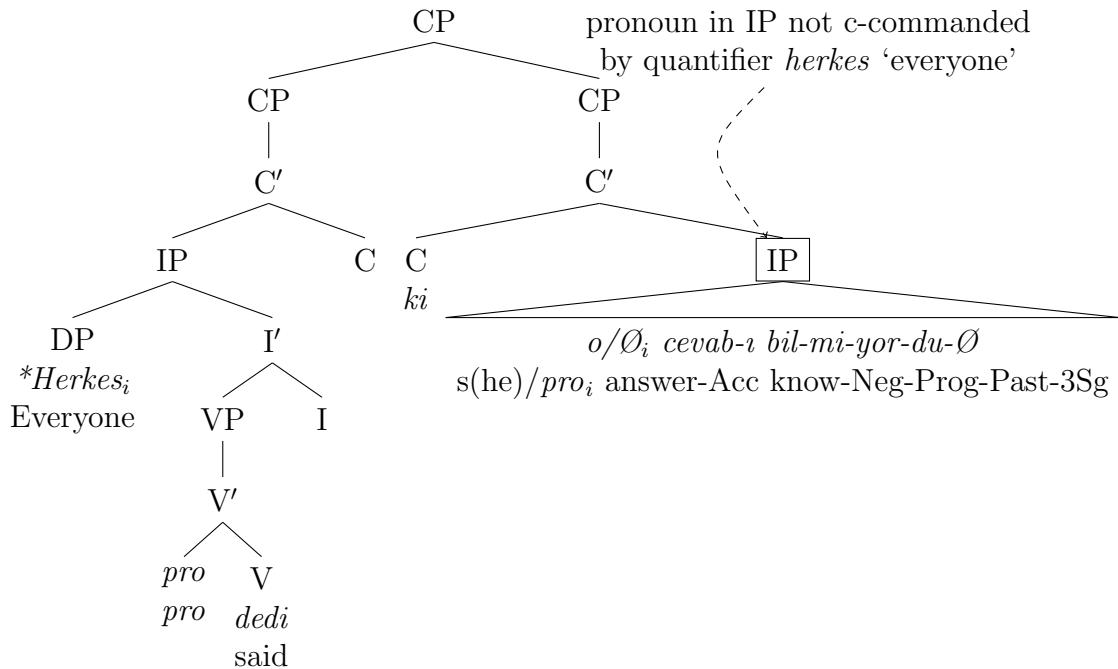


Figure 2.7: Quantifier binding and *ki*-clauses, example (31)

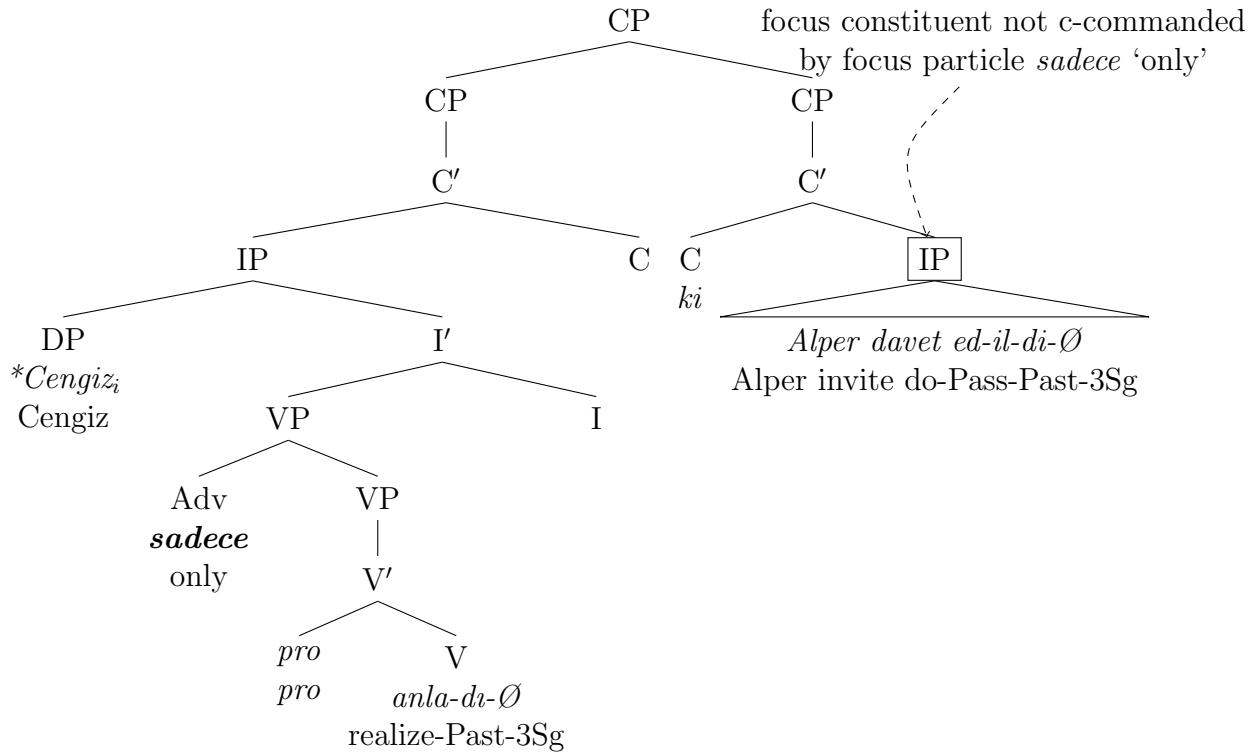


Figure 2.8: Focusing adverbs and *ki*-clauses, example (27)

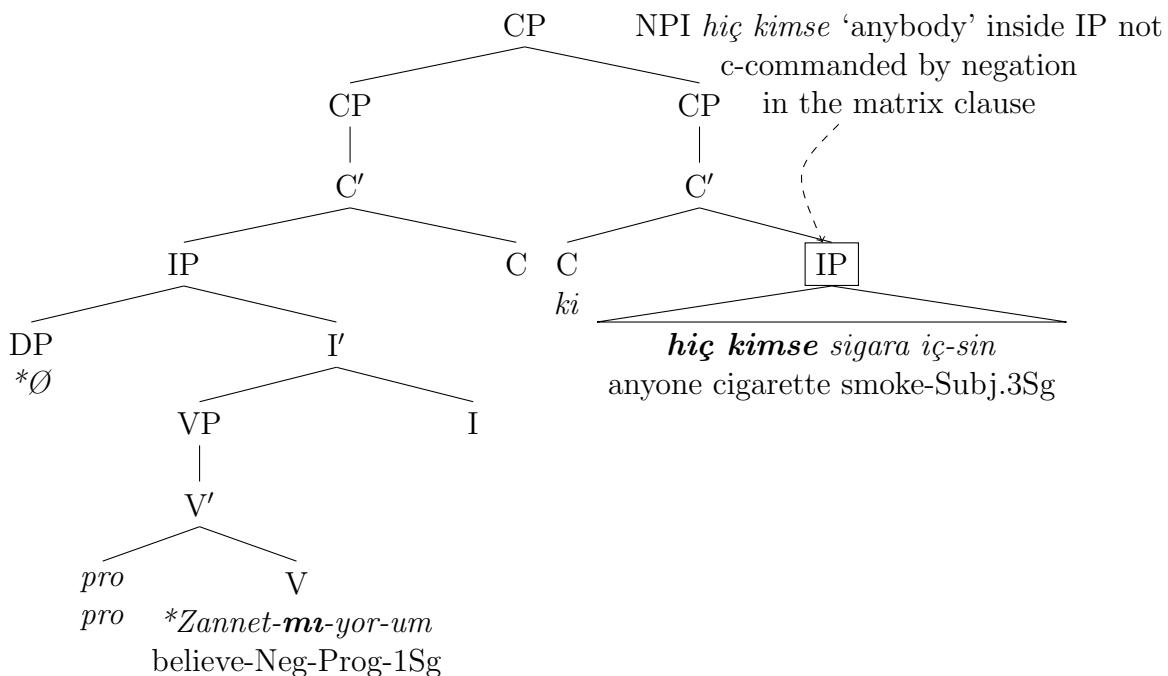


Figure 2.9: NPI-licensing and *ki*-clauses, example (ii) in footnote 6

## 2.6 Previous Analyses

As mentioned in previous sections, the general view in the literature is that *ki* is a subordinator (Kornfilt, 1997, 2005b; Göksel and Kerslake, 2005). Moreover, *ki*-clauses are assumed to be analogus to an Indo-European style of complementation (Kornfilt, 1997, 2005b; Göksel and Kerslake, 2005).<sup>23</sup> This is perhaps due to the fact that *ki* is borrowed from Persian. As further suggested by Kornfilt (2005b), *ki*-clauses in Turkish are not adjoined to clauses, but are rather base-generated in their surface position. She argues that because the CPs are head-initial, the VPs that they are attached to should be head-initial, too. Given the direct complement status of the CPs, they would be sisters of the verb. The example in (65), where the complement clause that is introduced by *ki* can't precede the matrix verb (i.e., *SOV* order with the *ki*-clause as object is impossible) is given for further evidence for the view that for such clauses, *SVO* order is the only, and thus basic order, and that the clause is the structural sister of the matrix verb:

- (65) \*Sanık sadece [ *ki* [ hakim uyuyakal-mış ] ] farket-ti.  
accused only that judge fall asleep-EpPast notice-Past  
'The accused only noticed that the judge had fallen asleep.' (Kornfilt, 2005b)

Based on the discussion in previous sections, the subordination analysis can be safely rejected.

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<sup>23</sup>According to Göksel and Kerslake (2005), a *ki*-clause “has the effect of highlighting the main predicate, thus drawing attention to the status of what is about to be uttered: an obvious fact, a surmise on the part of the speaker, a desire, etc.” (p. 409). *Ki*-structures are also used by speakers “as an organizational device to gain time for articulating the substantive content of their communication” (Göksel and Kerslake, 2005, p. 409). Note that Göksel and Kerslake’s (2005) informal description of *ki*-clauses is consistent with the view that *ki*-clauses are independent expression with an assertoric force.

## 2.7 Conclusion

I have shown that *ki*-clauses are paratactically connected to their matrix clauses, where the role of the so-called complementizer *ki* is to conjoin two independent speech acts. In particular, *ki* is shown to be a morphological marker of assertion, where the embedded root clauses introduced by *ki* are expressions that have an illocutionary force of their own. This analysis of *ki* not only accounts for the otherwise peculiar properties of *ki*-clauses, but also demonstrates why this particular set of properties is not simply an accidental result of foreign origin. In fact, the observed set of properties of the Turkish *ki*-clauses is not an isolated phenomenon cross-linguistically. Many of the properties of Turkish *ki*-clauses can be observed as clusters in languages as diverse as Frisian (embedded V2 clauses with a complementizer; de Haan (2001)) and Korean (embedded root clauses; Yoon (2011)).

CHAPTER 3

**“FINITE COMPLEMENT CLAUSES” REVISITED: AN EMBEDDED ROOT**

**CLAUSE ANALYSIS**

### 3.1 Introduction

This chapter provides an account for the syntactic/semantic/pragmatic properties of the so-called ‘fully verbal and finite complement clause’ (henceforth FCC) in Turkish (1).<sup>1</sup>

*‘Fully Verbal, Finite Complement Clause’ (FCC)*

- (1)    Kaan-Ø [ Bilge-Ø git-ti-Ø ] san-iyor-Ø.  
      Kaan-Nom [ Bilge-Nom go-Past-3Sg ] believe-Prog-3Sg  
      ‘Kaan believes that Bilge went away/ left.’

Unlike *ki*-clauses, which are restricted to the postverbal position, these FCCs must occur in the immediate preverbal position, adhering to the SOV pattern of Turkish. Furthermore, as seen in (1), such clauses have a subject marked with the nominative case and the agreement on the verb is verbal. As such, they are unlike the more common nominalized complement clauses (henceforth NCC) (2), in which the subject has genitive case and the agreement on the verb is nominal:

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<sup>1</sup>These clauses have also been described as *direct complement clauses* (George and Kornfilt, 1981), *structure C clauses* (Kennelly, 1992), *finite complements* (Zidani-Eroğlu, 1997), *fully finite complement clause with a null C* (Şener, 2008).

### *Nominalized Complement Clause*

- (2)    Kaan-Ø [ Bilge-**nin** git-tiġ-**in** ]-**i** san-iyor-Ø.  
Kaan-Nom [ Bilge-**Gen** go-DIK-**3SgPoss** ]-**Acc** believe-Prog-3Sg  
'Kaan believes that Bilge went away/left.'

This chapter provides a novel analysis for clauses such as (1). It is argued that the ‘finite complement clause’ is simply a form of the *assertive* (non-presuppositional) clause in Turkish. The claim is based on an extension of the Mapping Hypothesis (Diesing, 1992) to CPs, where correspondences are noted between the behavior of CP complements and that of NP objects.

This major claim can be broken into three components, for which evidence is presented throughout the chapter:

- (i) ‘Finite Complement Clauses’ are embedded root clauses (henceforth, ERCs).
- (ii) Root clauses (including ECRs) in Turkish are assertions—they always introduce new information.
- (iii) The distribution of object ERCs (assertive CPs) is identical to the distribution of “bare object NPs” (existential NPs), where both are found exclusively within the nuclear scope of the quantification structure. The distribution of object nominalized clauses is identical to the distribution of overtly accusative-marked NPs, where both enjoy much greater freedom with respect to the positions of a clause in which they may occur.

It is shown here that Turkish ERCs share core features with their counterparts in other languages (notably V2 in Germanic). Various peculiar properties of such clauses follow from their status as ERCs and cannot be explained by their property of being ‘finite’ and/or ‘verbal’. Accusative marked subjects of so-called ‘finite complement clauses’ will be discussed

as well, as data from such constructions provide further evidence that accusative-marked subjects of ERCs always result from an information structure-related movement and are marked as such due to their final surface position, namely that of the matrix verb's object. In other words, the accusative-marked subject phenomenon is completely reduced to the fundamentals of the proposed account. Finally, the discussion to follow will have an important implication for Turkish syntax: contra George and Kornfilt (1981), it is argued that agreement (and its overt expression) on the verb is not what defines finiteness in Turkish.

In section 3.2, the basic properties of FCCs such as in (1) are provided and it is shown why the term 'finite complement clause' falls short and why the term ERC is the correct description. Section 3.4 points out the parallel behavior of such ERCs with bare NP objects, and shows how various properties of such clauses can be accounted for by an extension of Diesing's (1992) Mapping Hypothesis. Section 3.5 provides a novel account of the accusative-marked subjects in embedded root clauses. Section 3.6 concludes the chapter.

### 3.2 Basic Properties of ERCs

The aim of this section is twofold. One is to show that clauses referred to as 'finite complement clauses' in the literature are best described as ERCs. The other is to motivate the claim that ERCs are assertions associated with new information, and structurally always within the nuclear scope of their matrix clause. To this end, I will list and discuss some of the essential properties of these clauses, some of which have not been discussed or mentioned in the literature before.

### 3.2.1 Formal Similarity to Root Clauses

The embedded clause in (1), repeated here as (3), is formally indistinguishable from the Turkish matrix clause given in (4). Both exhibit nominative subjects and verbal agreement forms.

#### *Embedded Root Clause*

- (3)    Kaan-Ø [ Bilge-Ø git-ti-Ø ] san-iyor-Ø.  
Kaan-Nom [ Bilge-Nom go-Past-3Sg ] believe-Prog-3SgV  
'Kaan believes Bilge went away/left.'

#### *Matrix Clause*

- (4)    Bilge-Ø git-ti-Ø.  
Bilge-Nom go-Past-3Sg  
'Bilge went away/left.'

This property of the ERC is in clear contrast to the nominalized embedded clause, where the subject is marked with the genitive and the agreement on the verb is from the nominal paradigm, as shown in (2), repeated here as (5):

#### *Nominalized Clause*

- (5)    Kaan-Ø [ Bilge-nin git-tig-in ]-i san-iyor-Ø.  
Kaan-Nom [ Bilge-Gen go-DIK-3SgPoss ]-Acc believe-Prog-3Sg  
'Kaan believes that Bilge went.'

### 3.2.2 No Case-Marking

A crucial difference between ERCs and nominalized clauses is that the former are never case-marked, whereas the latter necessarily receive case.

#### *Embedded Root Clause*

- (6)    Kaan-Ø [ Bilge-Ø git-ti-Ø ] san-iyor-Ø.  
          Kaan-Nom [ Bilge-Nom go-Past-3Sg ] believe-Prog-3Sg  
          ‘Kaan believes Bilge went away/ left.’

#### *Nominalized Clause*

- (7)    Kaan-Ø [ Bilge-nin git-tiğ-in ]-i san-iyor-Ø.  
          Kaan-Nom [ Bilge-Gen go-DIK-3SgPoss ]-Acc believe-Prog-3Sg  
          ‘Kaan believes that Bilge went.’

This absence of clausal case marking will become especially relevant when ERCs are compared with (bare) object NPs in section 3.4.

### 3.2.3 Selectional Restrictions

Another crucial difference between ERCs and nominalized clauses is that every predicate that selects an ERC can also select a nominalized clause, but not vice versa.<sup>2</sup> ERCs are selected by a very small subset of predicates, those which are both non-factive and assertive:

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<sup>2</sup>This is analogous to the case in English (or German), where every predicate can take a *that*-clause (or a *dass*-clause in German), but not every predicate allows for complementizer deletion.

- (i) Verbs of belief: *sanmak* (believe, assume, suppose), *farzetmek* (assume/ suppose), *varsaymak* (suppose), *zannetmek* (believe, assume), . . .

- (8)    Kaan-Ø [ Bilge-Ø git-ti-Ø ] san-ıyor-Ø.  
       Kaan-Nom [ Bilge-Nom go-Past-3Sg ] believe-Prog-3Sg  
       'Kaan believes Bilge went.'

- (ii) Verb ‘to say’ *de-mek*: When used with this verb, the embedded clause is necessarily a representation of direct speech, and the pronoun ‘I’ in the embedded clause can only refer to the matrix subject (10).<sup>3,4</sup>

- (9)    Kaan-Ø [ Bilge-Ø git-ti-Ø ] de-di-Ø.  
       Kaan-Nom [ Bilge-Nom go-Past-3Sg ] say-Past-3Sg  
       'Kaan said Bilge left/went away.'

- (10)    Kaan-Ø [ ben-Ø git-ti-m ] de-di-Ø.  
       Kaan-Nom [ I-Nom go-Past-1Sg ] say-Past-3Sg  
       'Kaan<sub>i</sub> said I<sub>i/\*j</sub> left/went away.'

The situation in nominalized clauses is different. Compare (10) with the nominalized

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<sup>3</sup>I argue that constructions such as in (10) are not cases of indexical shifting, but are simply quotations. This argument is based on several tests adopted from Shklovsky and Sudo (2013). For example, embedded clauses cannot be non-verbatim, and they may not contain a wh-phrase taking the matrix scope together with shifted indexicals. However, see Özyıldız (2012) who argues that 1st person overt and null pronominal indexicals in finite complement clauses (clauses I argue to be embedded root clauses) shift (under *de-* ‘say’). Also see Şener and Şener (2011), who argue that null 1st person pronominal subjects finite complement clauses allow a shifted reading (under *san-* ‘think, believe’), while their overt counterparts do not.

<sup>4</sup>Note that the parallel with complementizer deletion in English does not hold here. The pronoun ‘I’ in complementizer deletion contexts may refer to the matrix subject or the speaker (p.c. Diesing):

- (i)    Bert<sub>i</sub> said [ I<sub>i/j</sub> went away ]

clause in (11), where the pronoun *ben* ‘I’ cannot be bound by the matrix subject:

- (11)    Kaan-Ø [ ben-im git-tiġ-im ]-i    söyle-di-Ø.  
       Kaan-Nom [ I-Gen go-DIK-1SgPoss ]-Acc say-Past-3Sg  
       ‘Kaan<sub>i</sub> said that I<sub>\*i/j</sub> left/went away.’

(iii) *bil-mek* ‘to know’: The verb *bil-* ‘to know’, although (semi)factive, can select a root clause. However, when *bil-* ‘to know’ takes a root clause, it does not have a factive/presuppositional interpretation, but necessarily receives an epistemic interpretation instead. In other words, when *bil-* ‘to know’ takes a root clause, the content of the proposition in the root clause cannot be part of the common ground. To show that this is indeed the case, I present data involving prominence patterns of both embedded root clauses and nominalized clauses. First, we take a look at constructions with nominalized embedded clauses selected by *bil-* ‘to know’. The nominalized clauses in (12) and (13) are identical in structure. The only difference between them is that in (12) the highest prominence is on the matrix verb, whereas in (13) the highest prominence is on the embedded verb:<sup>5</sup>

- (12)    Kaan<sub>1</sub> [ *pro*<sub>1/2</sub> kazan-diġ-in ]-i    BİL-İYOR-Ø. → **factive**  
       Kaan [ *pro* win-DIK-3SgPoss ]-Acc know-Prog-3Sg  
       ‘Kaan knows that he won.’ (Kaan did indeed win and he knows this.)

- (13)    Kaan<sub>1</sub> [ *pro*<sub>1/2</sub> KAZAN-DIĞ-IN ]-i    bil-iyor-Ø. → **non-factive**  
       Kaan [ *pro* win-DIK-3SgPoss ]-Acc know-Prog-3Sg  
       ‘Kaan knows/thinks that he won.’ (It’s possible that Kaan is wrong, that he did not win).’

Despite identical in structure, the sentences have different meanings, which is caused by the difference in the prominence patterns. In (12), where the highest prominence

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<sup>5</sup>Small capital letters indicate stress.

is on the matrix verb *bil-* ‘to know’, the content of the proposition of the embedded nominalized clause is necessarily part of the common ground, presupposed. Hence, *bil-* ‘to know’ is factive in this case. In the identical sentence in (13), the highest prominence is on the embedded verb. Here, the content of the proposition of the embedded nominalized clause is not part of the common ground. The verb *bil-* ‘to know’ is necessarily epistemic in this case, and has the meaning of ‘think’ or ‘believe’. Next, we examine ERCs (examples (14) and (15)). As mentioned above, the verb *bil-* ‘to know’ can take an ERC. However, if ERCs are really assertive, as is claimed here, they should not be compatible with matrix *bil-* ‘to know’ if *bil-* receives highest prominence (as in (12)) and thereby forcing an interpretation in which the proposition of the ERC is part of the common ground. However, ERCs should be compatible with *bil-* if *bil-* does not receive highest prominence (as in (13)), as in such cases *bil-* is necessarily epistemic, and the proposition in the ERC is not part of the common ground. This prediction is indeed borne out:

- (14) #Kaan [ Bilge kazan-di-Ø ] BİL-İYOR-Ø. → **#factive**  
           Kaan [ Bilge win-Past-3Sg ] know-Prog-3Sg  
           Intended: ‘Kaan knows that Bilge won.’
- (15)   Kaan [ Bilge KAZAN-DI-Ø ] bil-iyor-Ø.      → **non-factive**  
           Kaan [ Bilge win-Past-3Sg ] know-Prog-3Sg  
           ‘Kaan believes Bilge won.’ / ‘Kaan knows/believes Bilge to have won.’

To conclude, we see that even though the verb *bil-* ‘to know’ is a factive predicate, when it selects for an ERC, it is necessarily epistemic. Thus, we conclude that no factive/presuppositional interpretation with ERCs is possible.

- (iv) Volitional *iste-mek* ‘to want’: The volitional *iste-mek* ‘to want’ is also able to take a root clause. However, it can only do so under the condition that the verb in the ERC

appears in its subjunctive form:<sup>6</sup>

### *Embedded Root Clause*

- (16) Kaan [ Bilge kazan-sın ] isti-yor-Ø.  
           Kaan [ Bilge win-3Sg.Subjunctive ] want-Prog-3Sg  
           ‘Kaan wants Bilge to win.’

The subjunctive form in the ERC is the same as the subjunctive form that occurs in matrix clauses:

### *Matrix Root Clause*

- (17) Bilge kazan-**sın**.  
 Bilge win-3Sg.Subjunctive  
 'Bilge shall/should win.'

Note that the subjunctive form that occurs in matrix clauses and ERCs is distinct from the one that occurs in nominalized clauses:

### *Nominalized Clause, Subjunctive*

- (18) Kaan [ Bilge-nin kazan-**ma-sın** ]<sub>-1</sub> isti-yor-∅.  
           Kaan [ Bilge-Gen win-MA-3SgPoss ]-Acc want-Prog-3Sg  
           ‘Kaan wants that Bilge wins.’

<sup>6</sup>Note that volitional predicates other than *iste-mek* ‘to want’ cannot take an ERC, regardless of whether the embedded root verb is in the subjunctive or not:

(i) \*Kaan [ Bilge kazan-sin/-acak] **diliyor/tercih ediyor/umuyor/emrediyor/ arzu ediyor...**  
 Kaan [ Bilge win-3Sg.Subj/-Fut] wishes/prefer/hope/order/demand/**ask, desire**  
 Intended: 'Kaan wishes/prefers/hopes/orders/demands/desires Bilge to win.'

I have no explanation as to why this should be the case, and will leave this issue aside for now.

The fact that ERCs can never occur with factive, presuppositional predicates is one of the indications that such clauses exclusively appear in the lowest partition of the quantification structure, namely the nuclear scope of the matrix clause.<sup>7</sup>

### 3.2.4 Restriction on Negation

The main clause predicate that selects an ERC cannot be negated:

- (19) Ben [ Kayra-Ø kazan-di-Ø ] bil-iyor-um.  
       I     [ Kayra-Nom win-Past-3Sg ] know-Prog-1Sg  
       'I know/believe [Kayra won].'

- (20) \*Ben [ Kayra-Ø kazan-di-Ø ] bil-**mi**-yor-um.  
       I     [ Kayra-Nom win-Past-3Sg ] know/believe-Neg-Prog-1Sg  
       Intended: 'I don't know/believe [Kayra won].'

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<sup>7</sup>Further note that not only do predicates that select for an ERC have to be non-factive/non-presuppositional, but they also have to be assertive. An example with a non-factive, non-assertive predicate not being able to take a root clause due to its non-assertiveness is given below:

- (i) \*[ Kaan git-ti-Ø ] mümkün.  
       [ Kaan go-Past-3sg ] possible  
       Intended: 'It's possible that Kaan went away/left.'

For the sentence in (i) to be grammatical, it has to be nominalized:

- (ii) [ Kaan-in git-me-si ]-Ø mümkün.  
       [ Kaan-Gen go-MA-3Poss ]-Nom possible  
       'It's possible for Kaan to go away/ leave.' or: 'That Kaan left is possible.'

Though, the ungrammaticality of (i) might be due to the 'fixed position' condition to be mentioned in section 3.2.7.

- (21) Mert-Ø [ Kayra-Ø git-ti-Ø ] san-iyor-Ø.  
Mert-Nom [ Kayra-Nom go-Past-3Sg ] believe-Prog-3Sg  
Intended: 'Mert believes Kayra left.'

- (22) \*Mert-Ø [ Kayra-Ø git-ti-Ø ] san-mi-yor-Ø.  
Mert-Nom [ Kayra-Nom go-Past-3Sg ] believe-Neg-Prog-3Sg  
Intended: 'Mert doesn't believe Kayra left.'

This restriction on negation is expected, as a negated matrix predicate would entail that the content of the proposition in the ERC is already part of the common ground, which is not compatible with the assertive, non-presuppositional character of such clauses.

There are some exceptions to this particular restriction, which are provided in examples (23)-(25) and follow the criteria in table 3.1.

1	<ul style="list-style-type: none"> <li>(a) the matrix predicate is <i>san-mak</i>, <i>zannet-mek</i>,... 'to believe';</li> <li>(b) the matrix subject is marked for 1<sup>st</sup> person;</li> <li>(c) the root clause is in the <i>subjunctive</i>;  See example (23).</li> </ul>
2	<ul style="list-style-type: none"> <li>(a) the matrix predicate is <i>istemek</i> 'to want';</li> <li>(b) the root clause is in the <i>subjunctive</i>;  See example (24).</li> </ul>
3	<ul style="list-style-type: none"> <li>(a) the matrix predicate is <i>a verb of saying</i> (i.e., in cases where a quotative interpretation emerges);</li> <li>(b) the root clause is in the <i>indicative</i>;  See example (25).</li> </ul>

Table 3.1: Exceptions to Restriction on Negation

- (23) [ Kayra kazan-mış ol-sun ] san-mi-yor-um/-uz.  
[ Kayra win-Rep.Past Be-3Sg.Subj ] believe-Neg-Prog-1Sg/1Pl  
'I/we don't believe that Kayra won.'

- (24) [ Kayra kazan-sın ] iste-me-m.  
[ Kayra win-3Sg.Subj ] want-Neg-1Sg  
'I don't want for Kayra to win'

- (25) [ Kayra kazan-di-Ø ] de-me-di-m.  
       [ Kayra win-Past-3Sg ] say-Neg-Past-1Sg  
       'I didn't say "Kayra won".'

The issue as to why negation of these specific cases where the ERC is in the subjunctive is left aside for now.<sup>8</sup> However, note that negated epistemics may select for an embedded main clause that is in the subjunctive only is not a phenomena restricted to Turkish. In German, too, V2 is ruled out under negation (26) unless the subordinated clause is in the subjunctive (28)(Meinunger, 2006):

- (26) \*Ich glaube **nicht**, er hat recht.  
       I believe not, he has right  
       'I don't believe he's right.' *Negated indicative embedded V2*
- (27) Ich glaube **nicht**, dass er recht hat.  
       I believe not, that he right has  
       'I don't believe he's right.' *Negated dass-clause*
- (28) Glaube ja **nicht**, du kämst ungeschoren davon!  
       believe PRT not you come-Subj unshorn away  
       'Don't think that you'll get off lightly!' *Negated subjunctive embedded V2*

A related phenomenon might be the case of polarity subjunctives, where the subjunctive can be triggered in the embedded clause if the matrix verb, which otherwise selects the indicative, is negated (see Giannakidou (1995), Quer (1998), Siegel (2009), among others).

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<sup>8</sup>A possible explanation as to why embedded root clauses can be negated when in the subjunctive might be because subjunctive propositions cannot be part of the common ground, i.e., when the ERC is in the subjunctive, the content of its proposition can never be part of the common ground. Thus, negating an ERC that is in the subjunctive does not entail that its (subjunctive) proposition is given, or part of the common ground.

### 3.2.5 Incompatibility with Presupposition Triggers

It was shown above that factive predicates are not compatible with ERCs. Factives, however, are not the only presupposition triggers that exhibit this incompatibility. Presupposition triggers, such as ‘even’, ‘also’, ‘too’ are also banned from occurring with ERCs:

*Embedded Root Clause with bile ‘even’:*

- (29) \*Ulaş [ Ece-Ø Londra-ya git-ti-Ø ] **bile** bil-iyor-Ø.  
           Ulaş [ Ece-Nom Londra-Dat go-Past-3Sg ] even know-Prog-3Sg  
           Intended: ‘Ulaş even knows that Ece went to London.’
- (30) \*Ulaş **bile** [ Ece-Ø Londra-ya git-ti-Ø ] bil-iyor-Ø.  
           Ulaş **even** [ Ece-Nom Londra-Dat go-Past-3Sg ] know-Prog-3Sg  
           Intended: ‘Even Ulaş knows that Ece went to London.’

*Embedded Root Clause with de/da ‘also, too’*

- (31) \*Ulaş **da** [ Ece-Ø Londra-ya git-ti-Ø ]  
           Ulaş **too** [ Ece-Nom Londra-Dat go-Past-3Sg ]  
           bil-iyor-Ø/san-iyor-Ø.  
           know-Prog-3Sg/believe-Prog-3Sg  
           Intended: ‘Ulaş, too, knows/believes that Ece went to London.’
- (32) \*Ulaş [ Ece-Ø Londra-ya git-ti-Ø ] **de**  
           Ulaş [ Ece-Nom Londra-Dat go-Past-3Sg ] too  
           bil-iyor-Ø/san-iyor-Ø.  
           know-Prog-3Sg/believe-Prog-3Sg  
           Intended: ‘Ulaş also knows/believes that Ece went to London.’

Compare these cases with their nominalized counterparts, which can freely occur with presupposition triggers:

*Nominalized Embedded Clause with bile ‘even’:*

- (33) Ulaş [ Ece-**nin** Londra-ya git-tiğ-in ]-i **bile** bil-iyor-∅.  
       Ulaş [ Ece-Gen Londra-Dat go-DIK-3SgPoss ]-Acc even know-Prog-3Sg  
       ‘Ulaş even knows that Ece went to London.’
- (34) Ulaş **bile** [ Ece-**nin** Londra-ya git-tiğ-in ]-i bil-iyor-∅.  
       Ulaş even [ Ece-Gen Londra-Dat go-DIK-3SgPoss ]-Acc know-Prog-3Sg  
       ‘Even Ulaş knows that Ece went to London.’

*Nominalized Embedded Clause with de/da ‘also, too’*

- (35) Ulaş **da** [ Ece-**nin** Londra-ya git-tiğ-in ]-i bil-iyor-∅/  
       Ulaş too [ Ece-Gen Londra-Dat go-DIK-3SgPoss ]-Acc know-Prog-3Sg/  
       san-iyor-∅.  
       believe-Prog-3Sg  
       ‘Ulaş, too, knows/ believes that Ece went to London.’
- (36) Ulaş [ Ece-**nin** Londra-ya git-tiğ-in ]-i **de** bil-iyor-∅/  
       Ulaş [ Ece-Gen Londra-Dat go-DIK-3SgPoss ]-Acc de know-Prog-3Sg/  
       san-iyor-∅.  
       believe-Prog-3Sg  
       ‘Ulaş also knows/ believes that Ece went to London.’

Next, the word ‘finally’, also used to identify factivity (cf. Melvold (1991)), is not compatible with an ERC either (37). Nominalized embedded clauses, however, show no such restriction (38).

*Embedded Root Clause*

- (37) \*Ulaş **nihayet** [ Ece-∅ Londra-ya git-ti-∅ ] bil-iyor-∅/  
       Ulaş finally [ Ece-Nom Londra-Dat go-Past-3Sg ] know-Prog-3Sg/  
       san-iyor-∅.  
       believe-Prog-3Sg  
       Intended: ‘Ulaş finally knows/believes that Ece went to London.’

### *Nominalized Embedded Clause*

- (38) Ulaş **nihayet** [ Ece-**nin** Londra-ya git-tiğ-**in** ]-**i**  
Ulaş finally [ Ece-Gen Londra-Dat go-DIK-3SgPoss ]-Acc  
bil-iyor-∅.  
know-Prog-3Sg/believe-Prog-3Sg  
'Ulaş finally knows that Ece went to London.'

Since ERCs are assertions, i.e., are within the nuclear scope of their matrix clause, it is not surprising that the use of presupposition triggers with such clauses is ruled out.

#### **3.2.6 Discourse Conditions**

An ERC cannot be used if its proposition was already mentioned (or assumed) in the discourse, as shown in (39a). In such contexts, only a nominalized clause can be used (39b).

- (39) Lale: Nihayet! Okan ehliyet sınavını geçti!  
Lale: Finally! Okan passed his driver's license exam!
- a. Selin: Evet. # [ Okan-∅ sınav-1 geçmiş-∅ ] bil-iyor-um.  
Yes [ Okan-Nom exam-Acc pass-Past-3Sg ] know-Prog-1Sg  
Intended: 'Yes. I know that Okan passed the exam.'
- b. Selin: Evet. [ Okan-**in** sınav-1 geçmiş-**in** ]-**i** biliyorum.  
Yes [ Okan-Gen exam-Acc pass-DIK-3SgPoss ]-Acc know-Prog-1Sg  
'Yes. I know that Okan passed the exam.'

This restriction, too, shows that ERCs have to introduce new information.

### 3.2.7 Fixed Position

The position of ERCs is restricted to the immediate left of the verb, which is considered to be the focus position (associated with emphasis or contrast) (see Erkü (1983), Taylan (1984), Kural (1993), İsls̄ever (2003), among others). ERCs cannot be topicalized or backgrounded. It is well-known that the s-initial (topic) and post-verbal (backgrounded) elements are subject to a definiteness or specificity constraint (see Taylan (1984) among others).<sup>9</sup> Therefore, it is not surprising that ERCs, which are argued here to be assertive and non-presuppositional, cannot occur in s-initial and postverbal positions:

*ERC*

- (40) Tuna [ Aras-Ø iş-ten kov-ul-du-Ø ] bil-iyor-Ø.  
Tuna [ Aras-Nom work-Abl fire-Pass-Past-3Sg ] know-Prog-3Sg  
'Tuna knows that Aras was fired.'

*ERC, Topicalized*

- (41) \*[ Aras-Ø iş-ten kov-ul-du-Ø ] Tuna bil-iyor-Ø.  
[ Aras-Nom work-Abl fire-Pass-Past-3Sg ] Tuna know-Prog-3Sg  
Intended: 'That Aras was fired Tuna knows.'

---

<sup>9</sup>George and Kornfilt (1981) refer to the constituents that may follow the verb in Turkish as presupposed constituents. As stated by Kural (1992), such postverbal constituents cannot be focused in Turkish. Kural (1997) argues that postverbal constructions are derived by movement (rightward movement adjoining to the CP). See also Kelepir (1996) and Akan (2009) who argue that postverbal scrambling in Turkish is rightward movement. See Kornfilt (2005b) who proposes that such rightward movement may be limited to PF processes.

*ERC, Backgrounded*

- (42) \*Tuna bil-iyor-∅ [Aras-∅ iş-ten kov-ul-du-∅]  
Tuna know-Prog-3Sg [Aras-Nom work-Abl fire-Pass-Past-3Sg]  
Intended: ‘Tuna knows (it) that Aras was fired.’

NCCs, however, enjoy much greater freedom regarding the positions within a clause in which they may occur, as they can be topicalized and backgrounded:

*NCC*

- (43) Tuna [Aras-**in** iş-ten kov-ul-düğ-**un**]-**u** bil-iyor-∅.  
Tuna [Aras-Gen work-Abl fire-Pass-DIK-3SgPoss]-Acc know-Prog-3Sg  
‘Tuna knows that Aras was fired.’

*NCC, Topicalized*

- (44) [Aras-**in** iş-ten kov-ul-düğ-**un**]-**u** Tuna bil-iyor-∅.  
[Aras-Gen work-Abl fire-Pass-DIK-3SgPoss]-Acc Tuna know-Prog-3Sg  
‘That Aras was fired Tuna knows.’

*NCC, Backgrounded*

- (45) Tuna bil-iyor-∅ [Aras-**in** iş-ten kov-ul-düğ-**un**]-**u**.  
Tuna know-Prog-3Sg [Aras-Gen work-Abl fire-Pass-DIK-3SgPoss]-Acc  
‘Tuna knows (it) that Aras was fired.’

The fact that ERCs are banned from s-initial and post-verbal positions (positions reserved for presuppositional, given material) is yet another piece of evidence that ERCs are assertive, non- presuppositional elements, introducing new information into the discourse.

Also note that adverbs cannot intervene between an ERC and the selecting predicate:

*ERC with Matrix Adverb*

- (46) Tuna **hemen** [ Aras-Ø iş-ten kov-ul-du-Ø ] de-di-Ø.  
Tuna quickly [ Aras-Nom work-Abl fire-Pass-Past-3Sg ] say-Past-3Sg  
'Tuna quickly said Aras was fired.'

*ERC with Intervening Matrix Adverb*

- (47) \*Tuna [ Aras-Ø iş-ten kov-ul-du-Ø ] **hemen** de-di-Ø.  
Tuna [ Aras-Nom work-Abl fire-Pass-Past-3Sg ] quickly say-Past-3Sg  
Intended: 'Tuna quickly said Aras was fired.'

NCCs do not exhibit this restriction:

*NCC with Matrix Adverb*

- (48) Tuna **hemen** [Aras-**in** iş-ten kov-ul-düğ-un]-**u** söyle-di-Ø.  
Tuna quickly [Aras-Gen work-Abl fire-Pass-DIK-3SgPoss]-Acc say-Past-3Sg  
'Tuna quickly said that Aras was fired.'

*NCC with Intervening Matrix Adverb*

- (49) Tuna [Aras-**in** iş-ten kov-ul-düğ-un]-**u** **hemen** söyle-di-Ø.  
Tuna [Aras-Gen work-Abl fire-Pass-DIK-3SgPos]-Acc quickly say-Past-3Sg  
'Tuna quickly said that Aras was fired.'

Assuming that the adverb 'quickly' is at the edge of the VP, we can conclude that the ERC has to remain within the VP. Thus, once again we see that ERCs must be within the nuclear scope of the matrix clause.

### 3.2.8 Similarity with German ERCs

Ever since Hooper and Thompson (1973), it has been suggested that there is a connection between the use of root phenomena in embedded clauses and assertion, which led to extensive discussions in Germanic linguistics (see Wechsler (1991), Heycock (2005), among others). Meinunger (2006) and Schwabe (2007) present evidence that ERCs in German are, in fact, assertions, which is exactly what I have shown Turkish ERCs to be. Furthermore, the distribution of Turkish ERCs resembles that of German ERCs. In table 3.2, Meinunger (2006) lists the verbs/constructions that allow and do not allow for V2. We see that the verbs/constructions that allow and do not allow V2 in German are parallel to those that allow and do not allow ERCs in Turkish:

Verbs/constructions that allow for V2	Verbs/constructions that do not allow for V2
Verbs of saying	Factive verbs (emotive, truly factive predicates)
Evidential predicates	Semantically complex, negative verbs
Verbs of thinking	Causative, implicative verbs
Semi-factive verbs	Under negation
???volitional predicates	If the embedded proposition is discourse old

Table 3.2: Types of predicates and embedding of root (V2) clauses in German (Meinunger, 2006, p. 466)

Thus, once again we see that clauses referred to as fully finite and verbal clauses in Turkish are simply ERCs.

## 3.3 Interim Conclusion

To conclude this section, what makes clauses referred to in the literature as fully verbal, fully finite complement clauses in Turkish special and distinctive is not the fact that they are ‘finite’ and/or ‘verbal’, as the notion of finiteness and/or verbalness cannot capture the

above mentioned restrictions. Rather, the restrictions mentioned above follow from the fact that these embedded clauses are in fact ERCs.

Next, the focus is on the similarities that ERCs and bare object NPs in Turkish share. These similarities provide yet another piece of evidence that ERCs are assertions. Assuming Diesing's (1992) Mapping Hypothesis, ERCs are shown to be non-presuppositional (assertive) clauses, occurring exclusively within the nuclear scope, just like bare object NPs. In contrast, NCCs, which are free to occur in the restrictive clause of the quantification structure, pattern with accusative-marked object NPs.

### 3.4 The Parallelism of Bare Object NPs and ERCs

It is frequently stated in the literature that an object NP in Turkish may or may not be marked with the accusative case -I.<sup>10</sup> The presence or absence of this accusative marker has semantic correlates. The object NP marked with the accusative case marker -I, (50) has often been characterized as ‘specific’, and the object NP with no case marking, (51), aka Bare Object NP (BONP), as non-specific, or existential (cf. Enç (1991), among others):

- (50) Ali bir kitab-**I** aldi.  
Ali one book-**Acc** bought  
'A book is such that Ali bought it.'

- (51) Ali bir kitap aldi.  
Ali one book bought  
'Ali bought some book or other.' (Enç, 1991)

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<sup>10</sup>The accusative suffix -I is subject to vowel harmony and surfaces as either i, i, u, or ü, and requires a buffer consonant (-n or -y) when following words ending in a vowel.

Analyzing data from Enç (1991), Diesing (1992) shows that the ‘specific’ reading, in fact, involves a presuppositional interpretation of the NP.<sup>11</sup> Moreover, according to Diesing’s (1992) Mapping Hypothesis, Turkish BONPs, being non-presuppositional, occur exclusively within the nuclear scope of the quantification structure.

Given the already established non-presuppositionality of ERCs, it is expected that there is a parallelism between ERCs and BONPs in this respect. This parallelism indeed exists both morphologically and distributionally. First, it has already been mentioned in section 3.2.2 that object ERCs, which are always assertions and introduce new information, lack accusative case. It is argued here that the lack of the accusative does not only have the function of signaling non-presuppositionality in the case of NPs, but that it also has the function of signaling non-presuppositionality (assertiveness) of CPs. Second, both BONPs and ERCs can only occur to the immediate left of the verb, unlike their accusative-marked counterparts. This was illustrated for ERCs in 3.2.7. The examples below show that this is true of BONPs as well. Neither topicalization nor backgrounding is possible with BONPs:

#### *Bare Object NP in Canonical Position*

- (52) Eray **kitap**-Ø okudu.  
 Eray book-Ø read  
 ‘Eray read a book.’

---

<sup>11</sup> Also note that, as shown by Diesing (1992), object NPs that have ‘strong’ (or presuppositional) determiners require the accusative marker:

- (i) Ali **her** kitab **-1** okudu.  
 Ali **every** book **-Acc** read  
 ‘Ali read every book.’
- (ii) \*Ali **her** kitab okudu.

*Overtly Accusative-marked Object NP in Canonical Position*

- (53) Eray **kitab-1** okudu.  
Eray book-Acc read  
'Eray read a book.'

*Topicalized Bare Object NP*

- (54) \***Kitap-**Ø Eray okudu.  
Book-Ø Eray read  
Intended: 'Eray read the book.'

*Topicalized Overtly Accusative-marked Object NP*

- (55) **Kitab-1** Eray okudu.  
Book-Acc Eray read  
'Eray read the book.'

*Backgrounded Bare Object NP*

- (56) \*Eray okudu **kitap-**Ø.  
Eray read book-Ø  
Intended: 'Eray read the book.'

*Backgrounded Overtly Accusative-marked Object NP*

- (57) Eray okudu **kitab-1**.  
Eray read book-Acc  
'Eray read the book'

*Bare Object NP with Adverb*

- (58) Eray **hep** kitap-Ø aldi.  
Eray always book-Ø bought  
'A book is such that Eray bought it.' *Frequency Adverb*
- (59) Eray **özenle** elbise-Ø diki.  
Eray meticulously dress-Ø sewed  
'Eray meticulously sewed a dress.' *Manner Adverb*

*Bare Object NP with Intervening Adverb*

- (60) \*Eray kitap-Ø **hep** aldi.  
Eray book-Ø always bought  
'Eray bought some book or other.' *Frequency Adverb*
- (61) \*Eray elbise-Ø **özenle** diki.  
Eray dress-Ø meticulously sewed  
'Eray meticulously sewed a dress.' *Manner Adverb*

*Overtly Accusative-marked Object NP with Adverb*

- (62) Eray **hep** kitab-1 aldi.  
Eray always book-Acc took  
'Eray always took the book.' *Frequency Adverb*
- (63) Eray **özenle** elbise-yi diki.  
Eray meticulously dress-Acc sewed  
'Eray sewed the dress meticulously.' *Manner Adverb*

(both *book* and *dress* have contrastive stress when adjacent to the verb)

*Overtly Accusative-marked Object NP with Intervening Adverb*

- (64) Eray kitab-ı **hep** aldi.  
 Eray book-Acc always bought  
 ‘Eray bought some book or other.’ *Frequency Adverb*
- (65) Eray elbise-yi **özenle** diki.  
 Eray dress-Acc meticulously sewed  
 ‘Eray sewed the dress meticulously.’ *Manner Adverb*

The data above thus demonstrate that the structural position of the ‘bare object NP’ is within the VP (i.e., within the nuclear scope). We see then that ERCs, which share core features with bare object NPs, occupy the same position in the quantification structure as bare object NPs. These core features are listed in Table 3.3.

	Embedded Root Clauses	Object NPs marked -Ø	Nominalized Clauses	Object NPs Overtly Acc-marked
Can be backgrounded	✗	✗	✓	✓
Can be topicalized	✗	✗	✓	✓
Allows for intervening adverbs	✗	✗	✓	✓
Overtly Case-marked	✗	✗	✓	✓
Must be new to discourse	✓	✓	✗	✗

Table 3.3: Properties of CPs and NPs in Turkish

We have established that ERCs along with ‘bare NP objects’ are constituents occurring exclusively in the nuclear scope and that the overt accusative marking indicates presuppositionality. With these in mind, we next examine ERCs whose subjects are marked with the overt accusative case.

### 3.5 Accusative-marked Subjects of ERCs

A particularly interesting phenomenon is that the subjects of ERCs may occur with either nominative (66) or accusative case (67):

*Nominative Marked Subject, ERC*

- (66) Koray-Ø sen-Ø git-ti-**n** san-iyor-Ø.  
Koray-Nom you-Nom go-Past-2Sg believe-Prog-3Sg  
'Koray believes you to have gone away/left.'

*Accusative Marked Subject, ERC*

- (67) Koray-Ø sen-**i** git-ti-(**n**) san-iyor-Ø.  
Koray-Nom you-Acc go-Past-2Sg believe-Prog-3Sg  
'Koray believes you to have gone away/left.'

Accusative-marking on the subject in ERCs can only occur when the ERC is selected by the matrix verbs *bil-* ‘to know’ (with the epistemic meaning only) or *san-* ‘to believe’, both of which are transitive verbs that can license accusative case. Further note, that the verb in ERCs with accusative-marked subjects remains tensed, i.e., the ERC has still ‘tense features’ as the verb may be inflected for any tense or aspect marker:

*Accusative Marked Subject, ERC, Future*

- (68) Koray-Ø sen-**i** gid-ecek-(**sin**) san-iyor-Ø.  
Koray-Nom you-Acc go-Fut-2Sg believe-Fut-3Sg  
'Koray believes you will go/leave.'

*Accusative Marked Subject, ERC, Progressive*

- (69) Koray-Ø sen-i uyu-yor-(sun) san-iyor-Ø.  
Koray-Nom you-Acc sleep-Prog-2Sg believe-Prog-3Sg  
'Koray believes you are sleeping.'

However, as seen in (67)-(69), the subject-verb agreement within the ERC that has an accusative-marked subject is optional.<sup>12</sup>

### 3.5.1 Previous Accounts and Overview of the Section

The accusative case marker has led to assumptions these embedded clauses are analogous to English ECM/SOR constructions

- (70) John believes **her<sub>acc</sub>** to have left<sub>nonfinite clause</sub>.

It is standardly assumed for sentences in (70) that the subject in such non-finite (non-tensed) embedded clauses cannot receive Case (nominative) in this non-finite embedded clause and has to receive accusative Case (via ECM or SOR) to satisfy the Case Filter. A somewhat similar treatment has been given to sentences in (67) in Turkish: it is argued that the embedded clause in (67) is non-finite despite the presence of tense on the embedded verb. What makes the clause non-finite in Turkish is the lack of Agr features. Since (67) lacks Agr

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<sup>12</sup>Although the subject-verb agreement in accusative-marked ERCs is indicated here as optional, not everyone shares this judgement. Kornfilt (1977) suggests that there is a dialectal difference between Turkish speakers with respect to whether they find sentences such as (67)-(69) with or without agreement on the embedded verb grammatical. Aygen (2002), Kural (1993), Şener (2008) suggest there is no dialectal difference, and that agreement is optional.

features responsible for nominative Case in Turkish, the thematic subject of the embedded clause needs to receive Case other than nominative (George and Kornfilt (1981), Zidani-Eroğlu (1997), Kornfilt (2007), among others). In other words, the suggestion for Turkish is that it is not tense that determines whether a clause is finite or not but, rather, that finiteness is dependent on agreement: the lack of agreement renders the clause non-finite, whereas its presence ensures that the clause is finite (George and Kornfilt 1981; Kornfilt 2007, among others). Because the embedded clause in (67) is non-finite, the subject cannot receive nominative case, and in order to satisfy the Case Filter, it receives the accusative case.<sup>13,14</sup>

However, a Case Filter approach cannot explain the availability of two Case forms for the subject. Moreover, while the grammar allows for both possibilities, the choice between accusative and nominative case on such subjects is not entirely optional and has semantic consequences, which will be discussed in more detail in the coming subsections. In this respect, the Case Filter approach cannot account for the correlation of the two forms with distinct discourse conditions.

It is argued here that the accusative case marker on the subjects of ERCs follows from the analyses of embedded root clauses and the accusative case marker presented in the previous sections, with a single addition of an independently motivated movement, namely *topicalization*. This analysis can be broken into the following parts:

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<sup>13</sup>For an ECM analysis of such constructions, where the matrix verb exceptionally licenses Accusative case on the embedded subject and does so directly, see Kornfilt (1984, 1996); for a Subject-to-Object Raising analysis, which assumes that the subject moves to a position in the matrix, where the subject receives accusative case see Kornfilt (1977), Zidani-Eroğlu (1997), and Moore (1998).

<sup>14</sup>For a brief overview of previous analyses of both ERCs and accusative-marked subjects of such ERCs, see table in Appendix B.

- (i) The movement of the subject of an ERC is not driven by reasons of Case (contra George and Kornfilt (1981), Zidani-Eroğlu (1997), Kornfilt (2007), among others) but for reasons pertaining to information structure, namely *topicalization* and *backgrounding*. When *topicalized* or *backgrounded*, the embedded subject must leave the nuclear scope of the matrix clause, the position in which the ERC remains.
- (ii) Once the embedded subject moves into the restrictive clause (i.e., the restrictive clause of the matrix clause) it structurally becomes the object of the matrix verb and is, therefore, destined to receive an accusative case marker, like any direct object in Turkish.
- (iii) Crucially, the relevant constituent, which is at the same time the semantic argument of the embedded verb and the structural object of the matrix verb, is *presuppositional* in the discourse, because all *topicalized* and *backgrounded* elements are necessarily presuppositional. As such, the moved NP must receive the overt accusative marking reserved for presuppositional object NPs.

The next subsection lists properties of the accusative-marked subjects of ERCs and provides evidence that accusative-marked subjects are indeed in the matrix clause and that this movement is for reasons of information structure.

### **3.5.2 Interaction of Accusative-marked Subjects with Adverbs**

The manner in which the accusative-marked subject interacts with matrix adverbs shows that the accusative marked subject is in the matrix clause, i.e., it receives accusative case in the matrix clause, rather than in the ERC. For example, the imperfective temporal adverb *sabahtan beri* ‘since this morning’ can be used with only imperfective predicates (Kornfilt, 1977; Zidani-Eroğlu, 1997):

When this temporal adverb precedes the ERC, it modifies the imperfective matrix predicate:

- (73) (Siz) sabah-tan beri [Ali-Ø öp-ül-dü] san-iyor-sunuz.  
                   └─────────────────┘  
 You-nom morning-abl since [Ali-Nom kiss-Pass-Past] believe-Prog-2Pl  
 'You have been thinking since this morning that Ali was kissed.'  
 (Zidani-Eroğlu, 1997, p. 221)

The following sentence, in which the temporal adverb is within the ERC is ungrammatical, which follows from the fact that the temporal adverb is now forced to modify the embedded verb, which is a non-imperfective:

In other words, the ungrammaticality of (74) follows from the ungrammaticality of example (71).

However, when the subject of the embedded clause is marked with an overt accusative marker, the sentence in (74) becomes grammatical, with the temporal adverb now modifying the imperfective matrix predicate:

- (75) (Siz) Ali-yi sabah-tan beri öp-ül-dü san-ıyor-sunuz.  
You-nom Ali-**Acc**<sub>presup</sub> morning-abl since kiss-Pass-Past believe-Prog-2pl  
'You believe Ali to have been kissed since this morning.'

(Zidani-Eroğlu, 1997, p. 221)

For Zidani-Eroğlu (1997) this indicates that the adverb is in the matrix clause, and thus, the 'ECM NP' *Ali-yi* must occupy a position in that clause as well.<sup>15</sup>

### 3.5.3 Negative Polarity Items

In order to determine where the overtly accusative marked subject is positioned, many have referred to data from NPI-licensing. As shown below, a negative polarity item in Turkish is grammatical only in the presence of a licensor. For example, in the examples below both the object and the subject NPI are licensed by the negation on the predicate:

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<sup>15</sup>Zidani-Eroğlu (1997) further defends this view by presenting data that show how the frequency adverb *sık sık* 'often, frequently' interacts with other elements in the sentence.

- (76) Tunç      **kimse**-yi      öp-me-di-∅.  
       Tunç-Nom anybody-Acc kiss-Neg-Past-3Sg  
       'Tunç did not kiss anyone.'

- (77) **Kimse**      gel-me-di-∅  
       anybody-Nom come-Neg-Past-3Sg  
       'Nobody came.'

The absence of negation in such structures results in ungrammaticality:

- (78) \*Tunç      **kimse**-yi      öp-tü-∅.  
       Tunç-Nom anybody-Acc kiss-Past-3Sg  
       \*'Tunç kissed anyone.'

- (79) \***Kimse**      gel-di-∅.  
       anybody-Nom come-Past-3Sg  
       \*'Anybody came.'

Negative polarity items may occur inside ERCs, but under the condition that the negation marker is within that same clause:

- (80) (Siz) [ **kimse**      gel-me-di-∅ ] sani-yor-sunuz.  
       You    anybody-Nom come-Neg-Past-3Sg    think-prog-2Pl  
       'You think that anybody didn't come.' ('You think that nobody came.')

A negation marker in the matrix clause, however, cannot license an NPI within the ERC:<sup>16</sup>

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<sup>16</sup> According to Zidani-Eroğlu (1997) and Şener (2008), such sentences are grammatical. Zidani-Eroğlu (1997) gives the following sentence:

- (i) (Siz) [ **kimse**      bu    kitab-1    oku-du      ] san-**mi**-yor-sunuz.  
       You-Nom    anybody-Nom    this book-Acc    read-Past-3Sg    think-Neg-Prog-2Pl  
       'You do not think that anybody read this book.'

- (81) \*(Siz) [ **kimse** gel-di-Ø ] san-**mi**-yor-sunuz.  
 You-nom **anybody**-Nom come-Past-3Sg think-Neg-Prog-2Pl  
 Intended: ‘You don’t think that nobody came.’ (‘You don’t think anybody came.’)

Based on this ungrammaticality, it has been frequently argued that NPI licensing is subject to a clause-mate condition (see footnote 16). However, there are two problems with this view. The first problem is that NPI-licensing is not subject to a clausemate condition in the case of the more common and widely-used subordinate clauses in Turkish, namely nominalized clauses:<sup>17</sup>

- (82) (Siz) [ **kimse-nin** gel-diğ-in ]-i san-**mi**-yor-sunuz.  
 You-Nom **anybody**-Gen come-DIK-3SgPoss -Acc think-Neg-Prog-2Pl  
 ‘You don’t think that anybody came.’

- (83) (Siz) [ **kimse-nin** gel-me-sin ]-i iste-**mi**-yor-sunuz.  
 You-Nom **anybody**-Gen come-mA-3SgPoss -Acc want-Neg-Prog-2Pl  
 ‘You don’t want for anybody came.’

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It should be noted that others such as Kornfilt (1984); Kural (1993); Kennelly (1996); Kelepir (2001) find sentences like (81) and (i) ungrammatical. Based on this ungrammaticality, they assume that NPIs in Turkish are subject to a clause-mate condition. While I agree with the the judgments of the latter group, I reject the claim that the ungrammaticality of sentences such as (81) and (i) is due to a clause-mate condition.

<sup>17</sup>Note that not all nominalized clauses allow long-distance NPI-licensing, as shown by the example below:

- (i) \*(Siz) [ **kimse-nin** gel-diğ-in ]-i unut-**ma**-di-nız.  
 You-Nom **anybody**-Gen come-DIK-3SgPoss -Acc forget-Neg-Past-2Pl  
 ‘You didn’t forget that anybody came.’

However, the reason for this is not due to a clause-mate condition. It is well-known long-distance NPI-licensing is generally available in non-factive clausal complements, but not in factives, such as those introduced by the factive verb *unut-* ‘to forget’, which is used in the example here.

Thus, advocating a clause-mate condition in Turkish is not very plausible.

Second, if the NPI in the embedded clause is replaced by a proper name, the sentence is still ungrammatical:

- (84) \*(Siz) [ Ahmet bu kitab-1 oku-du ] san-**mi**-yor-sunuz.  
You-Nom Ahmet-Nom this book-Acc read-Past-3Sg think-Neg-Prog-2Pl  
Intended: 'You do not think that Ahmet read this book.'

The reason why (84), and by extension (81), is ungrammatical is because, as was shown in section 3.2.4, ERCs cannot be negated. It is argued that this is due to their assertive character. We therefore conclude that the sentence given in (81) is not ungrammatical due to a clause-mate condition or any other NPI-related issue, but because of issues pertaining to the semantics/pragmatics that ERC constructions bear.

Next, we examine NPI licensing data regarding an ERC whose subject is marked accusative. Zidani-Eroğlu (1997) notes that if the accusative-marked subject is an NPI, as in (85), it cannot be licensed by negation in the embedded clause. Compare (85) with (80):

- (85) \*(Siz) kimse-yi [ bu kitab-1 oku-**ma**-di ] sani-yor-sunuz.  
You-Nom anybody-Acc [ this book-Acc read-Neg-Past ] believe-Prog-2Pl  
Intended: 'You believe nobody to have read this book.' (Zidani-Eroğlu, 1997, p.

226)

This is yet another piece of evidence for the claim that the accusative-marked subject must be in the matrix clause, since negation in the embedded clause is not able to license an NPI in the matrix clause.

### 3.5.4 Word Order Variations of Accusative Subjects

Section 3.2.7 illustrated that the position of ERC is fixed, and this was attributed to the fact that ERCs are asserted, non-presuppositional elements, which must remain within the nuclear scope. The summary is provided in the table below:

Position	Example
ERC in default position	John [ Mary-Ø book bought ]-Ø believes
topicalized ERC	*[ Mary-Ø book bought ]-Ø John believes
backgrounded ERC	* John believes [ Mary-Ø book bought ]-Ø

Table 3.4: Embedded Root Clause (ERC) Positions

Accusative marked ERC subjects, however, do not have to appear in a fixed position. We have already seen that accusative marked subjects may be followed by an adverb which may modify the matrix verb (section 3.5.2, example (75)). The following examples show that the accusative marked subject can also be topicalized or backgrounded:

#### *Topicalized Subject with Acc-marking*

- (86) Ben **Ilgın-i** [ *ti* okul-a git-ti ] bil-iyor-um .  
 I-Nom Ilgin-Acc [ school-Dat go-Past ] believe-Prog-1Sg  
 'I believe Ilgin to have gone to school.'

#### *Topicalized Subject with Acc-marking*

- (87) **Ilgın-i** ben [ *ti* okul-a git-ti ] bil-iyor-um.  
 Ilgin-Acc I-Nom [ school-Dat go-Past ] believe-Prog-1Sg  
 'I believe Ilgin to have gone to school.'

*Backgrounded Subject with Acc-marking*

- (88) Ben [ *ti* okul-a git-ti ] bil-iyor-um **Ilgin-i.**  
     I-Nom [ school-Dat go-Past ] believe-Prog-1Sg Ilgin-Acc  
     'I believe Ilgin to have gone to school.'

Note that,  $\emptyset$ -marked embedded subjects of ERCs do not have this property:

*ERC with  $\emptyset$ -marked Subject*

- (89) Ben- $\emptyset$  [ **Ilgin- $\emptyset$**  okul-a git-ti- $\emptyset$  ] bil-iyor-um.  
     I-Nom [ Ilgin-Nom school-Dat go-Past-3Sg ] believe-Prog-1Sg  
     'I believe Ilgin to have gone to school.'

*Topicalized Subject with  $\emptyset$ -marking*

- (90) \***Ilgin- $\emptyset$ i** ben- $\emptyset$  [ *ti* okul-a git-ti- $\emptyset$  ] bil-iyor-um.  
     Ilgin-Nom I-Nom [ school-Dat go-Past-3Sg ] believe-Prog-1Sg  
     Intended: 'I believe Ilgin to have gone to school.'

*Backgrounded Subject with  $\emptyset$ -marking*

- (91) \*Ben- $\emptyset$  [ *ti* okul-a git-ti- $\emptyset$  ] bil-iyor-um **Ilgin- $\emptyset$ i.**  
     I-Nom [ school-Dat go-Past-3Sg ] believe-Prog-1Sg Ilgin-Nom  
     Intended: 'I believe Ilgin to have gone to school.'

The fact that accusative marked subjects can be both topicalized and backgrounded is yet another indication that they are presuppositional elements, just like any other overtly accusative marked item—whether object NP or CP.

Note that although the overtly accusative-marked subject can be topicalized or backgrounded, the ERC from which they originate is still restricted to the preverbal position:

- (92) \***İlgın-1i** ben-Ø *t<sub>j</sub>* bil-iyor-um [ *t<sub>i</sub>* okul-a git-ti ]<sub>j</sub>.  
 Ilgin-Acc I-Nom believe-Prog-1Sg [ school-Dat go-Past ]  
 Intended: 'I believe Ilgin to have gone to school.'

In other words, while the overtly accusative marked subject is in the restrictive clause of the matrix clause, the ERC remains within the nuclear scope of the matrix clause.

### 3.5.5 Discourse Conditions

It can be further confirmed that subjects marked overtly with accusative case are presuppositional elements by examining the discourse conditions in which they may occur. In the context given in example (93), the subject of the embedded clause, *kırlangıç* 'swallow', is necessarily non-presuppositional, hence overt accusative marking on this subject results in ungrammaticality (93b).

- (93) Kaan: Meltem'in camı çok çamurluymuş.

Kaan: Meltem's window is supposedly very muddy.

Selin: Niye, nolmuş?

Selin: Why, what happened?

- a. Kaan: Meltem [ bir kırlangıç-Ø yuva yap-tı-Ø ] san-iyor-Ø.  
 Kaan: Meltem [ a swallow-Nom nest make-Past-3Sg ] believe-Prog-3Sg  
 'Meltem believes that a swallow made a nest.'
  
- b. Kaan: #Meltem [ (bir) kırlangıç-1 yuva yap-tı-Ø ] san-iyor-Ø.  
 Kaan: Meltem [ (a) swallow-Acc nest make-Past-3Sg ] believe-Prog-3Sg  
 Intended: 'Meltem believes that a swallow made a nest.'

The context provided in (94), however, requires that the subject of the embedded clause to be a presuppositional element. We thus see that the subject must be overtly marked with the accusative case and that an ERC with a nominative subject is infelicitous.

(94) Context: Kaan did not hear or see the swallow living on his balcony for quite some time. He started to think that the cat ate the swallow. One day his wife Meltem says: Did you notice that the swallow made a mess on the windows?

- a. Kaan: Olamaz. Ben [ kirlangıç-**1** öл-dü-Ø ] bil-iyor-um.  
 Kaan: Impossible: I [ swallow-Acc die-Past-3Sg ] believe-Prog-1Sg  
 ‘Impossible. I believe the swallow has died.’
- b. Kaan: #Olamaz. Ben [ (bir) kirlangıç-Ø öл-dü-Ø ] bil-iyor-um.  
 Kaan: Impossible. I [ (a) swallow-Nom die-Past-3Sg ] believe-Prog-3Sg  
 Intended: ‘Impossible. I believe the swallow has died.’

The fact that the presence or absence of the overt accusative marking on ERC subjects has semantic/pragmatic consequences once again shows that the choice between accusative-marked ERC subjects and nominative marked ERC subjects is not optional.

We therefore conclude that movement of the accusative-marked subject of an ERC (i.e., from the nuclear scope) to the matrix clause (i.e., the restrictive clause) is not due to reasons of case but is solely due to information structure.

### 3.6 Conclusion

Systematic restrictions exhibited by so-called ‘finite complement clauses’ (FCCs) in Turkish follow from the fact that these clauses are in fact embedded root clauses (ERCs). These

ERCs are shown to be assertions, introducing new information into the discourse. They share core features with their counterparts in other languages, notably V2 in Germanic. It was further demonstrated that the discourse conditions, morphological marking and structural distribution of ERCs mirror those of Bare Object NPs (BONPs) in the language: Turkish ERCs, much like BONPs, are non-presuppositional, do not have an accusative case marker and are exclusively within the nuclear scope of the quantification structure. Finally, under the proposed analysis, accusative-marked subjects that may occur in such ERCs receive a natural explanation: such subjects are topical or backgrounded elements, and are thus located within the restriction clause, outside of their originating ERC. The accusative marking is the combined result of their new structural position of the matrix verb's object on the one hand, and their presuppositionality on the other. Given that the movement of the subject of ERCs into the restriction clause is motivated for reasons of information structure and not for reasons of Case, the questions of whether Turkish ERCs are finite or not does not even arise. In other words, there is no need to make the further assumption that Turkish finiteness is determined by Agr features (which are optional in accusative-marked ERCs to begin with), as the lack of Case is not what motivates the movement of ERC subject to move from the nuclear scope into the restrictive clause.

CHAPTER 4

AN ANALYSIS OF NOMINALIZED EMBEDDED CLAUSES IN TURKISH

## 4.1 Introduction

So far we have looked at two clause types in Turkish, namely clauses introduced by the element *ki* (see Chapter 2) and clauses referred to as ‘fully finite and verbal’ (see Chapter 3). It was argued that both of these clauses are root clauses.

### *Ki-Clause*

- (1) Tuğçe-∅ san-iyor-∅ *ki* [ *biz*-∅ Ankara-ya git-ti-k ].  
Tuğçe-Nom believe-Prog-3Sg *ki* [ we-Nom Ankara-Dat go-Past-1Pl ].  
‘Tuğçe believes that we went to Ankara.’

- *Analysis:* Paratactically connected Root Clause, where the complementizer is a coordinator of category C.

### *Fully Finite, Verbal Clause*

- (2) Tuğçe-∅ [ *biz*-∅ Ankara-ya git-ti-k ] san-iyor-∅.  
Tuğçe-Nom [ we-Nom Ankara-Dat go-Past-1Pl ] believe-Prog-3Sg  
‘Tuğçe believes that we went to Ankara.’

- *Analysis:* Embedded Root Clause (ERC), which has similar properties to the German embedded V2-clause. Analogous to these are also English embedded clauses that have undergone so-called ‘complementizer deletion.’

First, it was shown that *ki*-clauses are paratactically connected root clauses, where *ki* is analyzed as a coordinator of category C. This new analysis of *ki* is especially an important one, as the common view in the literature is that the borrowed element *ki* is a subordinator of the Indo-European type, similar to the English complementizer *that* (see Göksel and Kerslake (2005), Kornfilt (1997, 2005a), among others), thus, giving rise to the widely-held, but nevertheless wrong assumption that Turkish does have an instance of Indo-European style complementation.

Next, it was shown that clauses that are referred to as (fully) finite, verbal embedded clauses in Turkish are, in fact, simply embedded root clauses (ERCs), introducing new information into the discourse. The peculiar properties of such clauses were shown to be due to the fact that such clauses are simple ERCs, and that these properties did not follow from their “(fully) finiteness”, nor their “verbalness”. What both *ki* clauses and so-called “(fully) finite, verbal clauses” have in common is the fact that they are both roots and carry *assertion*. Furthermore, neither the *ki* clause nor the ERC is the most frequently occurring embedded clause type in Turkish. The relatively infrequent occurrence of embedded root clauses is also attested in other languages (cf., *that*-deletion contexts in English, V2 embedded clauses in German, paratactic root clauses in Frisian, among others). Regarding English and German, the most frequently occurring clauses are the ones that are introduced by a complementizer.<sup>1</sup> Turkish, however, does not have a complementizer akin to English *that* or German *dass*, at least, not on the surface. This begs the question as to what function complementizers such as *that* or German *dass* carry out. More importantly, how is this particular function carried out in Turkish, a language that has no complementizer akin to

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<sup>1</sup>Most, if not all verbs can take a clause that has a complementizer, but only a restricted set of verbs can take clauses with no complementizer in both English and German, and presumably, in other languages as well.

*that* or German *dass*? Does the lack of a complementizer mean that the function carried out by that complementizer is also absent? Is the lack of a complementizer compensated for by other means? I argue that it is. In this chapter I argue that Turkish nominalized embedded clauses, despite being nominalized and not having a complementizer of the Indo-European type, exhibit some parallels with embedded clauses headed by a complementizer such as *that* or German *dass*.<sup>2</sup> In particular, it is argued that both nominalized embedded clauses in Turkish and embedded clauses headed by a complementizer such as *that* are CPs, where C has a nominal feature. This nominal feature in C in Turkish manifests itself through nominalization, whereas in English it surfaces as the complementizer *that*, which is derived from a demonstrative, a nominal category.

## 4.2 Background

This chapter examines two types of nominalized embedded clauses in Turkish, namely clauses constructed with the suffix *-mA* and those constructed with the suffix *-DIK/-AcAK*. Both of these suffixes are attached to verbs and create nominalizations in embedded contexts. Thus, *-mA* and *-DIK/-AcAK* are standardly referred to as nominalizing suffixes.<sup>3</sup> Below are examples of such nominalized clauses:

### *Nominalized Clause, -DIK*

- (3) Tuğçe-∅ [ biz-im Ankara-ya git-tiğ-imiz ]-i san-iyor-∅.  
 Tuğçe-Nom [ we-Gen Ankara-Dat go-DIK-3SgPoss ]-Acc believe-Prog-3Sg  
 ‘Tuğçe believes that we went to Ankara.’

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<sup>2</sup>The most frequent types of embedded clauses are nominalized in Turkish.

<sup>3</sup>Another nominalizing suffix is *-Iş*. This suffix will be briefly analyzed in the forthcoming sections.

*Nominalized Clause, -AcAK*

- (4) Tuğçe-∅ [ biz-im Ankara-ya gid-eceğ-imiz ]-i san-iyor-∅.  
 Tuğçe-Nom [ we-Gen Ankara-Dat go-AcAK-3SgPoss ]-Acc believe-Prog-3Sg  
 'Tuğçe believes that we will go to Ankara.'

*Nominalized Clause, -mA*

- (5) Tuğçe-∅ [ biz-im Ankara-ya git-me-miz ]-i iste-di-∅.  
 Tuğçe-Nom [ we-Gen Ankara-Dat go-mA-3SgPoss ]-Acc want-Past-3Sg  
 'Tuğçe wanted for us to go to Ankara.'

A brief look at table 4.1 easily shows that *-mA* and *-DIK/-AcAK* have received many different labels.

	<b>Labels of <i>-DIK/-AcAK</i> and <i>-mA</i></b>
<b>Lees (1965)</b>	<i>-DIK/-AcAK</i> is factive nominal; <i>-mA</i> is an action nominal
<b>Underhill (1976)</b>	<i>-DIK/-AcAK</i> and <i>-mA</i> are gerundives
<b>Kornfilt (1984)</b>	<i>-DIK/-AcAK</i> and <i>-mA</i> are participial forms; <i>-DIK</i> is a factive nominal and <i>-mA</i> an action nominal
<b>Kennelly (1996)</b>	<i>-DIK/-AcAK</i> are aspectual markers that are distinct from main clause tenses
<b>Kural (1992)</b>	<i>-DI</i> is the past tense marker; <i>-AcAK</i> is the future marker; <i>-mA</i> is an infinitive; <i>-mAK</i> is an infinitive; <i>-K</i> is a complementizer
<b>Kornfilt (2003, 2007)</b>	<i>-DIK</i> : factive (=indicative) nominalized embedding; <i>-AcAK</i> : future factive (=indicative) nominalized embedding; <i>-mA</i> : non-factive (=subjunctive) nominalized embedding <sup>4</sup>
<b>Keskin (2009)</b>	<i>-DIK</i> is factive nominalizer; <i>-mA</i> is an action nominal
<b>Aygen (2002, 2007)</b>	<i>-DIK</i> is a perfect aspect morpheme

Table 4.1: Labels of *-DIK/-AcAK* and *-mA* Suffixes

While the exact classification of the so-called nominalizers *-DIK/-AcAK* and *-mA* is under debate, the following three properties of clauses formed with these nominalizers are acknowledged:

- The subject of nominalized clauses bears genitive Case
- The subject-verb agreement is nominal rather than verbal
- All nominalized clauses are Case-marked

These properties of nominalized clauses are exemplified from (3) to (5). This set of properties is also found in regular NPs in Turkish. As example (6) shows, the possessor *biz* ‘we’ is marked with the genitive case and the agreement on the ‘possessee’ *kitap* ‘book’ is from the nominal paradigm. Furthermore, the entire NP receives Case, in this case accusative:

### *Noun Phrase*

- (6) Tolga [biz-**im** kitab-**imız**] **-i** al-di-∅  
 Tolga [we-Gen book-1PlPoss] -Acc take-Past-3Sg  
 ‘Tolga took our book.’

Needless to say, these properties of nominalized clauses are not found in a root clause in Turkish, which exhibits the following features:

- The subject of root clauses bears Nominative Case
- The subject-verb agreement is verbal
- Root clauses are not Case-marked

These properties can be seen in the root clause given in (7) (also see (1) and (2)):

### *Root Clause*

- (7) Biz-*Ø* Ankara-ya git-ti-k.  
We-Nom Ankara-Dat go-Past-1Pl  
'We went to Ankara.'

Although *-DIK/-AcAK* and *-mA* clauses have many common properties, they show important structural differences. For example, when *-DIK/-AcAK* and *-mA* clauses are adjuncts, their subjects showcase different case markings—the subject of the *-mA* nominalized clause retains its genitive case, whereas the subject of the *-DIK/-AcAK* nominalized clause appears with the morphologically null nominative case. In both clauses the agreement on the verb is still nominal:

#### *-DIK/-AcAK clause in Adjunct Position*

- (8) [ [ Buğra-*Ø* araba-yı sat-tığ-ı ] **için** ] İstanbul-a  
[ [ Bugra-Nom car-Acc sell-DIK-3SgPoss ] because ] İstanbul-dat  
gid-e-me-di-k.  
go-Abil-Neg-Past-3Pl  
'Because Buğra sold the car, we couldn't go to Istanbul.'

#### *-mA clause in Adjunct Position*

- (9) [ [ Buğra-nın araba al-ma-sı ] **için** ] para biriktir-di-m.  
[ [ Bugra-Gen car buy-mA-3SgPoss ] for ] money save-Past-1Sg  
'I saved money, so that Buğra could buy a car.'

Furthermore, *-DIK/-AcAK* nominalized clauses constitute the modifying clause of non-subject Relative Clauses (RC) in Turkish:<sup>5</sup>

<sup>5</sup>A crucial property of non-subject RCs in Turkish is that the nominal agreement appears on the verb within the modifying clause and not on the head noun, unlike in some other Turkic languages (see Kornfilt,

*Non-Subject Relative Clause (overtly-headed)*

- (10) [ Timuçin-**nin** *ti* al-**dı̄ğ-i** ] arabai  
[ Timuçin-Gen buy-DIK-3SgPoss ] car  
'The car that Timuçin bought'

*Non-Subject Relative Clause (free)*

- (11) [ [ Pelin-in duy-**dı̄ğ-un** ]-a göre ] Timuçin araba  
[ Pelin-Gen hear-DIK-3SgPoss ]-Dat according to Timuçin araba  
al-mış-∅.  
buy-Perf-3Sg  
'According to what Pelin heard, Timuçin bought a car.'

However, a *-mA* clause cannot function as a modifying clause in a relative clause construction:<sup>6</sup>

*-mA Clause in Subject Relative Clause Constructions*

- (12) \*[ Ali-**nin** *ti* pişir-**me-si** ] yemek  
[ Ali-Gen cook-DIK-3SgPoss ] food  
Intended: 'The food Ali should cook' (Kornfilt, 2003, p. 145)

#### 4.2.1 Previous Claims

The focus of most previous analyses has been to explain how the subject Case (genitive) of the nominalized clauses is licensed, what kind of role the nominal agreement has (if any),  

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2005a, for an in-depth discussion of this issue).

<sup>6</sup>For Kornfilt (2003) this property of *-DIK/-AcAK* clauses is an indication that they must be CPs, albeit dominated by DPs. On the other hand, *-mA* clauses are homogeneously DPs and lack the qualifying specifier position for the relativizing operator.

and what the structure of these nominalized clauses is. Also, various accounts provide classifications of embedded Infl categories.

The following is a brief list of the analyses proposed for nominalized clauses in Turkish:

- A *-DIK/-AcAK* nominalized clause in Turkish is a DP over an IP (Kennelly, 1996). CP is the checking site for Tense; therefore, the absence of Tense is an indication of the absence of CP. There is no Tense in *-DIK/-AcAK* nominalized clauses, and hence also no CP;
- A *-DIK/-AcAK* nominalized clause is an AgrNP over a Mood Category. There is no CP above the AgrNP (Borsley and Kornfilt, 2000);
- A *-DIK/-AcAK* subordinate clause in Turkish is a CP (=Force) over a nominal AgrP (=Fin), whereas a *-mA* nominalized clause is a AgrP (=Fin) with no CP (=Force) layer (Kornfilt, 2003, 2007);
- *-DIK/-AcAK* nominalized clauses are complements of phonologically unrealized nominal heads (Aygen, 2002, 2007)—an idea going back to Lees's (1965) claim that nominalized clauses are elliptic constructions;
- The final -K found in *-DIK* and *-AcAK* belongs to the C<sup>0</sup> category. Contra Pollock (1989) and Chomsky (1991), and in accordance with Chomsky (1995), Agr is not an independent head in Syntax (Kural, 1993);
- *-DIK/-AcAK* and *-mA* nominalizations are gerundives (Underhill, 1976);
- *-DIK/-AcAK*, the General Participle, selects those adjectives which refer to “facts”, while that in *-mA*, the Action Noun, selects those which refer to “actions” (Lees, 1965).

## 4.2.2 Aims of the Chapter

The main aim of this chapter is to give an appropriate classification of the nominalizers *-DIK/-AcAK* and *-mA* as well as to unearth the syntactic structure of these nominalized clauses. In particular, attention is drawn to the parallelism between embedded nominalized clauses in Turkish and the Indo-European style of complementation, i.e., embedded clauses that are introduced by an overt complementizer in an attempt to de-mystify embedded nominalizations in Turkish. I make the following general proposals:

- *-DIK/-AcAK* clauses are indicative clauses, whereas *-mA* clauses are subjunctive clauses;
- *-DIK/-AcAK* clauses are CPs.<sup>7</sup> There is no nominal layer below or above the CP layer. Rather, the “nominal property” is encoded in C in much the same way a “nominal property” is encoded in C in English embedded clauses with *that*;
- *-mA* clauses are CPs as well, and similar to *-DIK/-AcAK* nominalized clauses, there is no nominal functional layer above or below this CP. Instead, the nominal behavior of *-mA* is attributed to the nominal characteristic of C;
- *-DIK/-AcAK* and *-mA* clauses are both CPs. However, only the CP in the *-DIK/-AcAK* clause is a phase.
- Turkish has V-T-C movement, with C being the crucial site for case valuing/checking.

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<sup>7</sup>This is in line with Kural (1993). There are, however, important differences between the analysis proposed here and the proposal of Kural (1993). The differences are laid out in section 4.5.3.

### 4.2.3 Overview of the Chapter

In section 4.3 I give evidence as to why *-DIK/-AcAK* clauses are indicative clauses and why *-mA* clauses are subjunctive clauses. Section 4.4 goes over some of the most popular accounts of *-DIK/-AcAK* and *-mA* clauses. Section 4.5 provides an analysis for *-DIK/-AcAK* and *-mA* clauses.

## 4.3 Nominalizers *-DIK/-AcAK* and *-mA* as Markers of Mood

In this section various pieces of evidence are given to show that nominalizers *-mA* and *-DIK/-AcAK* are in fact markers of mood, and that mood is what determines the choice between using a *-mA* or *-DIK/-AcAK* nominalizer in embedded contexts. These pieces of evidence come from parallels of *-mA* with embedded root clauses, temporal relations, the types of verbs that govern *-mA* and *-DIK/-AcAK* clauses, the types of adjunct clauses in which *-mA* and *-DIK/-AcAK* occur, subjunctive obviation, and narrow wh-scope.

### 4.3.1 Parallels with Embedded Root Clauses

In a few works by Kornfilt (2003, 2007) *-DIK/-AcAK* and *-mA* have been referred to as indicative and subjunctive nominalizers respectively. This section shows that the descriptions of *-DIK/-AcAK* as an indicative marker and *-mA* as a subjunctive marker are correct, but for many more reasons than previously given.

The reason why Kornfilt (2003, 2007) uses the term indicative for *-DIK/-AcAK* and subjunctive for *-mA* is based on the parallels that these clauses have with their embedded

root clause counterpart. Turkish has a predicate form that appears in root clauses that is called the subjunctive (also the optative):

- (13) Ben-Ø bugün yemek pişir-e-yim  
 I-Nom today food cook-Sbjnctv-1Sg  
 'I should/ought to cook food today; Let me cook food today.'

(Kornfilt, 2003, p. 137)

Such subjunctive clauses can also be embedded as root clauses (ERCs) by the matrix verb *iste-mek* 'to want':

- (14) [ Ben-Ø bugün yemek pişir-e-yim ] isti-yor-um  
 [ I-Nom today food cook-Sbjnctv-1Sg ] want-Prog-1Sg  
 'I want to cook [that I should cook] food today;  
 I want for myself to cook food today.'

(Kornfilt, 2003, p. 138)

Besides a root clause, the verb *iste-mek* 'to want' may take a nominalized clause. In such cases the nominalizer that shows up in the embedded nominalized clause is *-mA* (15). The *-DIK/-AcAK* nominalizer cannot occur in such contexts (16).

- (15) [ Sen-in yarın ev-de yemek pişir-me-n ]-i isti-yor-um  
 [ You-Gen tomorrow home-Loc food cook-**mA**-2SgPoss ]-Acc want-Prog-1Sg  
 'I want for you to cook food at home tomorrow;  
 I want that you should cook food at home tomorrow.'

(Kornfilt, 2003, p. 139)

- (16) \*[ Sen-in yarın ev-de yemek pişir-eceğ-in ]-i isti-yor-um  
     [ You-Gen tomorrow home-Loc food cook-AcAK-2SgPoss ]-Acc want-Prog-1Sg  
     Intended: I want that you cook food at home tomorrow;

I want you to cook food at home tomorrow

Kornfilt (2003) states that because *iste-mek* ‘to want’ selects for an embedded root clause that is in the subjunctive, the embedded nominalized clause selected by *iste-mek* ‘to want’ must be in the subjunctive as well. Therefore, she describes *-mA* clauses as subjunctive clauses, and refers to *-DIK/-AcAK* clauses as indicative clauses.

### 4.3.2 Temporal Relations

It is well-known that indicative clauses have tense properties that are independent of that of the matrix clause, whereas subjunctive clauses do not encode tense and solely rely on the matrix clause for tense specifications. For example, in the Spanish examples below, whereas indicative clauses may show any temporal specification regardless of that of the matrix, subjunctive clauses may not.

- (17) *Indicative Clauses, Spanish*

- a. Platón dice [CP C que Aristóteles {lee/leía/leerá} a Sócrates].  
 Plato say.3Sg [ that Aristotle read.{Pres/Past/Fut}.3Sg to Socrates]  
     ‘Plato says that Aristotle {reads/ read/ will read} Socrates.’
- b. Platón dijo [CP C que Aristóteles lee/leía/leerá a Sócrates].  
 Plato say.Past.3Sg [ that Aristotle read.Pres/Past/Fut.3Sg to Sócrates].  
     ‘Plato said that Aristotle reads/ read Socrates.’ (Torrego and Uriagereka, 1992)

(18) *Subjunctive Clauses, Spanish*

- a. Platón quiere [CP C que Aristóteles lea/\*leyera/\*leyere a Plato want.3Sg [ that Aristotle read.Subj.Pres/Past/Fut.3Sg to Sócrates].  
Socrates]  
'Plato wants Aristotle to read/ read/ will read Socrates.'
  
- b. Platón quería [CP C que Aristóteles \*lea/\*leyera/\*leyere a Plato want.Past.3Sg [ that Aristotle read.Subj.Pres/Past.3Sg to Sócrates].  
Socrates  
'Plato wanted Aristotle to read/read/will read Socrates.'

(Torrego and Uriagereka, 1992)

Before showing that this is the case for *-mA* vs. *-DIK/-AcAK* clauses also, it is important to note at this point that Turkish has only two tense markers, namely the past tense marker *-DI* and the future tense marker *-AcAK* (Göksel and Kerslake, 2005).<sup>8</sup> However, Turkish does have various aspectual markers, namely, *-mIş* (Perfective Aspect), *-Iyor* (Imperfective Aspect: progressive or habitual), *-(A/I)r/-z* (Imperfective Aspect: habitual).<sup>9,10</sup> The past tense marker *-DI* (but not the future tense marker *-AcAK*) and the aspectual markers may

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<sup>8</sup>(Kornfilt, 1996), who makes a true-tense and a participal-tense distinction, argues that Turkish has only two genuinely verbal simple finite forms, namely the definite past *-DI* and the conditional *-sA*. All other tense-aspect-mood inflections are argued to be inflections of the copula and not of the main verb. This claim is based on the differences regarding agreement suffixes, stress patterns, and patterns of negation. See Kornfilt (1996) for a detailed discussion of this issue.

<sup>9</sup>(Göksel and Kerslake, 2005) categorize *-DI* not only as the past tense marker but also as a perfective aspect marker. The perfective aspect marker *-mIş* is also listed as a relative past tense marker.

<sup>10</sup>See Göksel and Kerslake (2005) for a detailed analysis of the Turkish Tense, Aspect and Modality system.

occur independently of one another, or they may occur together, as shown below:

*Matrix Clause Verb in the Past Tense*

- (19) Mete-Ø kos-**tu**-Ø.  
Mete-Nom run-Past-3Sg  
'Mete ran.'

*Matrix Clause Verb with Aspectual Marker; Progressive*

- (20) Mete-Ø kos-**uyor**-Ø.  
Mete-Nom run-Prog-3Sg  
'Mete is running.'

*Matrix Clause Verb with Aspectual Marker; Imperfective (Habitual)*

- (21) Mete-Ø kos-**ar**-Ø.  
Mete-Nom run-Aor-3Sg  
'Mete runs.'

*Matrix Clause Verb with a Combination of Past Tense and Aspectual Marker; Imperfective (Progressive)*

- (22) Mete-Ø kos-**uyor-du**-Ø.  
Mete-Nom run-Prog-Past-3Sg  
'Mete was running.'

*Matrix Clause Verb with a Combination of Past Tense and Aspectual Marker; Imperfective  
(Habitual)*

- (23) Mete-Ø kos-ar-dı-Ø.  
 Mete-Nom run-Aor-Past-3Sg  
 'Mete used to run.'

However, the *-DIK/-AcAK* nominalizer cannot co-occur with any of these tense or aspectual markers as the examples below show:<sup>11</sup>

<sup>11</sup> Although such aspect/tense markers cannot co-occur with the *-DIK/-AcAK* or *-mA* nominalizer on the embedded main verb, there is still a way for aspect markers to appear in these embedded clauses. Turkish has a periphrastic construction with the copula verb *ol-* 'to be, to become' that is utilized in both root clauses as well as *-DIK/-AcAK* and *-mA* clauses. However, such periphrastic constructions are not very common in the language, and my personal impression is that it is used only to emphasize the event time.

*Periphrastic Construction with *ol-* in a Root Clause*

- (i) Yarın akşam git-miş ol-acağ-im.  
 tomorrow evening go-Perf be-Fut-1Sg  
 'I will be gone tomorrow evening.'
- (ii) Hakan-a para ver-miş ol-du-m  
 Hakan-Dat Money give-Perf be-Past-1Sg  
 'I gave Hakan money' (better: I happened to give Hakan some Money)

*Periphrastic Construction with *ol-* 'to be' in a *-DIK/-AcAK* Clause*

- (iii) O [ ben-im yarın akşam git-miş ol-acağ-im ]-a inan-mi-yor-Ø.  
 He [ I-Gen tomorrow evening go-Perf be-AcAK-1SgPos ]-Dat believe-Neg-Prog-3Sg  
 'He doesn't believe that I will be gone tomorrow evening.'
- (iv) O [ ben-im Hakan-a para ver-miş ol-duğ-um ]-u duy-du-Ø.  
 He [ I-Gen Hakan-Dat Money give-Perf be-DIK-1SgPoss ]-Acc hear-Past-3Sg  
 'He heard that I gave Hakan money' (better: He heard that I happened to give Hakan Money)

*Embedded -DIK/-AcAK Nominalized Clause with Imperfective Aspect (Progressive)*

- (24) Asu [ Ece-nin kitap oku-(**\*yor-**)**dug**-un ]-u yakında duy-acak-Ø.  
       Asu [ Ece-Gen book read-(Prog-)DIK-3SgPoss ]-Acc soon hear-Fut-3Sg  
       ‘Asu will soon hear that Ece was reading a book.’

*Embedded -DIK/-AcAK Nominalized Clause with Imperfective Aspect (Habitual)*

- (25) Asu [ Ece-nin kitap dağıt-(**\*ir-**)-**dig**-in ]-i yakında  
       Asu [ Ece-Gen book distribute-(Perf-)DIK-3SgPoss ]-Acc soon  
       duy-acak-Ø.  
       hear-Fut-3Sg  
       ‘Asu will soon hear that Ece used to distribute books.’

Nor does the *-mA* nominalizer co-occur with aspectual markers:

*Embedded -mA Nominalized Clause with Progressive Aspect*

- (26) Asu [ Ece-nin kitap yaz-(**\*iyor-**)-**ma**-sin ]-a şaşır-acak-Ø.  
       Asu [ Ece-Gen book write-Prog-mA-3SgPoss ]-Acc be/get.surprised-Fut-3Sg  
       ‘Asu will be/get surprised that Ece is writing a book.’

Tense marking with the *-mA* nominalizer is also ruled out:

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*Periphrastic Construction with ol- ‘to be’ in a -mA Clause*

- (v) Ben [ o-nun git-miş ol-ma-sı ]-a şaşır-dı-m.  
       I [ s/he-Gen go-Perf be-mA-3Sg ]-Dat get.surprised-Past-1Sg  
       ‘I’m surprised that he has left.’

- (vi) [ Hakan-nın Londra-ya taşım-acak ol-ma-sı ]-Ø biz-i üz-dü-Ø.  
       [ Hakan-Gen London-Dat move-Fut be-mA-3Sg ]-Nom we-Acc sadden-Past-3Sg  
       ‘That Hakan will move to London saddened us.’

*Embedded -mA Nominalized Clause with Past Tense*

- (27) Asu [ Ece-nin kitap yaz-(**\*d1**)-ma-sın ]-a kız-dı-∅.  
 Asu [ Ece-Gen book write-Past-mA-3SgPoss ]-Acc be/get.angry-Past-3Sg  
 ‘Asu was/got angry that Ece wrote a book.’

However, it is crucial to note that the nominalizers *-DIK* and *-AcAK* do encode tense, *-DIK* marking [-Fut] events, and *-AcAK* being the marker of [+Fut]:<sup>12</sup>

- *-DIK*: [-Fut] marker
- *-AcAK*: [+Fut] marker

- (28) *Embedded Nominalized Clause with -DIK [-Fut] and -AcAK [+Fut] Nominalizers*

- a. Asu [ Ece-nin kitap yaz-**dıg**-in ]-1 duy-**acak**-∅.  
 Asu [ Ece-Gen book wrote-DIK-3SgPoss ]-Acc hear-Fut-3Sg  
 ‘Asu will hear that Ece writes/ is writing/ wrote/ had written/ has written/  
 had been writing/ has been writing a book.’
- b. Asu [ Ece-nin (yakında) araba al-**acağ**-in ]-1 duy-**du**-∅.  
 Asu [ Ece-Gen (soon) car buy-AcAK-3SgPoss ]-Acc hear-Past-3Sg  
 ‘Asu heard that Ece will (soon) buy a car’

The nominalizer *-mA*, on the other hand, does not encode any tense. Since the *-mA* clause does not determine where its event should be put, it is fully dependent on the matrix clause for tense specification. As shown in (29), the *-mA* clauses do not have the ability to show

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<sup>12</sup>It is probably not accidental that the nominalizer *-AcAK* marks [+Fut] just as the aspectual marker *-AcAK* marks [+Fut]. The same goes for the nominalizer and [-Fut] marker *-DIK*, which is thought to be related to the Past tense marker *-DI*. In fact, Kural (1993) argues that the *-K* in both *-DIK* and *-AcAK* is a complementizer. Later in this chapter we see that Kural’s (1993) view regarding the *-K* morpheme cannot be correct.

when the event happens, and it is the matrix verbs that determine the event times of the *-mA* clauses:

(29) *Embedded Nominalized Clauses with the -mA Nominalizer*

- a. Asu [ Ece-nin kitap yaz-**ma**-sin ]-1 iste-**di**-Ø.  
 Asu [ Ece-Gen book write-mA-3SgPoss ]-Acc want-Past-3Sg  
 ‘Asu told/asked Ece to write a book.’
- b. Asu [ Ece-nin kitap yaz-**ma**-sin ]-1 iste-**yecek**-Ø.  
 Asu [ Ece-Gen book write-mA-3SgPoss ]-Acc want-Fut-3Sg  
 ‘Asu will ask/ tell Ece two write a book.’

We thus see that *-DIK/-AcAK* clauses are independent tense domains, just as any other indicative clause, and that *-mA* clauses rely on their matrix clause for tense specification, which is a known property of subjunctive clauses.

### 4.3.3 Types of Verbs that Govern the Subjunctive and the Indicative Moods Cross-linguistically

To account for the distribution of the subjunctive and indicative moods cross-linguistically is beyond the scope of this chapter. Nevertheless, it has been acknowledged that mood distribution is not completely random (cf. Farkas, 1992, among others). For example, the groups of verbs that govern subjunctive complements have been given the following semantic labels:<sup>13</sup>

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<sup>13</sup>Despite the overlap of indicative and subjunctive governors across languages, there are some well-known cross-linguistic differences. For examples, epistemic predicates select for a subjunctive proposition in Italian, but an indicative one in French and Romanian. Likewise, factive-emotives (true factives) select for the indicative in Romanian, but select for either the indicative or subjunctive in French. Moreover, control

- desideratives: *want, wish, desire, ...*
- directives: *order, ask, request, ...*
- permissives and interdirective: *allow, forbid, ...*
- factive emotives: *regret, be sad, ...*

(Farkas, 1992)

Verbs governing the indicative can be grouped under various semantic labels as well:

- declaratives: verbs of saying, ...
- predicates of certainty: *know, be sure, ...*
- fiction verbs: *dream, imagine, lie, ...*
- commissives: *promise, ...*

(Farkas, 1992)

Crucially, verbs that govern *-mA* nominalized clauses overlap substantially with the verbs that govern the subjunctive mood in other languages. Likewise, verbs that govern *-DIK/-AcAK* nominalized clauses in Turkish govern the indicative mood in other languages:<sup>14</sup>

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predicates select for the infinitive in French, but for the subjunctive in Romanian. As far as Turkish is concerned, epistemics predicates select for the indicative, factive-emotives (true factives) can select for either the indicative or subjunctive, and control predicates select for the infinitive.

<sup>14</sup>For a more detailed list of predicates/ predicate types that are used with *-mA* and *-DIK/-AcAK*, see Appendix C.

(30) -mA *Clause with verbs that govern the subjunctive*

- a. Hakan [ Timur-un git-me-sin ]-i ist-iyor-∅/ emred-iyor-∅.  
 Hakan [ Timur-Gen go-mA-3SgPoss ]-Acc want-Prog-3Sg/ order-Prog-3Sg  
 'Hakan wants/ orders for Timur to go.'
- b. Hakan [ Timur-un git-me-sin ]-e izin ver-di-∅/  
 Hakan [ Timur-Gen go-mA-3SgPoss ]-Dat permission give-Past-3Sg/  
 üzül-dü-∅.  
 be.sad-Past-3Sg  
 'Hakan allowed/ was sad for Timur to go.'

(31) -DIK/-AcAK *Clause with verbs that govern the indicative*

- a. Hakan [ Timur-un git-tığ-in ]-i söyle-di-∅/ bil-iyor-∅/  
 Hakan [ Timur-Gen go-DIK-3SgPoss ]-Acc said-Past/ know-Prog-3Sg/  
 hayal et-ti-∅.  
 imagine do-Past-3Sg  
 'Hakan said/ knows/ imagined that Timur went/ left.'
- b. Hakan [ Timur-un gid-eceğ-in ]-e söz ver-di-∅.  
 Hakan [ Timur-Gen go-AcAK-3SgPoss ]-Dat promis give-Past-3Sg  
 'Hakan promised that Timur will go.'

The fact that -mA clauses occur with verbs that govern the subjunctive cross-linguistically, as well as the overlap of verbs that take a -DIK/-AcAK clause with the verbs that are known to govern the indicative provides another piece of evidence as to why -mA clauses should be considered subjunctive clauses and -DIK/-AcAK clauses as indicative clauses.

#### 4.3.4 The Declarative vs. Directive Meaning with the Verb ‘to say’

In several languages the verb ‘to say’ may select for both a subjunctive and an indicative complement clause, in which case the meaning of the verb changes depending on the mood of the complement. For example, in (32a) and (33a) the complements are in the indicative. The verb ‘to say’ in the matrix clause is in this case a *declarative* as it conveys an assertion made by *Ion* and *She* respectively. In (32b) and (33b), however, the complements are in the subjunctive. The same verb in the matrix clause in this case is a *directive* since it reports a directive of *Ion* and *She* respectively.

(32) *Romanian verb a spune ‘to say’ governing both the subjunctive and the indicative*

- a. Ion a spus [ că Maria a plecat ].  
Ion has said [ that.IND Maria has.IND. left ]  
'Ion has said that Maria left.' (translation mine)
- b. Ion a spus [ ca Maria să plece imediat ].  
Ion has said [ that.SUB Maria SUB leave immediately ]  
'Ion told Maria to leave immediately.' (translation mine)

(Farkas, 1984)

(33) *Catalan verb dir ‘to say’ governing both the subjunctive and the indicative*

- a. Diu que t-enyora.  
say.3Sg that you-miss.3Sg.IND  
'She says that she misses you.'
- b. Diu que li escriguis.  
say.3Sg that her/him write.Pres.2Sg.SUB.  
'She tells you to write to her/him.'

(Quer, 1998)

The same distinction exists in Turkish as well. The verb *söyle*- ‘to say’ can be used with both *-DIK/-AcAK* and *-mA* clauses, but the meaning of the verb changes with the mood of the complement, in the same way it does in the Romanian and Catalan cases:

- (34) *Söyle-* with *-mA* and *-DIK/-AcAK*

  - a. Hakan [ Timur-un git-**tig**-in ]-i    **söyle**-di-Ø.  
 Hakan [ Timur-Gen go-DIK-3SgPoss ]-Acc say-Past-3Sg  
 'Hakan said that Timur went away/ left.' *Declarative*
  - b. Hakan [ Timur-un git-**me**-sin ]-i    **söyle**-di-Ø.  
 Hakan [ Timur-Gen go-mA-3SgPoss ]-Acc say-Past-3Sg  
 'Hakan told Timur to go.' *Directive*

With a *-DIK/-AcAK* nominalized clause in (34a) the verb *söyle-* ‘to say’ is a *declarative*, while with the *-mA* nominalized clause in (34b) it is a *directive*. The distinction of *declarative* versus *directive* with the verb *söyle-* ‘to say’ is another piece of evidence that *-mA* clauses are subjunctives and *-DIK/-AcAK* clauses are indicatives.

#### 4.3.5 Types of Adjunct Clauses: Reason and Purpose Clauses

The types of adjunct clauses that occur with *-mA* on the one hand and *-DIK/-AcAK* on the other show yet again that the *-mA* nominalized clauses are subjunctive clauses, whereas *-DIK/-AcAK* clauses are indicative clauses. We see that *purpose clauses* are uniformly in the subjunctive mood across languages, whereas *reason clauses* uniformly govern the indicative:

*Italian*

- (35) Sono uscita di casa **affinché** lei **studi/ \*studia** in pace.  
I.am exited of house so.that she study.3Sg.Subj./ study.3Sg.Ind. in peace  
'I left the house so that she studies in quiet.'

*Spanish*

- (36) Yo me fuí de la casa **para que** ella  
I Refl. go.1Sg.Preterit of the house for that she  
**estudiara/ \*estudiaba** en paz.  
study.3Sg.Imperf.Subj./ study.3Sg.Imperf.Ind. in peace  
'I left the house so that she studies in quiet.'

*Romanian*

- (37) Am închis televizorul **pentru ca** Sally **să studieze** pentru examen.  
I turned off the TV so that Sally studies for her exam.

In Turkish it is the *-mA* nominalizer that occurs in *purpose clauses*:<sup>15</sup>

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<sup>15</sup>Using the *-DIK/-AcAK* nominalizer in such clauses renders the sentence ungrammatical:

*Turkish, Reason Clause*

- (i) \*[[ Ezgi-nin (rahatça) ders çalış-**tıg-1** ] **icin**] ev-den çık-tı-m.  
[[ Ezgi-Gen (comfortably) lesson study-DIK-3SgPoss ] for ] house-Abl leave-Past-1Sg  
Intended: 'I left the house so that Ezgi studies (comfortably).'

The ungrammaticality is caused by the fact that adjunct *-mA* clauses/ purpose clauses require a subject with genitive case, whereas adjunct *-DIK/-AcAK* clauses/ reason clauses require the subject to be in the nominative case.

*Turkish, Purpose Clause*

- (38) Ezgi-nin rahatça ders çalış-**ma-sı** ] **için** ] ev-den  
[[ Ezgi-Gen comfortably lesson study-mA-3SgPoss ] for ] house-Abl  
çık-tı-m.  
leave-Past-1Sg  
'I left the house so that Ezgi studies comfortably'

*Turkish, Purpose Clause*

- (39) Alper [[ eş-i-nin güzel bir tatil yap-**ma-sı** ] **için** ] her  
Alper [[ spouse-3SgPoss-Gen nice a vacation do-mA-3SgPoss ] for ] every  
gün çalış-tı-Ø.  
day work-Past-3Sg  
'Alper work every day so that his spouse can take a nice vacation.'

As the following examples from Romanian, Spanish, and Italian show, *reason clauses* uniformly govern the indicative.

*Italian*

- (40) Sono uscita di casa **perché** Ø **ha/ \*abbia** bisogno  
I.am exited of house because she/he have.3Sg.Ind./ have.3Sg.Subj. need  
di carta.  
of paper.  
'I left the house because she needs paper.'

*Spanish*

- (41) Salí de la casa **porque** ella **necesitaba/ \*necesitara**  
go.out.Preterit of the house because she need.3Sg.Imperf.Ind./  
papel.  
need.3Sg.Imperf.Subj. paper  
'I left the house because she needs paper.'

*Romanian*

- (42) Am preparat cena **pentru că** lui Sally **îi era/ \*să fie** foame.  
 I prepared dinner, because Sally was hungry.

Consistent with the above data, in Turkish reason clauses, only *-DIK/-AcAK* can be used:<sup>16</sup>

*Turkish*

- (43) [[ Cengiz-Ø acık-**tıg-1** ] **için** ] yemek yap-tı-m.  
 [[ Cengiz-Nom get.hungry-DIK-3SgPoss ] because/as ] food do-Past-1Sg  
 'I prepared food because Cengiz got hungry.'

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<sup>16</sup>Note that the *-mA* nominalizer in reason clauses causes ungrammatical sentences as they require subjects to be in the Genitive.

*Turkish Reason Clauses*

- (i) \*[[ Cengiz-Ø acık-**ma-sı** ] **için** ] yemek yap-tı-m.  
 [[ Cengiz-Nom get.hungry-mA-3SgPoss ] because/as ] food do-Past-1Sg  
 Intended: 'I prepared food because Cengiz gets/got hungry.'
- (ii) \*[[ Ezgi-Ø alkol-lü ol-**ma-sı** ] **için** ] kaza yap-tı-Ø.  
 [[ Ezgi-Nom alcohol-with be-mA-3SgPoss ] because/as ] accident do-Past-1Sg  
 'Ezgi had/caused an accident because she gets drunk/ intoxicated.'

If we use genitive subjects in these sentences, no ungrammaticality arises; however, using the *-mA* nominalizer in these sentences, renders these sentences odd:

*Turkish Reason Clauses*

- (iii) #[[ Cengiz-in acık-**ma-sı** ] **için** ] yemek yap-tı-m.  
 [[ Cengiz-Gen get.hungry-mA-3SgPoss ] because/as ] food do-Past-1Sg  
 'I prepared food so that Cengiz gets/got hungry.'

## *Turkish*

- (44) [[ Ezgi-Ø alkol-lü ol-dugı-u ] **için** ] kaza  
[[ Ezgi-Nom alcohol-with be-DIK-3SgPoss ] because/as ] accident  
yap-tı-Ø.  
do-Past-1Sg  
'Because Ezgi was intoxicated, she had/caused an accident.'

Data on adjunct clauses, too, give us proof that *-mA* clauses are subjunctives and *-DIK/-AcAK* clauses are indicatives.

### **4.3.6 The Overt Pronoun Constraint and Subjunctive Obviation**

Before moving on to the topic of obviation—a phenomenon that occurs in subjunctive clauses—a brief overview of how the *Overt Pronoun Constraint* (OPC) works in Turkish is in order.

Turkish is a well-known *pro*-drop language. As such, it should be subject to Montalbetti's (1984) OPC, which disallows the use of overt pronouns as bound variables in syntactic configurations where *pro* is licensed.

#### ***Overt Pronoun Constraint:***

Overt pronouns cannot link to formal variables if and only if the alternation overt/empty obtains (Montalbetti, 1984).

The following examples from Spanish illustrate this point:

*Referential Antecedent Context*

- (45) *Juan<sub>i</sub>* cree que [ *éli/j* es inteligente ]  
       *Juan<sub>i</sub>* cree que [ *proi/j* es inteligente ]  
       ‘John believes that *hei/j* / *proi/j* is intelligent.’

*Quantified Antecedent Context*

- (46) *Nadie<sub>i</sub>* cree que [ *él<sup>\*</sup>i/j* es inteligente ]  
       *Nadie<sub>i</sub>* cree que [ *proi/j* es inteligente ]  
       ‘Nobody<sub>i</sub> believes that *he<sup>\*</sup>i/j/proi/j* is intelligent.’

(Montalbetti, 1984)

In the Referential Antecedent Context above, both *pro* and the overt pronoun *él* ‘he’ in the embedded clause may refer to the subject, *Juan*, in the matrix clause. However, in the Quantified Antecedent Context, the overt pronoun *él* ‘he’ in the embedded clause cannot refer to the quantified subject *nadie* ‘everyone’. Only *pro* may do so here.

Turkish has two overt pronominals: *o* ‘s/he’ and *kendisi* ‘self’ (see Gürel (2003)). A possessive suffix is attached to the reflexive pronoun stem *kendi* ‘self’ to indicate the person and number of the subject. Although this reflexive form is used to express reflexive relations as seen in (47), it may also be used as a pronoun when it receives the third person singular suffix as shown in (48):

- (47) *Sonay<sub>i</sub>* kendi-si-nii sev-iyor-∅.  
       Sonay self-3SgPoss-Acc love-Prog-3Sg  
       ‘Sonay<sub>i</sub> loves herself’

- (48) O / Kendi-si / pro henüz gel-me-di.  
       S/he / self-3SgPoss / pro yet come-Neg-Past  
       ‘S/he has not come yet.’

Example (48) shows that the subject position can be occupied by either the overt pronouns *o* and *kendisi* or by *pro*.

To see how the OPC works in Turkish, we next examine embedded -DIK/-AcAK clauses in both Referential Antecedent and the Quantified Antecedent Contexts.

### *Referential Antecedent Context*

- (49) Arasi [ o-nun \**i/j* / kendisi-nini/*j* / pro*i/j* zeki ol-dug̃-un ]-u  
 Aras [ he-Gen / self-Gen / pro smart be-DIK-3Poss ]-Acc  
 bil-iyor-∅.  
 know-Prog-3Sg  
 ‘Arasi knows that he\**i/j* / self*i/j* / pro*i/j* is smart.’

### *Quantified Antecedent Context*

- (50) Hiç kimsei [ o-nun \**i/j* / kendisi-nini/*j* / pro*i/j* zeki ol-dug̃-un ]-u  
 Not anybody [ he-Gen / self-Gen / pro smart be-DIK-3Poss ]-Acc  
 düşün-mü-yor-∅.  
 believe-Neg-Prog-3Sg  
 ‘Nobody<sub>i</sub> believes that s/he\**i/j* / self*i/j* / pro*i/j* is smart.’

The examples illustrate that the overt pronoun *o* ‘s/he’ in Turkish can never be coreferential or bound by the matrix subject, whereas the overt pronoun *kendisi* and *pro* do not exhibit such restrictions as they can be either bound by the matrix subject or allow disjoint readings. Thus, we see that both the overt pronoun and the null pronoun in Turkish is not restricted to bound variable contexts (as is the case in Spanish, for example) as proposed by the OPC. To put it differently, there is a contrast between overt and null pronouns in both referential and bound variable antecedent contexts in Turkish, whereas in languages like Spanish this contrast is only seen in bound variable antecedent contexts (cf. Gürel (2003);

cf. Reinhart's (1983) *Coreference Rule* and Heim and Kratzer (1998) on the bound variable interpretation being the default).

With these facts in mind, let us next examine *-DIK/-AcAK* and *-mA* clauses with respect to an important phenomenon within the indicative vs. subjunctive literature, namely that of obviation.

An important difference between *-DIK/-AcAK* and *-mA* clauses is how their implicit subjects are interpreted with respect to the subject in the matrix clause. As the next example shows, the null subject of a *-mA* clause cannot be coindexed with the subject of the matrix clause:

#### *-mA Clause*

- (51) Arasi [  $\emptyset^*i/j$  kazan-ma-sın ]<sub>-1</sub> istiyor.  
Aras [  $\emptyset$  win-mA-3Sg.Poss ]-Acc wants  
'Arasi wants that he $^*i/j$  wins.'

There is no such restriction in the case of *-DIK/-AcAK* clauses:

#### *-DIK/-AcAK Clause*

- (52) Arasi [  $\emptyset i/j$  kazan-dığ-in ]<sub>-1</sub> söyledi.  
Aras [  $\emptyset$  win-DIK-3Sg.Poss ]-Acc said  
'Arasi said that hei $/j$  won.'

Further note that the null subject of the *-mA* clause does not need to be disjoint from the matrix object. This is shown in the example below where the null subject in the embedded clause refers to the indirect object, *Tuğçe*, in the main clause:

-mA Clause, object antecedent

- (53) Arasi Tuğçe-denj [Ø \*i/j git-me-sin ]-i istedi.  
Aras Tuğçe-ABL [Ø go-mA-3Sg.Poss ]-Acc wanted  
'Arasi wanted from Tuğçe<sub>j</sub> that she<sup>\*i/j</sup> leaves.'

When it comes to infinitival clauses, the null subject of the embedded clause must be coindexed with the matrix subject.<sup>17</sup>

*Infinitival*

- (54) Arasi [Øi/\*j kazan-mak ] istiyor.  
Aras [Ø win-mAK ] wants  
'Arasi wants Øi/\*j to win.'

The observation that the implicit subject of a -mA clause does not allow coindexation with the matrix subject, whereas the implicit subject of a -DIK/-AcAK clause does, is observed in languages that have an indicative–subjunctive distinction. For example, in Italian the null (or clitic) subject of a subordinate clause cannot be coindexed with the subject of the related matrix clause if the embedded clause has a subjunctive verb.

*Italian, Subjunctive*

- (55) Gianni vuole che \_ legga un libro a settimana.  
Gianni wants that reads(SUB) one book to week  
'Gianni want him/her to read one book every week'.

\*[ \_ ] = [Gianni] , [ \_ ] ≠ Gianni

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<sup>17</sup>This is expected. The null subject here is PRO.

*Italian, Indicative*

- (56) Gianni ha ditto che - legge un libro a settimana.  
Gianni has said that reads(IND) one book to week  
'Gianni said he reads one book every week'.

[ - ] = [Gianni] , [ - ] ≠ Gianni

*Italian, Infinitival*

- (57) Gianni vuole - leggere un libro a settimana.  
Gianni want read(INF) one book to week  
'Gianni wants to read one book every week'.

[ - ] = [Gianni] , \*[ - ] ≠ Gianni

(Constantini, 2005)

We see the exact same pattern in other languages as well.

*French, Subjunctive*

- (58) Pierrei veut qu'il \*i/j parte.  
Pierre wants that-he leaves(SUB)  
'Pierrei wants him \*i/j to leave.'

*French, Indicative*

- (59) Pierrei a promis qu'il i/j partira  
Piere has promised that he will-leaves(IND)  
'Pierrei promised that hei/j to leave.'

(Farkas, 1992)

*Catalan, Subjunctive*

- (60) [En Jordi]<sub>i</sub> espera que *pro \*i/j* vingui.  
[The Jordi] hopes that pro comes(SUB)  
'Jordi<sub>i</sub> hopes that he<sup>\*i/j</sup> /she will come'

*Catalan, Indicative*

- (61) [En Joan]<sub>i</sub> ha decidit que *pro i/j* telefonarà al Pere.  
[The Joan] has decided that pro call(IND,Fut) to-the Pere  
'Jordi<sub>i</sub> has decided that hei<sub>i/j</sub> /she will call Pere'

(Picallo, 1985)

*Portuguese, Subjunctive*

- (62) [O Manel]<sub>i</sub> deseja que *pro \*i/j* leia mais livros.  
[The Manel] wishes that pro reads(SUB) more books  
'Maneli wishes that he<sup>\*i/j</sup> /she read more books'

*Portuguese, Indicative*

- (63) [O Manel]<sub>i</sub> pensa que *pro i/j* lê bastanetes livros.  
[The Manel] thinks that pro reads(IND) enough books  
'Maneli thinks that hei<sub>i/j</sub> /she reads more books'

(Raposo, 1985)

We see from the examples above that obviation occurs only in subjunctive clauses and never in indicative clauses in these languages. In Turkish, obviation occurs only in *-mA* clauses, but not in *-DIK/-AcAK* clauses, which is another piece of evidence for the claim that *-mA* clauses are subjunctives and *-DIK/-AcAK* clauses are indicatives. Note further

that obviation is not just limited to volitional verbs. As long as they are in the subjunctive, emotive-factive and epistemic predicates also trigger obviation:<sup>18</sup>

*Italian, Emotive-Factive*

- (64) Gianni teme che *pro \*i/j* faccia molti errori.  
Gianni fears that *pro* makes(SUB) many mistakes  
'Gianni fears that he\*i/j/she will make many mistakes'.

*Italian, Emotive-Factive*

- (65) Gianni si rammarica che *pro \*i/j* legga pochi libri.  
Gianni regrets that *pro* reads(SUB) few books  
'Gianni regrets that he\*i/j/she reads few books'.

*Italian, Epistemic*

- (66) Gianni pensa che *pro \*i/j* legga molti libri.  
Gianni thinks that *pro* reads(SUB) many books  
'Gianni thinks that he\*i/j/she reads many books'.

(Constantini, 2005)

The same is true of Turkish. Any subjunctive clause, regardless of whether it is volitional or emotive-factive, will trigger obviation. This is best exemplified by the verbs *kork-* 'to fear' and *üzül-* 'to be sad', one of the few verbs that can take either a *-mA* clause or a *-DIK/-AcAK*

<sup>18</sup>The fact that subjunctive *-mA* may occur with emotive-factive and epistemic predicates as well is yet another piece of evidence that factivity does not determine the choice between *-DIK/-AcAK* and *-mA* clauses. We will come back to this issue in the next sections of this chapter.

clause.<sup>19,20</sup>

*Turkish, Emotive-Factive kork- ‘to fear’ with -mA*

- (67) Arasi [ *pro \*i/j* kaybol-ma-sın ]-dan kork-uyor-∅.  
Aras [ *pro* get.lost-mA-3SgPoss ]-Abl fear-Prog-3Sg  
'Arasi is afraid that he\*i/j will get lost.'

*Turkish, Emotive-Factive üzül- ‘to be sad’ with -mA*

- (68) Arasi [ *pro \*i/j* kaybol-ma-sın ]-a üzül-üyor-∅.  
Aras [ *pro* get.lost-mA-3SgPoss ]-Dat be.sad-Prog-3Sg  
'Arasi is sad that he\*i/j got lost.'

Compare the emotive-factive *-mA* clauses (67) and (68) with the emotive-factive *-DIK/-AcAK* clauses (69) and (70). As (69) and (70) show, obviation does not occur with *-DIK/-AcAK* clauses, even though they are selected by the same emotive-factive verbs:

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<sup>19</sup>Kornfilt (2003) refers to such verbs that allow both a *-DIK/-AcAK* and a *-mA* nominalization types as their complements psychological predicates. According to her, such predicates allow for both the factive (*-DIK/-AcAK*) and the non-factive (*-mA*) nominalization types, without any difference in semantics.

<sup>20</sup>That emotive factive predicates in Turkish can take either the subjunctive or the indicative is not an isolated incident. Giannakidou (2015) and Giannakidou and Mari (2016) state that there are three types of languages: languages in which emotive factive requires the subjunctive (Spanish, Italian, French), languages where emotives select the indicative, and languages that allow both subjunctive and indicative ((Brazilian Portuguese, Catalan, Turkish)). To account for embedded mood choice across languages, they propose an account that is sensitive to both what the embedding predicate *asserts* and what it *presupposes*. They further argue that mood morphemes have definedness conditions that make them sensitive to aspects of the (non)veridicality of the embedding predicate.

*Turkish, Emotive-Factive with -DIK/-AcAK*

- (69) Arasi [ *pro i/j* kaybol-dug/-acağ-un/-in ]-dan kork-uyor-∅.  
Aras [ *pro* get.lost-DIK/AcAK-3SgPoss ]-Abl fear-Prog-3Sg  
'Arasi is afraid that hei/j got/will get lost.'

*Turkish, Emotive-Factive with -DIK/AcAK*

- (70) Arasi [ *pro i/j* kaybol-dug/-acağ-un/-in ]-a üzül-üyor-∅.  
Aras [ *pro* get.lost-DIK/AcAK-3Poss ]-Dat be.sad-Prog-3Sg  
'Arasi is sad that hei/j got lost/will get lost.'

The fact that *-mA* clauses exhibit subjunctive obviation in the same way subjunctive clauses in other languages do and *-DIK/-AcAK* clauses don't, just like indicative clauses in other languages, is yet another piece of evidence that *-mA* clauses are subjunctive clauses, whereas *-DIK/-AcAK* clauses are indicatives.

#### 4.3.7 No Narrow Wh-scope in Subjunctive Clauses

Narrow wh-scope with *-mA* clauses is not possible.

- (71) a. [ *yemeğ-i Ali-nin pişir-me-sin* ]-i söyle-di-m.  
[ food-ACC Ali-GEN cook-NFN-3.Sg ]-ACC tell-PAST-1.SG  
'I said that Ali should cook the food.'
- b. \*[ *yemeğ-i kim-in pişir-me-sin* ]-i söyle-di-m.  
[ food-ACC who-GEN cook-NFN-3.Sg ]-ACC tell-PAST-1.SG  
Intended reading: 'I said who should cook the food.'

(Kornfilt, 2003)

No such restriction exists with *-DIK/-AcAK* clauses, however:

- (72) [ yemeğ-i **kim**-in pişir-**diğ**-in ]-i sor-du-m/ duy-du-m/  
 food-ACC who-GEN cook-FN-3.Sg ]-ACC ask-PAST-1.Sg/ hear-PAST-1.SG/  
 söyle-di-m.  
 tell-PAST-1.SG  
 'I asked/ heard/told who had cook the food.' (Kornfilt, 2003)

Interestingly, it appears that it is a property of subjunctive clauses in general not to allow narrow wh-scope. The following examples from Italian, Spanish, and Romanian illustrate this point:<sup>21</sup>

*Lack of narrow wh-scope in Italian subjunctive clauses*

- (73) Bill vuole che Sally **prepari** la cena.  
 Bill wants.3Sg.Pres.Ind. that Sally prepare.3Sg.Subj. the dinner  
 'Bill wants that Sally cooks dinner.'

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<sup>21</sup> As is the case for Turkish, wide scope wh-readings of subjunctive clauses in these languages are fine:

- (i) Elçin-Ø [ **kim**-in kitap oku-**ma**-**sim** ]-1 iste-di-Ø?  
 Elçin-Nom [ who-Gen food cook-mA-3SgPoss ]-Acc want-Past-3Sg  
 'Who did Elçin want to read (books).'

- (ii) **Chi** é che Bill vuole che **prepari** la cena?  
 Who is that Bill wants.3Sg.Pres.Ind. that prepare.3Sg.Subj. the dinner  
 'Who does Bill want to cook dinner?' Compare with (74)

- (iii) **Dov'è** che Bill preferisce che **vada** John?  
 Where.is that Bill prefer.3Sg.Pres.Ind. that go.3Sg.Subj. John?  
 'Where does Bill prefer John goes?' Compare with (76)

- (iv) **¿Quién** quiere Bill que **cocine** la cena?  
 who want.3Sg.Ind. Bill that cook.3Sg.Subj. the dinner  
 'Who does Bill want to cook dinner?' Compare with (78)

- (74) \*Bill vuole (che) **chi prepari** la cena.  
 Bill wants.3Sg.Pres. (that) who prepare.3Sg.Subj. the dinner  
 Intended reading: 'Bill wants that/for whom to cook dinner.'
- (75) Bill preferisce che John **vada** in Italia.  
 Bill prefer.3Sg.Pres.Ind. that John go.3Sg.Subj. to Italy  
 'Bill prefers that John goes to Italy.'
- (76) \*Bill preferisce (che) John **vada** **dove**.  
 Bill prefer.3Sg.Pres.Ind. (that) John go.3Sg.Subj. where  
 Intended Reading: 'Bill wants John to go where.'

*Lack of narrow wh-scope in Spanish subjunctive clauses*

- (77) Bill quiere que Sally **cocine** la cena.  
 Bill want.3Sg.Ind. that Sally cook.3Sg.Subj. the dinner  
 'Bill wants that Sally to cook dinner.'
- (78) \*Bill quiere que **quien cocine** la cena.  
 Bill want.3Sg.Ind. that who cook.3Sg.Subj. the dinner.  
 Intended: 'Bill want who cooks the food.'
- (79) Bill desea que John **vaya** a Colombia.  
 Bill wish.3Sg.Ind. that John go.3Sg.Subj. to Colombia  
 'Bill wishes that John goes to Colombia.'
- (80) \*Bill desea que John **vaya** **a dónde**.  
 Bill wishes that John go.3Sg.Subj. where  
 Intended: 'Bill wishes that John goes where.'

*Lack of narrow wh-scope in Romanian subjunctive clauses*

- (81) Bill vrea ca Sally să gătească cina.  
 Bill wants for Sally to cook dinner.
- (82) \*Bill vrea ca cine să gătească cina.  
 Bill wants for who to cook dinner.

- (83) \*Bill vrea ca Sally să meargă unde.  
           Bill wishes for Sally to go       where.

The fact that *-mA* clauses do not allow narrow wh-scope was one of the reasons which led Kornfilt (2003) to assume that *-mA* clauses lack a CP-layer. However, the reason why *-mA* clauses do not allow narrow wh-scope does not (necessarily) follow from the lack of a CP layer. Note that the examples of subjunctive clauses in Romanian, Italian, and Spanish given above all exhibit a complementizer, an indication that a CP-layer is present, yet narrow wh-scope is not allowed. I argue that the reason why narrow wh-scope is not possible in such constructions is simple due to selection, i.e., none of these verbs above select for a C[+wh]. Note that even in English such constructions are bad.<sup>22</sup>

Based on the evidence listed above, we conclude that *-mA* nominalized clauses are subjunctives, whereas *-DIK/-AcAK* nominalized clauses are indicatives.<sup>23</sup>

#### 4.3.8 Does Factivity Determine the Choice Between *-DIK/-AcAK* and *mA*?

Table 4.1 shows that factivity (or the lack thereof) has been claimed to be the reason behind the selection of *-mA* vs. *-DIK/-AcAK*.<sup>24</sup> However, it is easy to proof that this is not the

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<sup>22</sup>While arguing that selection is responsible for the lack of narrow wh-constructions in such sentences, I will not rule out the possibility that the semantics of the subjunctives might be the underlying reason for this selectional restriction. I will leave this issue for future research.

<sup>23</sup>We can rule out realis/ irrealis as a factor determining the choice between *-DIK/-AcAK* and *-mA* just based alone on the fact the factive-emotives (true factives) occur with subjunctive *-mA* clauses (contra Kornfilt and Whitman (2011)). See Siegel (2009) for a relevant discussion on other languages.

<sup>24</sup>Table 4.1 shows that *-DIK/-AcAK* has also been claimed by some to be as an aspectual marker, whereas *-mA* has also been classified as an action nominal. Note, however, there is nothing inherently in such

case. Evidence from the types of verbs/predicates *-mA* and *-DIK/-AcAK* are used with, NPI-licensing, and wh-extraction, show that factivity is not involved in the choice between *-mA* vs. *-DIK/-AcAK*.

## Predicate Types

As shown below, factive and non-factive predicates may be used with both *-DIK/-AcAK* and *-mA* nominalizers.<sup>25</sup>

*-DIK/-AcAK Clause with Factive, Non-emotive Predicate unut ‘forget’*

- (84) Alp-Ø [ Gizem-in hasta ol-dug-un ]-u unut-tu-Ø.  
 Alp-Nom [ Gizem-Gen sick be-DIK-3SgPoss ]-Acc forget-Past-3Sg  
 ‘Alp forgot that Gizem is sick.’

*-DIK/-AcAK Clause with Non-Factive, Epistemic Predicate düşün ‘think, assume’*

- (85) Alp-Ø [ Gizem-in hasta ol-dug-un ]-u düşün-üyör-Ø.  
 Alp-Nom [ Gizem-Gen sick be-DIK-3SgPoss ]-Acc think-Prog-3Sg  
 ‘Alp thinks that Gizem is sick.

categorizations that would determine the choice between *-mA* vs. *-DIK/-AcAK* nominalizations. Further note that terms/ labels such as “(perfect) aspectual marker” (in the case of *-DIK/-AcAK*) and “action nominal” (in the case of *mA*) are not comprehensive or distinct enough terms. To be more specific, the label “(perfect) aspectual marker” does not account for the various properties that *-DIK/-AcAK* nominalizations showcase. Nor does the the label “action nominal” explain the behavior of *-mA* nominalizations. Given the fact that Koptjevskaia-Tamm (1993) considers all nominalizations in Turkish (including *mA*, *-DIK/-AcAK* and the gerund *-I\$*) to be action nominals, the classification of *-mA* nominalizations as such is especially uninformative and cannot account for the various properties outlined above (subjunctive obviation, the occurrence of *-mA* in purpose clauses, etc.)

<sup>25</sup>For a list of predicates and whether they are used with *-mA* and *-DIK/-AcAK*, refer to Appendix C.

*-mA Clause with Non-factive, Emotive Predicate imkansız ‘impossible’*

- (86) [ Gizem-in iyileş-me-si ]-Ø imkansız.  
       [ Gizem-Gen heal/recover-mA-3SgPoss ]-Nom impossible  
       ‘For Gizem to recover is impossible/ It is impossible for Gizem to recover.’

*-mA Clause with Factive, Emotive Predicate üzücü ‘sad’<sup>26</sup>*

- (87) [ Gizem-in hast ol-ma-sı ]-Ø üzücü.  
       [ Gizem-Gen sick be-mA-3SgPoss ]-Nom sad  
       ‘For Gizem to be sick is sad/ That Gizem is sick is sad.’

One class of predicates, True Factives (a.k.a. Factive, Emotive Predicates), can take both -DIK/-AcAK and -mA clauses:<sup>27</sup>

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<sup>26</sup>Diesing (p.c) mentions that in English, this is arguably non-factive:

(i) It is sad for Max to be sick, so it is a good thing that he is healthy.

(ii) The factive reading requires a tensed clause, making this an odd sentence:

(iii) #It is sad that Max is sick, so it is a good thing that he is healthy.

In Turkish, despite the lack of Tense properties in -mA clauses, such clauses are always factive.

<sup>27</sup>Note that when a nominalized clause occurs in the subject position of such factive-emotive predicates, the nominalized clause is necessarily a -mA clause (see Kornfilt (2003)).

- (i) a. [ Gizem-in kazan-ma-sı ]-Ø ben-i sevin-dir-di.  
       [ Gizem-Gen win-mA-3SgPoss ]-Nom I-Acc be.happy-Caus-Past-3Sg  
       ‘It made me happy that Gizem won/ For Gizem to win made me happy.’
- b. \*[ Gizem-in kazan-dığ-ı ]-Ø ben-i sevin-dir-di.  
       [ Gizem-Gen win-DIK-3SgPoss ]-Nom I-Acc be.happy-Caus-Past-3Sg  
       Intended: ‘It made me happy that Gizem won/ That Gizem won made me happy.’

- (88) a. [ Gizem-in    yarışma-yı       kazan-**ma**-sıń    ]-a    **sevin-di-m.**  
           [ Gizem-Gen competition-Acc win-mA-3SgPoss ]-Dat be.happy-Past-1Sg  
           'I'm happy that Gizem won the competition./ I'm happy for Gizem to win the  
           competition'
- b. [ Gizem-in    yarışma-yı       kazan-**dıg**-ıń    ]-a    **sevin-di-m.**  
           [ Gizem-Gen competition-Acc win-DIK-3SgPoss ]-Dat be.happy-Past-1Sg  
           'I'm happy that Gizem won the competition.'

Given the data above, we see that factivity is not what determines the choice between *-mA* and *-DIK/-AcAK*.

### NPI-Licensing

It is known that long-distance NPI-licensing in English is generally available in non-factive clausal complements, but not in factives:

- (89) It's **not likely** that he will lift a finger until it's too late.

- (90) \*It does **not bother** me that he will lift a finger until it's too late.

(Kiparsky and Kiparsky, 1970, p. 162)

- (91) I **don't believe** [ (that) Jim slept a wink last night ].

- (92) \*I **don't regret** [ that Jim slept a wink last night ].

(de Cuba, 2007, p. 99)

Both *-DIK/-AcAK* and *-mA* clauses can be used in contexts in which an NPI is licensed. What is crucial here is the semantics of the clause: Factive clauses, whether formed with

*-DIK/-AcAK* or *-mA*, do not license NPIs, whereas non-factives, regardless of whether they are formed with the *-DIK/-AcAK* or *-mA* nominalizer, generally do license NPIs.<sup>28</sup> This is evidenced in the sentences below:

(93) *NPI-Licensing, Factive Clauses with -DIK/-AcAK and -mA*

- a. \*[ **Kimse-nin** gel-dig-in ]-i unut-**ma**-di-lar  
 [ Nobody-Gen come-DIK-3SgPoss ]-Acc forget-Neg-Past-3Pl  
 Intended: 'They did not forget that anybody came.'
- b. \*[ **Kimse-nin** git-me-sin ]-e kiz-**ma**-di-m  
 [ Nobody-Gen go-mA-3SgPoss ]-Acc be.angry-Neg-Past-1Sg  
 Intended: 'I did not get angry that anybody went.'

(94) *NPI-Licensing, Non-factive Clauses with -DIK/-AcAK and -mA*

- a. [ **Kimse-nin** gel-eceg-in ]-i san-**mi**-yor-um  
 [ Nobogy-Gen come-AcAK-3SgPoss ]-Acc believe-Neg-Prog-1Sg  
 'I don't believe that anybody will come.'
- b. [ **Kimse-nin** gel-me-sin ]-i iste-**mi**-yor-um  
 [ Nobody-Gen come-mA-3SgPoss ]-Acc want-Neg-Prog-1Sg  
 'I don't want for anybody to come.'

Data from NPI-licensing further show that factivity does not determine the choice between *-DIK/-AcAK* and *-mA* clauses.

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<sup>28</sup>In fact, Kelepir (2001) already noted that it is the semantics of the predicates that determines whether or not long-distance NPIs are licensed. She lists the predicates that allow long-distance licensing, which are the so-called Neg-raising predicates, as *san-* 'think' and *iste-* 'want', perception predicates such as *duy-*'hear', *gor-*'see' and attitude predicates such as *izin ver-* 'allow'.

## Wh-Extraction

Below we see that both *-DIK/-AcAK* and *-mA* clauses behave similarly with respect to wh-adjunct extraction. Starting with *-DIK/-AcAK* clauses, we see that extracting an adjunct out of *-DIK/-AcAK* clauses is not always possible: non-factive clauses allow for wh-adjunct extraction, whereas factive clauses do not.<sup>29</sup>

(95) *Non-factive -DIK/-AcAK clause with why and how*

- a. [ Bilge-nin **niye** Ankara-ya git-**tığ**-in ]-i zanned-iyor-sun?  
 [ Bilge-Gen why Ankara-Dat go-DIK-3SgPoss ]-Acc think-Prog-2Sg  
 'Why<sub>i</sub> do you think Bilge went to Ankara *t<sub>i</sub>*?'
- b. [ Bilge-nin para-yı **nasıl** kazan-**dığ**-in ]-i san-iyor-sun?  
 [ Bilge-Gen money-Acc how win-DIK-3SgPoss ]-Acc believe-Prog-2Sg  
 'How<sub>i</sub> do you believe Bilge earned/won the money *t<sub>i</sub>*?'

(96) *Factive -DIK/-AcAK clause with why and how*

- a. \*[ Bilge-nin **niye** Ankara-ya git-**tığ**-in ]-i öğren-di-n?  
 [ Bilge-Gen why Ankara-Dat go-DIK-3SgPoss ]-Acc findout/learn-2Sg  
 Intended: 'Why<sub>i</sub> did you find out Bilge went to Ankara *t<sub>i</sub>*?'
- b. \*[ Bilge-in para-yı **nasıl** kazan-**dığ**-in ]-i öğren-di-n??  
 [ Bilge-Gen money-Acc how win-DIK-3SgPoss ]-Acc findout/learn-2Sg  
 Intended: 'How<sub>i</sub> did you find out Bilge went to school *t<sub>i</sub>*?'

With *-mA* clauses, too, do we observe a factive and non-factive distinction when it comes to wh-extraction. When selected by a factive predicate, *-mA* clauses do not allow wh-extraction, whereas *-mA* clauses selected by nonfactive predicates do:

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<sup>29</sup>Actually, not all non-factives allow wh-adjunct extraction. It seems that wh-adjunct extraction is limited to epistemic non-factive predicates only.

(97) *Non-factive -mA clause with how and where*

- a. [ Balığ-1 **nasıl** pişir-me-sin ]-i isti-yor-sun?  
[ fish-Acc how cook-mA-3SgPoss ]-Acc want-Past-2Sg  
'How<sub>i</sub> do you want for her to cook the fish *t<sub>i</sub>*?'
- b. [ **Nerede** kal-ma-mız ]-i tercih ed-iyor-sun?  
[ where stay-mA-3PlPoss ]-Acc prefer do-Prog-2Sg  
'Where<sub>i</sub> would/do you prefer for us to stay *t<sub>i</sub>*?'

(98) *Factive -mA clause with how and where*

- a. \*[ Balığ-1 **nasıl** pişir-me-sin ]-e kız-dı-n?  
[ fish-Acc how cook-mA-3SgPoss ]-Acc be.angry-Past-2Sg  
Intended: \*'How<sub>i</sub> did you get angry that she cooked the fish *t<sub>i</sub>*?'
- b. \*[ **Nerede** kal-ma-mız ]-a alın-dı-n?  
[ where stay-mA-3PlPoss ]-Acc resent-Past-2Sg  
Intended: \*'Where<sub>i</sub> did you resent for us to stay *t<sub>i</sub>*?'

Once again we rule out factivity as a factor that determines the choice between *-DIK/-AcAK* and *-mA* nominalizers.

#### 4.3.9 Interim Conclusion

I have provided evidence that mood is what determines the choice between *-DIK/-AcAK* and *-mA* nominalizers: *-DIK/-AcAK* was shown to be the indicative marker, whereas *-mA* was argued to be the subjunctive marker in Turkish. Having provided appropriate labels to *-DIK/-AcAK* and *-mA*, the next order of business is to give an analysis for their syntactic structure.

## 4.4 Structure of *-DIK/-AcAK* and *-mA* Clauses

In this section, I will briefly go over the more widely accepted syntactic structures that have been proposed for *-DIK/-AcAK* and *-mA* clauses, as well as syntactic structures that may be assumed for *-DIK/-AcAK* and *-mA* clauses. In doing so, I will not only point out some problems each of these syntactic structures face, but I will identify some further properties of *-DIK/-AcAK* and *-mA* clauses that need to be accounted for. The following are the structures that I will discuss in the next subsections:

- *-DIK/-AcAK* and *-mA* nominalizations are Poss-ing Gerunds (section 4.4.1).
- *-DIK/-AcAK* nominalizations have an External Head (most recently Aygen (2002, 2007); section 4.4.2).
- A *-DIK/-AcAK* nominalization is a DP over an IP (Kennelly (1996); section 4.4.3).
- A *-DIK/-AcAK* nominalization is a CP over a DP/ Nominal AgrP (Kornfilt (2003); section 4.4.4).
- A *-DIK/-AcAK* nominalization is a DP over a CP (section 4.4.5).

### 4.4.1 Are *-DIK/-AcAK* and *-mA* Nominalizations Poss-ing

#### Gerunds?

Given its structural resemblance to English Poss-ing constructions, it is tempting to consider such nominalized clauses to be simply gerunds. Such an assumption, however, is faulty. First, Turkish has a gerundive marker, namely the suffix *-Iş*:<sup>30</sup>

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<sup>30</sup>According to Underhill (1976), the *-DIK/-AcAK* and *-mA* morphemes are gerundives, whereas *-Iş* is a deverbal nominal.

*Gerundive -Is*

- (99) Soner-Ø [ Göksel-**in** gid-**ış-in** ]-**i** hatırlı-yor-Ø.  
           Soner-Nom [ Göksel-Gen go-Is-3SgPoss ]-Acc remember-Prog-3SgV  
           ‘Soner remembers Göksel’s leaving.’

Furthermore, the examples below illustrate that Turkish nominalized clauses, unlike Turkish gerunds, do not pattern with Poss-ing gerunds with respect to distributional and sentential properties. Rather, Turkish nominalized clauses pattern with English *that*-clauses, as is shown below. For example, short wh-movement is not possible with gerunds (-*Ing* and -*Is*), while Turkish nominalized clauses and English *that*-clauses do allow it:

*Short Wh-movement, Turkish -Is and English -Ing*

- (100) Mary remembers [ John’s **buying** a car ].
- (101) \*Mary remembers [ **what** John’s **buying** ].
- (102) Göksel [ Soner-**in** arabalı-**ış-in** ]-**i** hatırlı-yor-Ø.  
           Göksel [ Soner-Gen car buy-Is-3SgPoss ]-Acc remember-Prog-3Sg  
           ‘Göksel remembers Soner’s buying a car.’
- (103) \*Göksel [ Soner-**in** ne-(yi) al-**ış-in** ]-**i** hatırlı-yor-Ø.  
           Göksel [ Soner-Gen what-(Acc) buy-Is-3SgPoss ]-Acc remember-Prog-3Sg  
           \*‘Göksel remembers what Soner’s buying.’

*Short WH-Movement, Turkish -DIK/-AcAK Clause and English that-Clause*

- (104) Mary remembers [ that John bought a car ].
- (105) Mary remembers [ **what** John bought ].

- (106) Göksel [ Soner-in arabal-dig̃-in ]<sub>-1</sub> hatirli-yor-Ø.  
 Göksel [ Soner-Gen car buy-DIK-3SgPoss ]-Acc remember-Prog-3Sg  
 'Göksel remembers that Soner bought a car.'
- (107) Göksel [ Soner-in ne-(yi) al-dig̃-in ]<sub>-1</sub>  
 Göksel [ Soner-Gen what-(Acc) buy-DIK-3SgPoss ]-Acc  
 hatirli-yor-Ø.  
 remember-Prog-3Sg  
 'Göksel remembers what Soner bought.'

Another difference between *-Iş* and Poss-ing constructions on the one hand, and Turkish *-DIK/-AcAK* nominalized clauses and English *that*-clauses on the other, is that only the latter may be used in relative clause constructions:

#### *Relative Clause Constructions, Gerunds*

- (108) Mary remembers [ John's buying that car ].
- (109) \*Mary remembers [ that car *i* [ John's buying *ti* ] ].
- (110) Göksel [ Soner-in o arabayı al-ış-in ]<sub>-1</sub>  
 Göksel [ Soner-Gen that car-Acc buy-GER-3SgPoss ]-Acc  
 hatirli-yor-Ø.  
 remember-Prog-3Sg  
 'Göksel remembers Soner's buying that car.'
- (111) \*Göksel [ Soner-in *ti* al-ış-i ] (o) arabayı  
 Göksel [ Soner-Gen buy-GER-3SgPoss ] that car-Acc  
 hatirli-yor-Ø.  
 remember-Neg-Prog-3Sg  
 \*'Göksel remembers that car that Soner's buying.'

#### *Relative Clause Constructions, Turkish -DIK/-AcAK-Clause and English that-Clause*

- (112) Mary remembers [ that John bought that car ].

- (113) Mary remembers [ that car*i* [ that John bought *ti*] ].

- (114) Göksel [ Soner-in o araba-yı al-dığ-in ]<sub>-1</sub>  
           Göksel [ Soner-Gen that car-Acc buy-DIK-3SgPoss ]-Acc  
           hatırlı-yor-∅.  
           remember-Prog-3Sg  
           ‘Göksel remembers that Soner bought that car.’

- (115) Göksel [ Soner-in *ti* al-dığ-<sub>1</sub> ] (o) araba-yı  
           Göksel [ Soner-Gen buy-DIK-3SgPoss ] that car-Acc  
           hatırlı-yor-∅.  
           remember-Neg-Prog-3Sg  
           ‘Göksel remembers that car that Soner bought.’

Furthermore, we see that there are interpretational differences between gerunds on the one hand, and Turkish *-DIK/-AcAK*-clauses and English *that*-clauses on the other, when these are selected by perception verbs:<sup>31</sup>

#### *Perception Verbs, Gerunds*

- (116) Mary heard [ John’s playing the guitar ].

- (117) Göksel [ Soner-in gitar çal-ıṣ-in ]<sub>-1</sub> duy-du-∅.  
           Göksel [ Soner-Gen guitar play-GER-3SgPoss ]-Acc hear-Past-3Sg  
           ‘Göksel heard Soner’s playing the guitar.’

#### *Perception Verbs, Turkish Nominalized Clause and English that-Clause*

- (118) Mary heard [ that John played the guitar ].

- (119) Göksel [ Soner-in gitar çal-dığ-in ]<sub>-1</sub> duy-du-∅.  
           Göksel [ Soner-Gen guitar play-DIK-3SgPoss ]-Acc hear-Past-3Sg  
           ‘Göksel heard that Soner played the guitar.’

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<sup>31</sup>See Kural (1993) for similar data regarding perception verbs in *-DIK/-AcAK* vs. *-Iṣ* clauses.

For the sentences in (116) and (117) to be true, *Mary/ Göksel* must have heard *John/ Soner* play the guitar first hand. However, there is no such condition on *-DIK/-AcAK* and *that*-clauses constructions, as such sentences are true even if *Mary/ Göksel* did not hear the act of guitar playing but just reports of the playing.

Clauses formed with the nominalizer *-mA* are also not Poss-Ing gerunds. First, Poss-Ing gerunds cannot refer to telic durative events as seen in (120) (unlike derived nominals (121) or PRO-ing gerunds (122)) (Siegel, 1998). Turkish *-mA* clauses do not exhibit such restrictions as seen in (123):

#### *Telic Durative Event (Accomplishment)*

- (120) \*Bill Clinton's destroying the memo took an hour.

- (121) The destruction of the memo took an hour.

- (122) PRO destroying the memo took an hour.

Siegel (1998)

- (123) Müdür-ün gazete-ler-i imha et-me-si bir saat sür-dü-∅.  
 Principal-Gen newspaper-Pl-Acc destroy do-mA-3SgPoss one hour last-Past-3Sg  
 'It took an hour for the principal to destroy the newspapers.'

Furthermore, the types of predicates used with Poss-Ing gerunds are different from those that select for *-mA* clauses. For example, desideratives (*want*-type verbs) are used quite frequently with *-mA* clauses, but these cannot be used with Poss-Ing gerunds:

- (124) \*Bill doesn't want Hillary's winning the election.

- (125) Burçin [ Aras-in sigara iç-me-sin ]-i iste-me-di-∅.  
 Burçin [ Aras-Gen cigarette smoke-mA-3SgPoss ]-Acc want-Neg-Past-3Sg  
 'Burçin didn't want (for) Aras to smoke.'

We safely conclude that neither *-DIK/-AcAK* clauses nor *-mA* clauses are Poss-Ing gerunds.

#### 4.4.2 Is there an External Head in *-DIK/-AcAK* and *-mA* Nominalizations?

One major analysis of argument *-DIK/-AcAK* clauses is that they are noun-complement clauses with an abstract (i.e., null) nominal external head, such as *the fact* and *the claim* (Aygen, 2002, 2007).<sup>32,33</sup> According to such a view, the clauses in (126) and (127) would be identical in structure:

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<sup>32</sup>She notes that similar claims were made by Lees (1965), Sezer (1991), Kennelly (1996), and Özsoy (1998).

<sup>33</sup>Aygen (2002, 2007) only talks about *-DIK/-AcAK* clauses and no analysis is proposed for *-mA* clauses. For Lees (1965) there is an abstract noun that may optionally be deleted in *-mA* clauses as well; thus, under his view both *-DIK/-AcAK* and *-mA* nominalized clauses are complex noun-phrases:

- (i) *Factive – General Participle*

- a. Adam-in vergi ver-dig-i olgu-su ...  
 Man-'s tax pay-ing-his fact-its
- b. Adam-in vergi ver-dig-i ...  
 Man-'s tax pay-ing-his  
 'The man's paying his taxes...'

*-DIK/-AcAK Clause, no overt head*

- (126) Ben-Ø [ Hasan-in Jale-yi gör-düg-ün ]-ü bil-iyor-um  
I-Nom [ Hasan-Gen Jale-Acc see-DIK-3SgPoss ]-Acc know-Prog-1Sg  
'I know that Hasan saw Jale.'

*-DIK/-AcAK Clause, overtly headed*

- (127) Ben-Ø [[ Hasan-in Jale-yi gör-düg-ü ] gerçeg-i ]-ni  
I-Nom [ [ Hasan-Gen Jale-Acc see-DIK-3SgPoss ] fact-3SgPoss ]-Acc  
bil-iyor-um.  
know-Prog-1Sg  
'I know the fact that Hasan saw Jale.' Aygen (2007)

The object of the verb in (126) is also a complex NP, but here the head is a phonologically null nominal head.

Adjunct *-DIK/-AcAK* clauses are claimed not to have such an external head, which would then explain why the subjects of adjunct *-DIK/-AcAK* clauses do not have genitive

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(ii) *Action – Action Nominal*

- a. Adam-in vergi ver-me hareket-i ...  
Man-'s tax pay-ment motion-his
- b. Adam-in vergi ver-me-si ...  
Man-'s tax pay-ment-his  
'The man's payment of his taxes...' (Lees, 1965, p. 117)

According to Lees (1965), the abstract noun *olgu* 'fact' in example (i) belongs to a set of nouns marked the feature [+factive], whereas the abstract noun *hareket* 'movement, act' in example (ii) belongs to the set of nouns marked with [+action]. The features of a following predicate adjective or verb would be conditioned by these inherent features of the noun, i.e., the adjective or verb morpheme chosen from the lexicon will match for factive versus action selection. After that, the abstract noun would be optionally deleted, which then leaves these two nominalized sentences as complex noun phrases.

case. Aygen (2007) argues that adjunct -DIK/-AcAK clauses, which have a nominative subject, are CPs where the head of the clause is a complementizer (129):

-DIK/-AcAK Complement clause (=RC); Subject bears genitive

- (128) Ben-∅ [ Ali-nin cam-1 kır-dığ-1 zaman ]<sub>-1</sub>  
          I-Nom [ Ali-Gen glass-Acc break-DIK-3SgPoss time ]<sub>-Acc</sub>  
          bil-iyor-du-m.  
          know-Prog-Past-1Sg  
          'I knew that time when Ali broke the glass.'

-DIK/-AcAK *Adjunct Clause; Zaman ‘when’ is a Complementizer; Subject bears nominative*

- (129) Ben-∅ [ Ali-∅ /\*Ali-nin cam-1 kir-dığ-1 zaman ]  
          I-Nom [ Ali-Nom /Ali-Gen glass-Acc break-DIK-3SgPoss time ]  
          gerçek-i bil-iyor-du-m.  
          truth-Acc know-Prog-Past-1Sg  
          'I knew the truth that time when Ali broke the glass.'              Aygen (2007)

First, it should be noted that not all *-DIK/-AcAK* complements allow such an insertion. Non-factive epistemic predicates, such as *sanmak* ‘assume, think’, *hayal etmek* ‘imagine, dream’, etc., do not allow such head insertion, and yet the subject of such *-DIK/-AcAK* clauses appears with the genitive case (130):<sup>34</sup>

<sup>34</sup>Note that, in English, too, not all predicates do allow the insertion of a head noun such as *fact*:

- (i) I assert the fact that I don't intend to participate. (Kiparsky and Kiparsky, 1970, p. 146)

(ii) \*I see the fact that the Bruins lost. (Hooper and Thompson, 1973, p. 481)

(iii) \*I think the fact that John saw Mary.

See Kiparsky and Kiparsky (1970) and Hooper (1975) for relevant discussion.

- (130) Ben-Ø [ Hasan-**İN** Jale-yi gör-düg-ü ] (\*gerçeg-i/\*iddias-sın/...)-1  
 I-Nom [ Hasan-Gen Jale-Acc see-DIK-3SgPoss ] (fact-3SgN/claim-3SgPoss)-Acc  
 san-iyor-um.  
 assume-Prog-1Sg  
 'I assume/think (\*the fact/\*the claim) that Hasan saw Jale.'

Under Aygen's (2007) analysis, the genitive marking on *Hasan* in (130) is unexplained since no 'genitive-licensing' head-noun is allowed in such sentences. This is one indication that *-DIK/-AcAK* clauses cannot be complex noun phrase constructions.

Furthermore, Kornfilt (2003) points out that the claim that *-DIK/-AcAK* clauses with and without an overt head (see pairs in (126) and (127)) are identical in structure cannot be correct. Kornfilt (2003) gives the following examples from post-verbal scrambling:<sup>35,36</sup>

- (131) *-DIK Clause with no overt head and overtly headed*

- a. [ Hasan-nın kari-sın-dan nihayet kaç-tığ-in ]-1  
     [ Hasan-Gen wife-3Poss-Abl finally escape-DIK-3SgPoss ]-Acc  
     duy-du-m.  
     hear-Past-1Sg  
     'I heard that Hasan finally ran away from his wife.'
- b. [[ Hasan-nın kari-sın-dan nihayet kaç-tığ-1 ] **söylenti-sin**] rumor-CMPM  
     [[ Hasan-Gen wife-3Poss-Abl finally escape-DIK-3SgPoss ] ]-i  
     ] Acc hear-Past-1Sg  
     'I heard the rumor that Hasan finally ran away from his wife.'

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<sup>35</sup>See Kornfilt (2003) for further arguments against an external head analysis of *-DIK/-AcAK* clauses.

<sup>36</sup>Postverbal scrambling in Turkish is generally argued to involve right-ward movement, contra Kayne's LCA (see Kelepir (1994), Akan (2009), Kural (1997) among others). Kornfilt (2005b) believes that such rightward movement might well be limited to PF processes.

(132) *Postverbal Scrambling and -DIK Clause with no overt head and overtly headed*

- a. ?[ Hasan-nın **ti** nihayet kaç-tığ-in ]-i duy-du-m  
[ Hasan-Gen finally escape-DIK-3SgPoss ]-Acc hear-Past-1Sg  
**karı-sın-danı**  
wife-3Poss-Abl  
'I heard that Hasan finally ran away from his wife.'
- b. ??/\*[ [ Hasan-nın **ti** nihayet kaç-tığ-ı ] **söylenti-sin** ]-i  
[ [ Hasan-Gen finally escape-DIK-3SgPoss ] rumor-CMPM ]-Acc  
duy-du-m **karı-sın-danı**  
hear-Past-1Sg wife-3Poss-Abl  
'I heard the rumor that Hasan finally ran away from his wife.'

According to Kornfilt (2003), if both (132a) and (132b) were really identical in structure, we would not expect a difference in grammaticality judgement.

We conclude from the discussion above that nominalized clauses cannot be analyzed as having an external head that would account for the genitive case marking on the subject.

#### 4.4.3 Is a *-DIK/-AcAK* Nominalization a DP over an IP?

According to Kennelly (1996) a *-DIK/-AcAK* clause is a DP over an IP.

- (133) [ Güл-ün o-nu özle-diğ-in ]-den bahset-mış-ti-n.  
[ Güл-Gen him/her/it-Acc miss-[Fut]-3SgPoss ]-Abl mention-Perf-Past-2Sg  
You mentioned that Güл missed him/her/it.

The tree that she suggest for a *-DIK/-AcAK* clause, such as the one in (133), is as follows:

Kennelly (1992) argues that CP is the checking site for Tense. Thus, the absence of Tense is an indication of the absence of CP. She further suggests that the absence of Tense and CP is

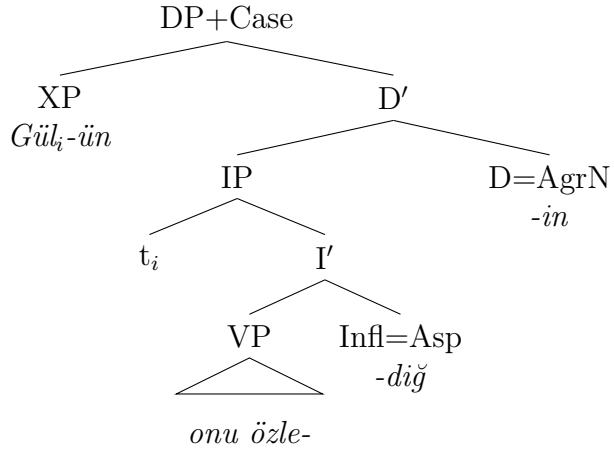


Figure 4.1: Kennelly's (1996) DP over IP Analysis

fundamental to the presence of Case. Since *-DIK/-AcAK* nominalized clauses cannot occur with tense markers and because such clauses only make a distinction between non-future (*-DIK*) and future (*-AcAK*), Kennelly (1992) claims there is no Tense in such nominalized clauses and therefore, also no CP. Her conclusion is that a *-DIK/-AcAK* subordinate clause in Turkish is a DP over an IP, where she reanalyzes the IP in such structures as an AspP. She refers to such nominalized clauses as ‘structure D’. The Spec of DP of such clauses is occupied by the genitive marked subject (the possessor), which moves there from the Spec of IP, and the D<sup>0</sup>, the clausal determiner, is filled by the nominal Agr.

Kennelly (1990) further suggests that the reason that argument *-DIK/-AcAK* clauses have a genitive subject but adjunct *-DIK/-AcAK* clauses do not, is related to L-marking. L-marking an NP (or DP) which dominates the IP has the effect of assigning the property [+Theta] to both the DP and the IP (in Kornfilt (2003)). The subordinate aspectual marker *-DIK/-AcAK* normally assigns nominative Case to [Spec, IP], which is what happens in the case of adjunct *-DIK/-AcAK* clauses. However, under Theta control, Nom assignment is blocked, and in order to satisfy the Case Filter, the NP at [Spec, IP] moves to [Spec, DP], where genitive case is assigned.

However, this structure proposed for *-DIK/-AcAK* clauses cannot be maintained. First, although it is true that in a *-DIK/-AcAK* clause the *-DIK/-AcAK* nominalizers cannot cooccur with other Tense and Aspect markers (which is allowed in root clauses), *-DIK/-AcAK* clauses are independent tense domains, which can be either [+Fut] or [-Fut] as was shown in section 4.3.2. Furthermore, *-DIK/-AcAK* clauses can host operators, i.e., they allow for narrow wh-scope as seen in example (72) and they may appear as the modifying clause of relative clause constructions as shown in example (10), both of which are strong indications that a CP-layer is present in the structure. Therefore, we can safely reject a DP over IP analysis for *-DIK/-AcAK* clauses.<sup>37</sup>

We have seen that *-mA* clauses do not encode tense specifications and that they are not able to host operators. Both of these properties may be good indications that *-mA* clauses lack a CP layer and that they are DPs over IPs; however, in later sections it will be shown that *-mA* clauses must have a CP layer as well. We conclude that a DP over an IP analysis for *-mA* clauses cannot be maintained either.

Another claim that *-DIK/-AcAK* clauses do not involve a CP layer (in this case, above a nominal layer) comes from Borsley and Kornfilt (2000).<sup>38</sup> It is argued that the element *ki* is a realization of C, and because *ki* can only occur with non-nominalized clauses but not with nominalized clauses (see (134) and (135), respectively), they argue that Turkish does not allow a CP above a *-DIK/-AcAK* clause, which is argued to be an AgrNP.

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<sup>37</sup>See Kornfilt (2003) for some conceptual problems of Kennelly (1996).

<sup>38</sup>Specifically, Borsley and Kornfilt (2000) argue that *-DIK/-AcAK* clauses (referred to as factive nominalizations) are AgrNPs over MNP (= nominal mood category).

*ki* with a non-nominalized clause

- (134) Ben-∅ duy-du-m *ki* [ siz-∅ tatil-e çıkış-tı-nız ].  
I-Nom hear-Past-1Sg Comp [ You-Nom vacation-Dat go.out-Past-2Pl ]  
'I heard that you had left for your vacation.'

*ki* with a nominalized clause

- (135) \*Ben-∅ duy-du-m *ki* [ siz-in tatil-e çıkış-tı-gımız ](-1).  
I-Nom hear-Past-1Sg Comp [ You-Gen vacation-Dat go.out-DIK-2PlPoss  
]-Acc

However, this reasoning is faulty. As argued in Chapter 2, *ki*-clauses are assertions, introducing new information into the discourse. As such, they can only select for root clauses. Thus, the reason (135) is ungrammatical is for semantic reasons and does not constitute evidence for or against a CP layer above *-DIK/-AcAK* clauses.

#### 4.4.4 Is a *-DIK/-AcAK* Nominalization a CP over a DP/Nominal AgrP?

Kornfilt (2003) argues that *-DIK/-AcAK* clauses are CPs over DPs/Nominal AgrPs. The tree in 4.2 for example (136) illustrates this structure:

- (136) [ Ali-**nin** kitab-ı oku-düğ-un ]-u  
[ Ali-Gen book-Acc read-FN-3.Sg ]-Acc  
'(that) Ali read the book.' (as direct object) Kornfilt (2003)

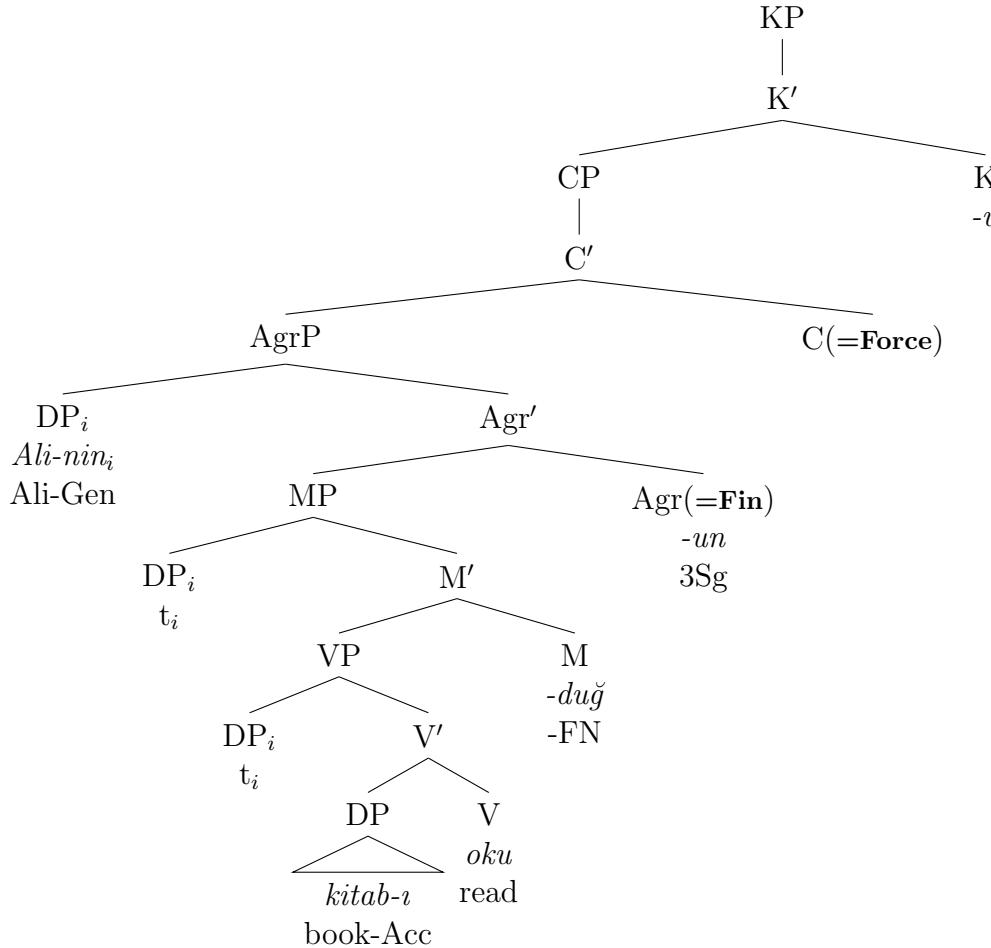


Figure 4.2: Kornfilt's (2003) CP over DP/Nominal AgrP Analysis

Since this claim assumes an analysis involving a *Mixed Extended Projection*, a brief overview of *Mixed Extended Projections* is in order.

Based on the observation that many languages have constructions that are basically clausal but also have certain nominal properties (e.g., the *Poss-ing* construction in English), Borsley and Kornfilt (2000) suggest that such constructions involve a “*Mixed Extended Projection*,” which is a structure in which a verb is associated with one or more nominal func-

tional categories.<sup>39</sup> The structure they propose for sentences such as (137) is given in 4.3:<sup>40</sup>

- (137) Hasan [ *uşağ-in*      *oda-yı*      *temizle-dığ-in-i* ] söyle-di.  
 Hasan [ servant-Gen room-Acc clean-Fact-3Sg-Acc ] say-Past  
 'Hasan said that the servant had cleaned the room.' Borsley and Kornfilt (2000)

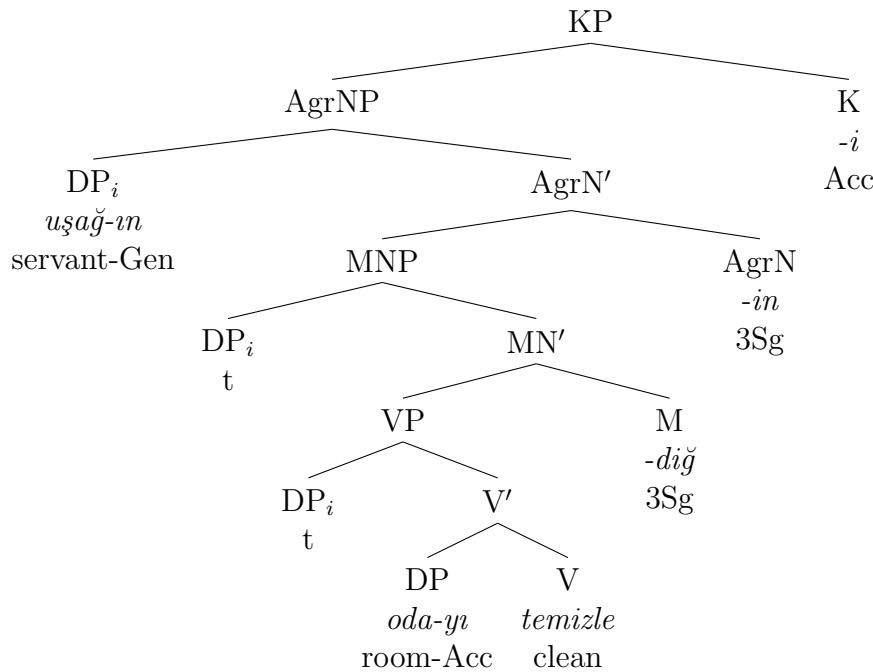


Figure 4.3: Borsley and Kornfilt's (2000) Mixed Extended Projection Analysis

<sup>39</sup>Grimshaw (1991) argues that there are no “mixed extended projections.” She claims that nominal functional categories cannot be associated with a verbal projection (or verbal functional categories with a nominal projection). According to Borsley and Kornfilt (2000), this restriction must be relaxed.

<sup>40</sup>Borsley and Kornfilt (2000) assume that the nominal functional categories might include not only D but also a nominal agreement category such as AgrN. Verbal categories might include I, as well as AgrS (verbal subject Agreement) and/or T(tense).

Borsley and Kornfilt (2000) further state that their analysis predicts that not all combinations of nominal and verbal properties are possible in clausal constructions.<sup>41</sup> Within the literature of *Mixed Projections* one finds two important generalizations:

*Phrasal Coherence:*

The mixed projection “can be partitioned into two categorially uniform subtrees such that one is embedded as a constituent of the other.” (Bresnan (1997); Malouf (2000); see also Borsley and Kornfilt (2000) and Ackema and Neeleman (2004)).

The second generalization states that mixed projections behave externally as nominals.

*Nominal External Behavior:*

Externally, mixed projections behave as nominals. (Borsley and Kornfilt (2000), Malouf (2000), Hudson (2003), among others.)

The biggest problem that Kornfilt’s (2003) “CP over AgrNP/DP” analysis for *-DIK/-AcAK* clauses faces is that it violates both of these principles assumed by Borsley and Kornfilt (2000). The analysis that the outermost layer is a CP goes against the principle of *Nominal External Behavior*, and the fact that the nominal AgrNP layer is between two verbal phrase layers goes against the *Phrasal Coherence* principle. Such an analysis based on *Mixed Extended Projections* without principles that constrain such a system will massively overgenerate and allow for constructions that are (cross-linguistically) non-existent. Even if

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<sup>41</sup>Borsley and Kornfilt (2000) state that their proposal predicts that clausal constructions may only have nominal properties that are associated with nominal functional categories and not nominal properties that are associated directly with N or NP. They further argue that their proposal also predicts that there are no nominal properties that reflect a nominal functional category located below a verbal functional category.

such an analysis is empirically correct, other analyses based on simpler theories are to be preferred.<sup>42</sup>

#### 4.4.5 Is a *-DIK/-AcAK* Nominalization a DP over a CP?

A syntactic structure in which a DP takes a CP does not violate any of the principles of *Mixed Extended Projections*. However, not only is this structure not feasible, it shows that this analysis based on the *Mixed Extended Projections* account fails empirically.

As Kural (1993) shows, object wh-phrases take unambiguous scope over subject QPs in Turkish, i.e., no *family of questions* reading obtains. The root clause in example (138) illustrates this point:<sup>43</sup>

- (138) Herkes-Ø kim-i gör-dü-Ø?  
everyone-Nom who-Acc see-Past-3Sg  
'Who did everyone see?'

- a. For which  $x$ ,  $x$  a human, everyone saw  $x$ ?
- b. \*For every  $y$ ,  $y$  a human, who did  $y$  see?

The same observation is made in *-DIK/-AcAK* clauses, illustrated in (139):

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<sup>42</sup>While for Kornfilt (2003) the nominal Agr in a *-DIK/-AcAK* clause finds itself in between two verbal phrase layers, the nominal Agr in the the *-mA* clause is surrounded by *fully nominal* layers. This difference is important in that it is used to account for the different behavior of the subject case in adjunct clauses (no genitive case on the subject of a *-DIK/-AcAK* clause when in adjunct position and presence of genitive case on the subject of *-mA* clauses when in adjunct position).

<sup>43</sup>Kural (1993) argues that Agr is not an independent head in syntax.

- (139) *pro* [ Herkes-in kim-i gör-düg-ü ]-nü sor-du-m.  
*pro* [ everyone-Gen who-Acc see-DIK-3Poss ]-Acc ask-Past-1Sg  
 ‘I asked who everyone saw?’

- a. I asked for which  $x$ ,  $x$  a human, everyone saw  $x$ .
- b. \*I asked for every  $y$ ,  $y$  a human, who  $y$  saw.

(Kural, 1993, p. 39)

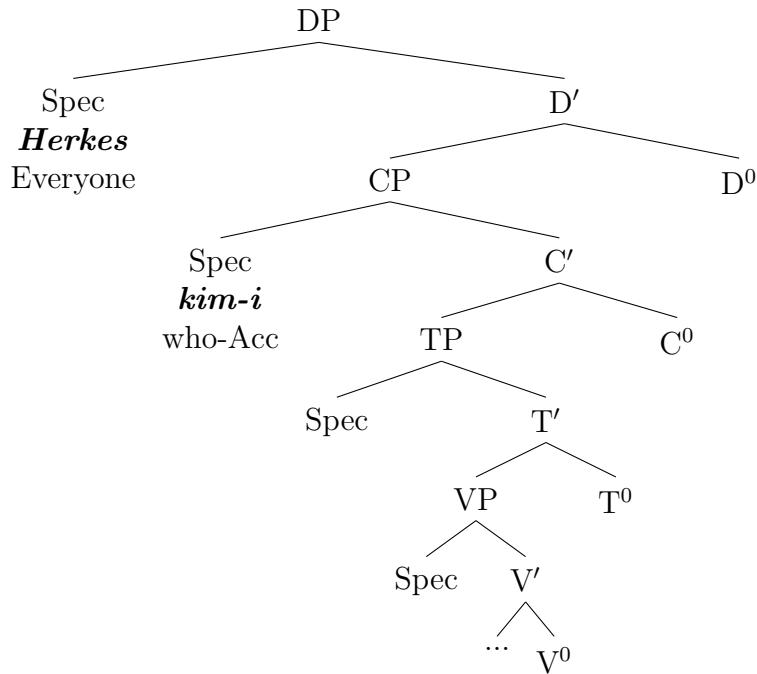


Figure 4.4: Adaptation of Kural’s (1993) tree

If the subject QP *herkes* ‘everyone’ was indeed in [Spec, DP] in (138) and (139) as illustrated above, it would take scope over the object wh-phrase *kimi* ‘whom’ in [Spec, CP] at LF.<sup>44</sup> This, however, would incorrectly predict the readings in (b) in both (138) and

<sup>44</sup>Actually, the tree in Kural (1993) has an AgrP layer instead of a DP layer. Since the agreement involved is of the nominal type, I will simply assume here that for our purposes there is no difference between a (nominal) AgrP and a DP as both of them are assumed to account for nominal agreement.

(139). This means that subjects, including genitive subjects, must be lower than [Spec, CP] at LF, and DP cannot be the outermost layer (see figure 4.4).

Thus, we are facing a problem. If the DP cannot be the outermost layer (i.e., higher than the CP), how do we account for the fact that these nominalized clauses receive case marking? This issue will be addressed in section 4.5.

## 4.5 An Analysis of *-DIK/-AcAK* and *-mA* Clauses

So far what we know about the structure of *-DIK/-AcAK* clauses is as follows:

- A CP layer must be present in *-DIK/-AcAK* clauses. This is to account for the fact that such clauses can host operators.
- The nominal layer, which is responsible for both the genitive case and the nominal agreement marker, can neither be above the CP layer (to account for the fact that object wh-phrases take unambiguous scope over subject QPs in Turkish) nor below the CP layer (to obey the two principles of *Mixed Extended Projections*, namely *Phrasal Coherence* and *Nominal External Behaviour*).

The fact that the nominal layer can neither be below nor above the CP-layer may seem quite puzzling, since it suggest that the CP-layer itself must be a nominal layer. This is in fact, the position taken here. I argue that the CP layer in nominalized clauses is nominal. i.e., C has a strong [-v]/[+n] feature.<sup>45</sup> Other issues that need to be addressed are as follows:

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<sup>45</sup>Note that CPs behave like nominals in a number of ways: CPs may be selected by prepositions (such as in Spanish), they are complements to verbs and thus occur in apparent theta and case positions (though in some languages, like German, they must extrapose (cf. Stowell's (1981) Case Resistance Principle), etc.

- The presence of genitive case marking on the subject in argument -DIK/-AcAK clauses and its absence in adjunct clauses.
- The occurrence of genitive case marking on the subject in both argument and adjunct -mA clauses.
- The presence of nominal agreement on the verb in both argument and adjunct -DIK/-AcAK and -mA clauses.

The following analysis captures these facts.

#### 4.5.1 The Core Arguments

This section discusses the core arguments of the analysis and shows how these core arguments provide an analysis for each of the nominalized clauses (argument and adjunct -DIK/-AcAK clauses, as well as argument and adjunct -mA clauses). The following arguments constitute the core arguments of the proposal:

##### *Core Arguments*

1. The crucial site for case assignment/ checking is C.
2. CP can be either nominal, [-v]/[+n], or verbal, [+v]/[-v].
3. A CP that is [-v]/[+n] requires Case, just like any other NP.

That C is the crucial site for case assignment has been proposed independently by Koopman (1984), Platzack (1986), and Radford (2009), among others, and we will see that C is central to subject case assignment in Turkish as well. That CPs can be either verbal

or nominal is also not a new claim (see, for example, Holmberg (1986)).<sup>46</sup> Furthermore, it is argued here that a nominal CP is case-marked, just like any other NP. That CPs are case-marked goes against Stowell's (1981) well-known *Case Resistance Principle* (CRP). However, Stowell's (1981) CPR has not been without criticism and has been challenged by Chung (1991), Plann (1986), Dubinsky and Davies (2006), Massam (1985), Tsai (1995), Müller and Sternefeld (1995), among others.<sup>47,48</sup>

How each of these core arguments relate to Turkish nominalized clauses is explained next.

## Nominal C

CP arguments can be either nominal, [-v] / [+n], or verbal, [+v] / [-n]. When C is [-v]/[+n], it has a selectional feature that is satisfied by a [-v]/[+n] category only. For example, in English this [-v]/[+n] category is *that* and in German it is *dass*. Note that both *that* and *dass* stem from demonstratives, which are nominal in nature. I argue that the nominal character of these complementizers is not coincidental. The claim that when C has a selection feature [-v]/[+n] it is satisfied by only a [-v]/[+n] category is in accordance with Holmberg's (1986) argument that the features of a CP depend on what is in  $C^0$ . Holmberg (1986) argues that there are three possibilities: (a) a CP may be an argument, in which case  $C^0$  is [-v]; (b) it may modify arguments or predicates, in which case the  $C^0$  is [-/+v]; or (c) it may be a predicate, resembling a VP, and the  $C^0$  is then [+v]. Thus, in Holmberg's (1986) view,

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<sup>46</sup>I address the question as to what the differences between a nominal C and a verbal C are in Chapter 5.

<sup>47</sup>For example, Chung (1991) gives evidence that CPs in Chamarro are Case-marked, Plann (1986) lists examples that show how prepositions take CP comps in Spanish, and Tsai (1995) argues that CPs in Chinese need Case in order to receive thematic roles.

<sup>48</sup>Of course, this raises the issue as to why, for example, German CPs do not receive Case, and why they extrapose. This issue is addressed in Chapter 5.

complementizers like *that* are [-v], just like the head of an NP, the determiner.<sup>49</sup>

- (140) John remembered [ that he had to leave ]

- (141) John remembered [ the birthday of his youngest daughter ] (Holmberg, 1986)

It was already shown that Turkish has no lexical [-v]/[+n] C<sup>0</sup> element. This, however, does not mean that in Turkish there is no means of carrying out the function that a nominal complementizer does. In other words, although Turkish has no overt lexical nominal complementizer such as *that* in English, or *dass* in German, or any other lexical [-v]/[+n] C<sup>0</sup> element in any given language, it still employs a certain strategy to carry out the function of a nominal complementizer. Specifically, I argue that, although C<sup>0</sup> is not occupied by a lexical complementizer, it has a [-v]/[+n] feature nevertheless, which manifests itself through nominalization.

### V-T-C movement

Furthermore, I argue that that Turkish has V-T-C movement (see also Kural (1992)) as a mechanism to check off the [-v]/ [+n] feature of C.<sup>50</sup>

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<sup>49</sup>The terms NP and DP are used interchangeably in this dissertation.

<sup>50</sup>Although both Kural and I argue for V-T-C movement in Turkish, we drastically differ in the way such movement is motivated as well as what the C element in Turkish is.

## Case Assignment from C

Consequently,  $C^0$  is responsible for the case on the subject. Note that the role that C plays in subject case is similar to proposals made by Koopman (1984) and Platzack (1986) for Germanic nominative case assignment. Both assume that nominative case is assigned from  $C^0$ , and to assign this case,  $C^0$  must be lexical. In embedded clauses, nominative is assigned by the complementizer in  $C^0$ ; however, since there is no complementizer in main clauses, something must move to  $C^0$ , namely the finite verb, hence V-to-T-to-C movement in Germanic.<sup>51</sup>

How this general proposal works in detail with respect to both *-DIK/-AcAK* and *-mA* clauses (argument as well as adjunct) is explained next.

### 4.5.2 Analysis of Argument *-DIK/-AcAK* clauses

To recapitulate, argument *-DIK/-AcAK* clauses have a genitive subject, nominal agreement marking on the verb, and receive case-marking:

- (142)    Umay-Ø    [ Ece-nin git-tiġ-in ]-i    san-iyor-Ø.  
          Umay-Nom [ Ece-Gen go-DIK-3SgPoss ]-Acc believe-Prog-3Sg  
          'Umay believes that Ece went away/left.'

<sup>51</sup>Similarly, Radford (2009) puts forth the *Case Condition*, according to which a pronoun or noun expression is assigned case by the closest case-assigning head which c-commands it. For example, in the following sentence the finite complementizer that c-commands, and therefore, assigns nominative case to the pronoun *she*:

- (i)    They may feel that *she* can't help him.

I propose the following steps to account for *-DIK/-AcAK* argument clauses:

- C has a strong, selectional feature that is satisfied by a [+n]/[-v] category only.
- The verb moves from V to T to C to check off the strong [+n]/[-v] feature of C.
- C, a probe, has a set of [-interpretable]  $\phi$ -features due to this V-T-C movement.
- The subject noun (*Ece*), the goal, has [+interpretable]  $\phi$ -features.
- Agree allows the unvalued features of the probe (C) to be valued by the goal (Subject in [SpecTP]).
- Given the [+n]/[-v] feature in C, the spellout of the  $\phi$ -features of the amalgam created by V-T-C movement is nominal, which results in the subject-verb agreement to be nominal instead of verbal.<sup>52</sup>
- The subject in [SpecTP] has an unvalued case feature which is valued by the probe (C).
- The subject ends up with nominal case, which in Turkish is genitive case through the probe C<sup>0</sup> via *Agree*.

The proposed tree for *-DIK/-AcAK* clauses is shown in figure 4.5.

#### 4.5.3 Analysis of Adjunct *-DIK/-AcAK* clauses

Recall that the adjunct *-DIK/-AcAK* clause differs from the argument *-DIK/-AcAK* clause in that the subject has nominative rather than genitive case. Also, the *-DIK/-AcAK* clause

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<sup>52</sup>This gives us the correct order of verb, tense and agreement features and is in line with Baker's (1985) *Mirror Principle*.

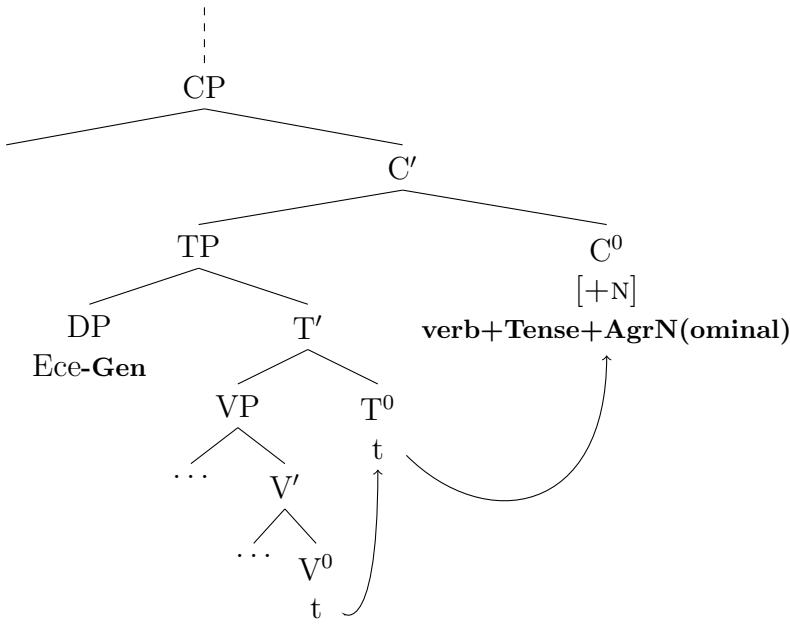


Figure 4.5: Argument -DIK/-AcAK Clauses

is introduced by a C element, such as *için* ‘because’, *zaman* ‘when’, etc.<sup>53</sup>

#### *Argument -DIK/-AcAK Clause*

- (143) [ Tolga-nın kaybet-tığ-in ]-i bil-iyor-uz.  
       [ Tolga-Nom lose-DIK-3SgPoss ]-Acc know-Prog-1Pl  
       ‘We know that Tolga lost.’

#### *Adjunct -DIK/-AcAK Clause*

- (144) [[ Tolga-Ø kaybet-tığ-i ] **için**] hepimiz üz-ül-dü-k.  
       [[ Tolga-Nom lose-DIK-3SgPoss ] because] we.all upset-Pass-Past-1Pl  
       ‘Because Tolga lost, we all got upset.’

---

<sup>53</sup>See Aygen (2007) for arguments that *zaman* ‘when’ and similar elements in sentences like (145) are complementizers.

- (145) [[ Tolga-Ø kaybet-ti̥g-i ] zaman ] hepimiz üz-ül-dü-k.  
       [[ Tolga-Nom lost-DIK-3SgPoss ] when ] we.all   upset-Pass-Past-1Pl  
       'When Tolga lost, we all got upset.'

We see from the examples above that the genitive case on the subject is in complementary distribution with the complementizers *için* 'because' and *zaman* 'when'. Whenever a complementizer appears in *-DIK/-AcAK* clauses, genitive case on the subject is not available. This case of complementary distribution is similar to the situation that involves complementizers in German. As well-known, in root contexts in German, the (finite) verb appears in second position (V2). It is standardly assumed that in a sentence such as (146), the verb *hat* 'have' underwent head-movement to C and that the subject *Joachim* occupies the specifier of CP. In example (147), we see that the presence of a complementizer (*weil* 'because' in this case) blocks V2, i.e., *weil* 'because' blocks the movement of the finite verb *hat* 'have' to C, and the finite verb must remain in final position (148). Thus, V2 with complementizers is impossible in German.

- (146) Joachim **hat** sein Buch verloren.  
       Joachim has his book lost

- (147) \*... **weil**    Joachim **hat** sein Buch verloren.  
       ... because Joachim has his book lost

- (148) ... **weil**    Joachim sein Buch verloren **hat**.  
       ... because Joachim his book lost      has

Just like the presence of *weil* 'because' prevents the movement of the finite verb to C (and thus blocks the occurrence of V2/ embedded root clauses) in German, the presence of *için* 'because' or *zaman* 'when', which occupy the C position, rules out verb movement to C in Turkish. In short, in adjunct *-DIK/-AcAK* clauses, where a complementizer is present

in C, verb movement to C is blocked.<sup>54</sup>

To account for *-DIK/-AcAK* adjunct clause, I propose the following:

- Adverbials such as *için* ‘because’, *zaman* ‘when’ are in C<sup>0</sup> (following Lasnik and Saito. (1991) and Aygen (2002)).
- C<sup>0</sup> has a selectional feature [-v]/[+n], which cannot be checked off by the adverbial/complementizer occupying the C<sup>0</sup> position as the adverbial/complementizer is not nominal.
- Movement of V+T to C<sup>0</sup> is blocked due to the presence of the adverbial/ complementizer in C<sup>0</sup>.
- The strong, selectional feature in C percolates down to T. T has strong, selectional feature that is satisfied by a [+n]/[-v] category only.
- T, a probe, has [-interpretable features], peruses its complement for a goal.
- The goal is the subject in [Spec,VP], and *Agree* applies to T and the subject, valuing the [-interpretable] features. Due to the [+n]/[-v] feature that percolated down to T

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<sup>54</sup>Further note that, just like in German, the presence of a complementizer in Turkish rules out embedded root clauses:

- (i) \*[[ Tolga-Ø Londra-ya git-ti-Ø ] **için** ] hempimiz üzüldük.  
[[ Tolga-Nom London-Dat go-Past-3Sg ] because ] all got.upset.  
Intended: ‘Because Tolga went to London, we all got upset.’

Complementizers such as *için* ‘because’, *zaman* ‘when’, etc. can only occur with nominalized clauses where the subject has nominative case:

- (ii) [[ Tolga-Ø Londra-ya git-tiğ-i ] **için** ] hempimiz üzüldük.  
[[ Tolga-Nom London-Dat go-Past-3Sg ] because ] all got.upset.  
Intended: ‘Because Tolga went to London, we all got upset.’

from C, the spell-out results in nominal agreement.

- The subject has an unvalued case feature which cannot be valued by the probe T, which has a [+n]/[-v] feature. Instead, the subject receives default case upon *Agree* with T, which is known to be nominative in Turkish. I propose that genitive case, at least in Turkish, cannot be assigned below the VP for independent reasons.<sup>55</sup>
- The subject moves to [Spec,TP] due to the EPP.

The tree of such adjunct *-DIK/-AcAK* clauses is shown in figure 4.6.

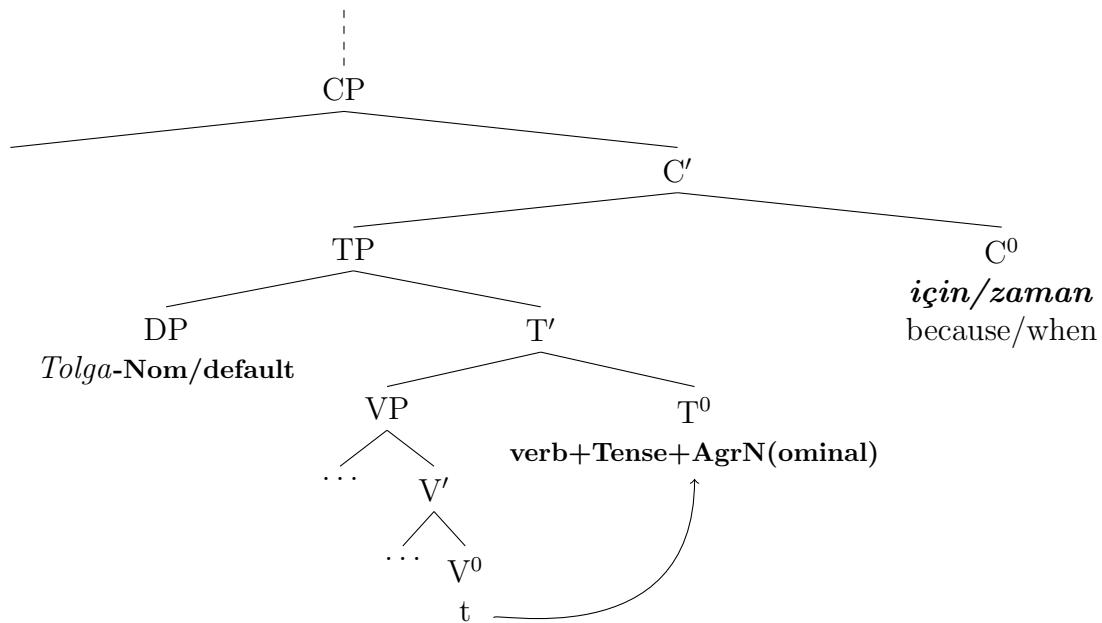


Figure 4.6: Adjunct *-DIK/-AcAK* Clauses

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<sup>55</sup>An alternative proposal would be to say that the subject's unvalued case feature is valued by T, but since genitive case is never assigned below the VP, the case that emerges on the subject is nominative.

## A Note on Kural (1992)

Recall that Kural (1992) claims that the *-K* in both *-DIK* and *-AcAK* is a complementizer. However, if *-K* is really a complementizer and in C<sup>0</sup>, it should not co-occur with C<sup>0</sup> elements such as *için* ‘because’, *zaman* ‘when’. This prediction, however, is not borne out as the examples in (144) and (145) show.

Further note that the infinitival suffix *-mAK* also has the final *-K*.

- (149) Sonay-Ø [ PRO Londra-ya git-**mek** ] iste-di-Ø.  
Sonay-Nom [ PRO London-Dat go-mAK ] want-Past-3Sg.  
'Sonya wanted to go to London.'

Given Kural's (1992) assumptions, the *-K* in the infinitival should also be in C<sup>0</sup>. If the *-K* in infinitival clauses is really a complementizer and the infinitival clause is a full CP, it would follow that *-mA* nominalized subjunctive clauses showcasing agreement marking are CPs as well, in which case we would expect to see a *-K* in *-mA* nominalized clauses as well. However, *-mA* nominalized clauses cannot co-occur with *-K*:

- (150) Sonay-Ø [ Orçun-nun Londra-ya git-me(\*k)-sin ]-i iste-di-Ø.  
Sonay-Nom [ Orçun-Gen London-Dat go-mAK-3SgPoss ]-Acc want-Past-3Sg.  
'Sonay wanted (for) Orçun to go to London.'

We conclude that the *-K* appearing in *-DIK* and *-AcAK* is not a C element.<sup>56</sup>

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<sup>56</sup>Though, it might be the case that the *-K* in *-DIK* and *-AcAK* and *-mAK* was at some point an identifiable suffix.

#### 4.5.4 Analysis of Argument *-mA* clauses

Recall that argument *-mA* clauses have a genitive marked subject, nominal agreement on the verb and receive case-marking.

- (151) Tuna-Ø [ Ece-**nin** git-**me-sin** ]-i iste-di-Ø.  
Tuna-Nom [ Ece-Gen go-mA-3SgPoss ]-Acc want-Past-3Sg  
'Tuna wanted for Ece to leave.'

To account for such clauses, I argue for the following:

- C has a strong, selectional feature that is satisfied by a [+n]/[-v] category only.
- C is lexically empty.
- The verb moves from V to T to C
- C, which has [-interpretable]  $\phi$ -features due to V-T-C movement, is a probe.
- The subject noun (*Ece*), which has [+interpretable]  $\phi$ -features, is the goal,
- Agree allows the unvalued features of the probe, C, to be valued by the goal, Subject in [SpecTP].
- Given the [+n]/[-v] feature in C, the spell-out of the phi-features of the amalgam created by V-T-C movement is nominal.
- The subject has an unvalued case feature which is valued by the probe, C.
- The subject ends up with genitive case via this *Agree* relation.

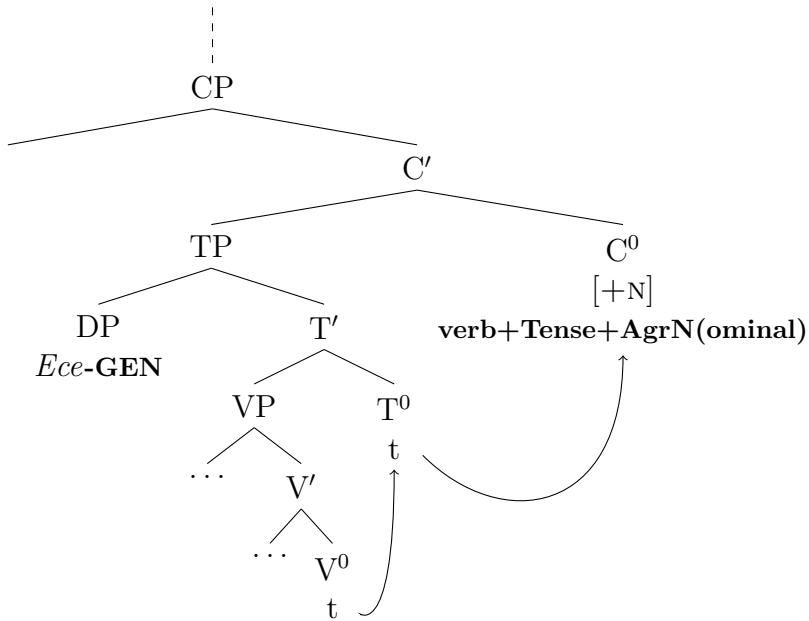


Figure 4.7: Argument *-mA* Clauses

### A Note on Subjunctive Obviation and the Phasehood of *-DIK/-AcAK* and *-mA* Clauses

Recall that subjunctive clauses, such as *-mA* clauses, are subject to obviation. According to Picallo (1985), the binding domain of *pro* in (152) in the embedded subjunctive clause is the whole sentence, and thus obviation is expected: *pro* is coindexed by a c-commanding NP in its Governing Category and thus a violation of Principle B occurs.

- (152) [ En Jordi ]1 espera que pro\*1/2 vingui.  
       [ The Jordi ]1 hopes that pro\*1/2 comes(Subj.)  
       ‘Jordi1 hopes that he\*1/2 /she will come.’

The reason for the extension of the binding domain is the “anaphoric” subjunctive mood—it fails to denote an independent time frame but is assigned a value in relation to the time

frame of its matrix clause. Indicative mood, on the other hand, does have autonomous time specification and hence does not show disjoint reference effects.

She further suggests that forms that lack an autonomous tense specification must enter a binding relation with forms that have an autonomous tense specification. This binding relation is called a *Tense-chain*.

- *T-governor*: A T-governor of  $\alpha$  is the maximal Tense-chain containing  $\alpha$  and the governor of  $\alpha$ .
- *Binding Domain*:  $\beta$  is a binding for  $\alpha$  iff  $\beta$  is the minimal subchain of the T-governor of the  $\alpha$  containing a subject accessible to  $\alpha$ , if there is one. If there is no accessible subject, the T-governor is the binding domain.

This is illustrated in figure 4.8.

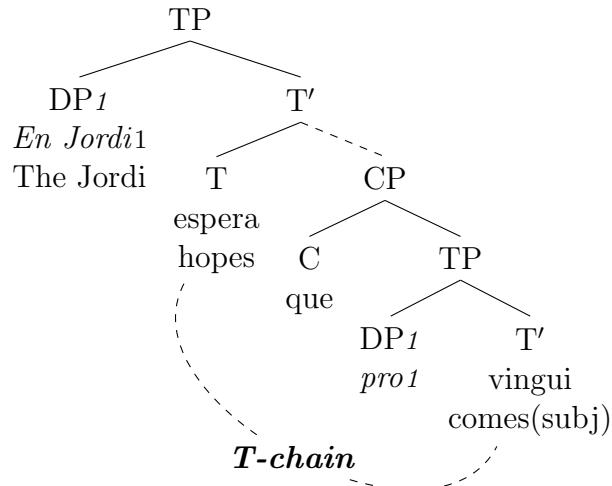


Figure 4.8: Extension of the binding domain of *pro* in “anaphoric” subjunctive clauses (Picallo, 1985)

To account for these facts (extended binding domain and “anaphoric’ nature of subjunctive mood, as well as not having an independent Tense domain), I argue that the *-mA* clause, although a CP and exhibiting  $\phi$ -features, is not a phase. The *-DIK/-AcAK* clause, however, is a phase as it has an independent tense domain and does not exhibit subject obviation effects.

#### 4.5.5 Analysis of Adjunct *-mA* Clauses

Recall that the adjunct *-mA* clause has a subject in the genitive case, as seen in (153), unlike an adjunct *-DIK/-AcAK* clause, whose subject appears with the nominative, as was shown in (144) and (145):

- (153) Deniz [[ Ece-**nin** okul-a git-**me-si** ] **için**] para biriktir-di-∅.  
 Deniz [[ Ece-Gen school-Dat go-mA-3SgPoss ] for ] money save-Past-3Sg  
 ‘Deniz saved money in order/ for Ece to go to school.’

What *-DIK/-AcAK* clauses and *-mA* clauses seem to have in common is the fact that they both use the adverbial *için*. We already saw that in the cases of *-DIK/-AcAK* clauses, *için* has the meaning of ‘because’. However, *için* does not have the same meaning when used with *-mA* nominalized clauses. When used with *-mA* clauses, *için* means ‘for, so that, with the purpose of’:<sup>57</sup>

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<sup>57</sup> As was demonstrated in section 4.3.5, reason clauses in Turkish use the *-DIK/-AcAK* nominalizer and purpose clauses use the *-mA* nominalizer. The fact that the indicative mood is used crosslinguistically for reason clauses and that subjunctive mood is used in purpose clauses was one indication that the distinction between *-DIK/-AcAK* and *-mA* is really one of mood.

- (154) Ayça-Ø git-ti̥g-i içi̥n  
 Ayça-Nom go-DIK-3SgPoss because  
 ‘because Ayça went’

- (155) Ayça-nı̥n git-me-si içi̥n  
 Ayça-Gen go-mA-3SgPoss so.that  
 ‘so that Ayça goes’

I argue that *için* used with *-mA* clauses with the meaning of ‘for, so that’ is a postposition, and thus, a P element, unlike the *için* used with *-DIK/-AcAK* clauses, which is a C element. In (156), we see that *için* can be used together with a noun, i.e., a proper noun to be exact, but in a noun/proper noun and *için* combination we see that *için* cannot have the meaning ‘because’, but necessarily means ‘for’.

- (156) Ayça-Ø içi̥n  
 Ayça-Nom içi̥n  
 = \*Because Ayça  
 = For Ayça (The only interpretation possible)

Similarly, in (157) we see that *için* can be used with pronouns. When *için* is used with pronouns, the pronoun necessarily receives genitive case. Without the genitive case, the pronoun and *için* combination is ungrammatical as shown in (158):<sup>58</sup>

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<sup>58</sup>Note that primary postpositions in Turkish, such as *için*, govern nouns in the nominative case (i), but govern personal pronouns and demonstratives in the genitive (ii), except those ending in the plural +lAr (iii) (see Lewis (2000) among others):

(i) *Ali-Ø içi̥n* ‘for Ali’, *okul-Ø içi̥n* ‘for school’, *tatil-Ø içi̥n* ‘for vacation’

(ii) *ben-im içi̥n* ‘for me’, *o-nun içi̥n* ‘for him/ her/ it/ that’, *su-nun içi̥n* ‘for that’, *bu-nun içi̥n* ‘for this’,

- (157) Sen-in  için  
 You-Gen for  
 = \*Because of you  
 = ‘For you’

- (158) \*Sen-Ø  için  
 You-Nom for  
 Intended: ‘For you’

To account for adjunct *-mA* clauses such as (153), I argue for the following:

- The postposition *için* ‘for, so that’ selects for a *-mA* CP clause, which has a [+n]/[-v] feature.
- C has a selectional feature that is satisfied by a [+n]/[-v] category only.
- C is lexically empty.
- The verb moves from V to T to C, which has a [+n]/[-v] feature.
- C, which has [-interpretable]  $\phi$ -features due to this V-T-C movement, is a probe.
- The subject noun (*Ece*), which has [+interpretable]  $\phi$ -features, is the goal,
- Agree allows the unvalued features of the probe, C, to be valued by the goal, Subject in [SpecTP].
- Given the [+n]/[-v] feature in C, the spell-out of the phi-features of the amalgam created by V-T-C movement is nominal.
- The subject has an unvalued case feature which is valued by the probe, C.
- The subject ends up with genitive case via this *Agree* relation.

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(iii) *o-nlar-Ø içim* ‘for them/ those’, *bu-nlar-Ø içim* ‘for these’,

This prepositional “status” of the adjunct *için* is not unconventional. Müller (1995) argues that adjunct clauses in German are PPs, with an empty P embedding a finite clause (the finite complement clause of the empty P node is an NP-shell):

- (159) [ <sub>PP</sub> P [ <sub>NP</sub> N [ <sub>CP</sub> [ C Spec CP [ <sub>IP</sub>

Müller (1995) notes that there are some preposition-like heads of adjunct, such as *nach-dem* ‘after-this’, *während-dessen* ‘while-this’, *seit-dem* ‘since-this’, where a nominal element is still present.<sup>59</sup> While I do not propose a nominal layer between the PP and the CP layers in *-mA* adjunct clauses, I do argue that P must select for a [-v]/[+n] complement. This is why the CP that P selects has nominal features.

The proposed tree for *-mA* adjunct clauses is given in 4.9 :

## 4.6 Conclusion

We have seen that although nominal in its appearance, Turkish nominalized embedded clauses do not have a nominal structure, much like English *that* clauses. The nominal behavior of such embedded clauses is attributed to a nominal feature in C, which was shown to be the crucial site for case and  $\phi$ -feature valuation, and hence, responsible for the spell-out of nominal case (i.e., genitive) on the subject and nominal agreement on the verb. It was further shown that *-DIK/-AcAK* clauses are indicatives, while *-mA* clauses are subjunctives. Although both clauses are CPs, only the *-DIK/-AcAK* clause is a phase. The *-mA* clause

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<sup>59</sup>Müller (1995), citing Lenerz (1984), mentions that this was regularly the case with adjunct clauses in earlier stages of German.

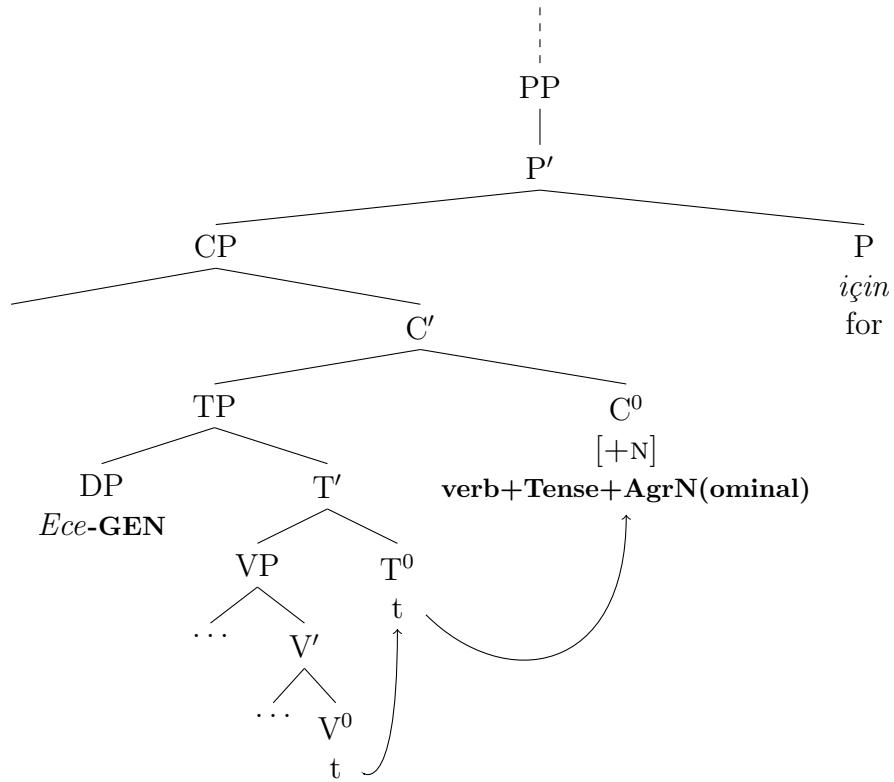


Figure 4.9: Adjunct *-mA* Clauses

has no independent tense domain and relies on the matrix clause for tense specification. Furthermore, subjunctive obviation effects show that the binding domain of *pro* extends to the whole sentence. Thus, *-mA* clauses are argued not to be phases.

## CHAPTER 5

## DISCUSSION

### 5.1 Introduction

The aim of this chapter is to further discuss some of issues that came up in the previous chapters and offer some clarifications and solutions. Topics and phenomena that need to be addressed in future work are also addressed in this chapter. The key issues that are being discussed here are as follows:

- Definitions of verbal and nominal clauses
- Accusative case in Turkish
- Stowell's (1981) *Case Resistance Principle* and the issue of Extraposition
- Finiteness in Turkish

### 5.2 Defining Verbal and Nominal Clauses

In the preceding chapters, I have used the labels “verbal CP” and “nominal CP” to refer to various embedded clause types, but have not yet provided an explanation as to what those labels specifically mean. Before offering a description, I list the various clause types I labelled as such below:

**Verbal CPs:** *Embedded Root Clauses (ERCs)—both ERCs that occur in immediate preverbal position as well as ERCs that are introduced by paratactic ki.*

*Embedded Root Clause*

- (1) Aykut-Ø [ Olcay-Ø istifa et-ti-Ø ] san-iyor-Ø.  
Aykut-Nom [ Olcay-Nom resign do-Past-3Sg ] believe-Prog-3Sg  
'Aykut believes Olcay resigned.'

*Paratactic Embedded Root Clause introduced by ki*

- (2) Aykut-Ø san-iyor-Ø ki [ Olcay-Ø istifa et-ti-Ø ].  
Aykut-Nom believe-Prog-3Sg ki [ Olcay-Nom resign do-Past-3Sg ]  
'Aykut believes Olcay resigned.'

**Nominal CPs:** *Nominalized clauses—both indicative and subjunctive CPs.*

*Nominalized Indicative, with Factive Matrix Predicate*

- (3) Aykut-Ø [ Olcay-in istifa et-tiğ-in ]-i öğren-di-Ø.  
Aykut-Nom [ Olcay-Gen resign do-DIK-3Sg ]-Acc find.out-Past-3Sg  
'Aykut found out that Olcay resigned.'

*Nominalized Indicative, with Non-factive Matrix Predicate*

- (4) Aykut-Ø [ Olcay-in istifa et-tiğ-in ]-i san-iyor-Ø .  
Aykut-Nom [ Olcay-Gen resign do-DIK-3Sg ]-Acc believe-Prog-3Sg  
'Aykut believes that Olcay resigned.'

*Nominalized Subjunctive, with Factive Matrix Predicate*

- (5) Aykut-Ø [ Olcay-in istifa et-me-sin ]-e kız-dı-Ø.  
Aykut-Nom [ Olcay-Gen resign do-mA-3Sg ]-Dat believe-Prog-3Sg  
'Aykut got angry that Olcay resigned.'

*Nominalized Subjunctive, with Non-factive, Volutional Matrix Predicate*

- (6) Aykut-Ø [ Olcay-in istifa et-me-sin ]-i isti-yor-Ø.  
Aykut-Nom [ Olcay-Gen resign do-mA-3Sg ]-Acc want-Prog-3Sg  
'Aykut wants Olcay to resign.'

So, what is it that distinguishes verbal CPs from nominal ones, except for the apparent nominal characters (genitive case, nominal agreement, etc.)? That is, what causes nominal or verbal behavior of CPs in the first place? How are object clauses that allow ERCs (or root/main clause phenomena) and those who ban it best characterized?

This question is not new, and certainly not just applicable to Turkish. For decades now there have been various attempts to describe object clauses which allow root or main clause phenomena (henceforth MCP) and object clauses which ban MCP. Most popular characterizations involve labels such as factive/ non-factive, given/novel, asserted/non-asserted. For example, Hooper and Thompson (1973) propose a semantic characterization of the distribution of root phenomena, according to which such phenomena occur only in clauses that are asserted. Similarly, Bayer (2001) and Krifka (2001) associate topicalization in German with illocutionary force. In a more pragmatic account, Green (1976, p. 386) claims that embedded root phenomena are licensed "just in case the proposition they affect, and therefore emphasize, is one which the speaker supports," though she admits this is only one constraint out of many affecting the acceptability of these root/ main clause phenomena.

While it has generally been acknowledged that such semantic-pragmatic conditions are relevant, some have argued that that these two classes of object clauses (i.e. those allowing versus those banning MCP) differ in terms of their syntactic structures as well. For example, several approaches to factive complements argue for an extra syntactic layer for them. Perhaps the most influential proposal belongs to Kiparsky and Kiparsky (1970), who argue that

factive complements have a DP-layer with an empty D head above the factive CP (see also Kalluli (2006) for a similar Kiparskian view). Others, argue for an operator, motivated by a ‘familiarity’ or ‘definiteness’ feature, in the specifier position of factive CPs (see Melvold (1991), Hegarty (1992), among others). Some accounts have argued that it is non-factives that have a syntactic projection that factives lack (see de Cuba (2007) and a series of his works).

In previous chapters, we had already established that various types of embedded clauses do not strictly correlate with factivity. For example, although embedded root clauses can only be selected by non-factive verbs (as seen in (7)), non-factive verbs, much like factives, may also take nominalized clauses (see examples (3) through (6)).

*Embedded Root Clause with True Factive Matrix Predicate unut- ‘forget’*

- (7) \*Aykut-Ø [ Olcay-Ø istifa et-ti-Ø ] unut-tu-Ø.  
           Aykut-Nom [ Olcay-Nom resign do-Past-3Sg ] forget-Past-3Sg  
           ‘Aykut forgot that Olcay resigned.’

I have argued that embedded root clauses in Turkish, including those that are introduced by the element *ki*, have their own illocutionary force, namely that of *assertion*. One problem with this is the fact that verbs that are traditionally labelled as *assertive* may also take nominalized clauses:

*Nominalized Indicative, with Assertive (Non-factive) Matrix Predicate*

- (8) Aykut-Ø [ Olcay-in istifa et-tig-in ]-i san-iyor-Ø .  
           Aykut-Nom [ Olcay-Gen resign do-DIK-3Sg ]-Acc believe-Prog-3Sg  
           ‘Aykut believes that Olcay resigned.’

### *Nominalized Indicative, with Assertive (Factive) Matrix Predicate*

- (9) Aykut-Ø [ Olcay-in istifa et-tiğ-in ]-i gör-dü-Ø.  
Aykut-Nom [ Olcay-Gen resign do-DIK-3Sg ]-Acc see-Past-3Sg  
'Aykut saw that Olcay resigned.'

In short, whereas ERCs are only compatible with assertions, nominalizations are compatible with assertions and also factives. Thus, what is needed is a divide that gives non-factives, assertives two complementation options (ERCs and nominalizations) and restrict factives, non-assertives to only nominalizations.

Following Haegeman and Ürögdi (2010) and de Cuba and Ürögdi (2010), I argue that complement clauses are differentiated by the property of *referentiality*: non-factive, assertive predicates have two complementation options (for Turkish: ERCs, which are non-referential, and nominalizations, which are referential), while factives are restricted to one complementation option (for Turkish: only nominalizations, which are referential). The following are the relevant definitions:<sup>1</sup>

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<sup>1</sup>Note also the following statement from Haegeman and Ürögdi (2010, p. 144):

"Therefore, we take referentiality to be a weaker condition than and at the same time a precondition on givenness, D-linking and presupposition. This means that referential propositions— just like referring expressions in general— may be used as given or D-linked, and their truth may be presupposed if they are subordinated to a factive verb. Factivity is a lexico-semantic property of verbs, and enforces truth-conditional presupposition on the verb's complement. Referentiality, as we use the term, is— unlike givenness or D-linking— not contextually defined. In the next section, we give concrete form to the intuition that referentiality in both CPs and DPs is syntactically derived and corresponds to syntactic and semantic effects in an analogous fashion on both types of phrases."

**Referential:** XP is referential if XP has the potential for referring.

**Referential CP (RCP):** a referential entity that denotes a proposition without illocutionary force (a sentence radical in the sense of Krifka (1999); a semantic object encoding a proposition/question which the complex sentence (the embedding context) positions in the dynamics of conversation. As such, an RCP in itself does not constitute a speech act and cannot be used as an utterance. RCPs can be embedded under both factives and non-factives.

**Non-referential CP (NCP):** a non-referential semantic object denoting a speech act with illocutionary force, i.e., one which involves a conversational move. An NCP can thus be a matrix sentence, or an embedded clause subject to various restrictions. Factive verbs cannot embed speech acts due to conflicting semantic requirements.

Haegeman and Ürögdi (2010)

Regarding the non-referential CP (NCP), I argue that the relevant speech act with illocutionary force that is at the heart of ERCs in Turkish is *assertion*. As such, *assertion* is considered here to be a (key) notion within non-referentiality.

As pointed out by Haegeman and Ürögdi (2010), using the term referentiality (rather than concepts that are specific to sentential embedding such as assertion and factivity) suggests a link with the syntax of nominals, that is, a link between referential CPs and referential DPs. This of course, is a welcome result, as previous sections have illustrated a strong parallel behavior of DPs and CPs in Turkish. Table 5.2 below provides a summary of the various DP and CP types, their distinguishing property, as well as their syntactic position within the sentence.

Phrase Type	Semantic/ Pragmatic Property	Position within Sentence
DP, Bare	indefinite, existential (non-referential)	Fixed pre-verbal position (below the VP; mapped into the nuclear scope)
CP, Bare/ ERC	asserted (non-referential)	Fixed pre-verbal position (below the VP; mapped into the nuclear scope)
CP, Bare/ ERC introduced by <i>ki</i>	asserted (non-referential)	Fixed post-verbal position, with <i>ki</i> as a connector of category C (the empty pronoun it is associated with and which undergoes feature checking) is below the VP; mapped into the nuclear scope
DP, Acc-marked	presuppositional (referential)	Default position: Pre-verbal (above VP; mapped into the restrictive clause); may occur in topic and background positions, or may scramble to any other position within the sentence.
CP, Acc-marked/ Nominalized	referential	Default position: Pre-verbal (above VP; mapped into the restrictive clause); may occur in topic and background positions, may be subjects, and may scramble to any other position within the sentence.

Table 5.1: Syntactic Positions of DPs and CPs in Turkish

In the spirit of Diesing's (1992) Mapping Hypothesis, referential arguments (both DPs and CPs) are externally merged above the VP, whereas non-referential arguments (both DPs and CPs) are below the VP, in the nuclear scope.

Thus, we see that there is a tight relationship between the position and the interpretation of CPs in Turkish. Such a tight relationship between position and interpretation is, of course, not uncommon. For example, for Dutch Barbiers (2000) argues that, linearly speaking, there is almost a one-to-one correspondence of position and interpretation: A CP is factive in Y in the order of SYOVX, quotative in O, and either factive or propositional in X.<sup>2</sup>

Due to the tight relationship between the position and interpretation of CPs, Barbiers (2000) was against the idea of adopting an analysis that lexically stipulates whether a verb can take a propositional complement, a factive complement or both. In his alternative analysis, it is not the matrix verb but the structural position of the embedded CP that determines whether a CP is factive or propositional.

We have seen some examples from Turkish that back up the line of reasoning that the structural position of a CP does determine the meaning of the matrix verb. However, this is not always the case as some verbs are incompatible with certain types of CPs, thus, indicating that some (or certain) verbs do need “lexical stipulation.”

First, I give some examples that show that the structural position of a CP determines

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<sup>2</sup>More specifically, factive CPs are adjuncts to an extended projection of V, propositional CPs are right-hand sisters of V, and quotative CPs are in the position of DP complements, which he claims to involve SpecAgrOP. Although Barbiers (2000) argues that quotative CPs are in SpecAgrOP (the canonical position for DPs), I have argued that in Turkish, the quotatives are below the VP (and thus below SpecAgrO or any other functional projection assumed to house (referential) object DPs). He further argues that the linear position X is syntactically ambiguous between a complement and an adjunct: factive CPs are adjuncts, whereas propositional CPs are complements.

the meaning of the matrix verb:

*The verb bil- ‘know’ with ERC is Non-factive*

- (10)    Özgür-Ø [ Özge-Ø Yunanistan-a taşın-di-Ø ] bil-iyor-Ø .  
            Özgür-Nom [ Özge-Nom Greece-Dat move-Past-3Sg ] know-Prog-3Sg  
‘Özgür believes that Özge moved to Greece.’

*The verb bil- ‘know’ with NCC is Factive*

- (11)    Özgür-Ø [ Özge-nin Yunanistan-a taşın-dığ-in ]-1 bil-iyor-Ø .  
            Özgür-Nom [ Özge-nin Greece-Dat move-DIK-3Sg ]-Acc know-Prog-3Sg  
‘Özgür knows that Özge moved to Greece.’

*Predicate Ne yazık with ki ERC is assertive, non-referential*

- (12)    Ne yazık ki [ Özge-Ø Hanım kaybol-du-Ø ].  
            What unfortunate ki [ Özge-Nom Ms. get.lost-Past-3Sg ]  
‘Unfortunately/How unfortunate, Ms. Özge got lost.’

*Predicate Ne yazık with NCC is Factive, referential*

- (13)    [ Özge Hanım-in kaybol-ma-sı ]-Ø ne yazık.  
            [ Özge Ms.-Gen get.lost-mA-3Sg ]-Nom what unfortunate  
‘It’s unfortunate that Ms. Özge got lost.’

Next, we see that not all verbs are compatible with just any type of CP. The verb *unut-* ‘forget’, a true factive, is incompatible with an ERC:

*Factive verb unut- with NCC; Factive meaning*

- (14) [ Özgür-ün Türkiye-de ol-duğ-un ]-u unut-tu-k.  
[ Özgür-Gen Turkey-Loc be-DIK-3Sg ]-Acc forget-Past-1Pl  
‘We forgot that Özgür is in Turkey.’

*Factive verb unut- with ERC; incompatible*

- (15) \*Biz [ Özgür-Ø Türkiye-de-Ø-Ø ] unut-tu-k.  
we [ Özgür-Nom Turkey-Loc-Cop-3Sg ] forget-Past-1Pl  
Intended: ‘We forgot Özgür is in Turkey.’

Thus, I conclude by saying that although the syntactic position of a CP (which in turn also determines the shape of the CP in Turkish—nominal vs. verbal) indicates whether or not it is referential, the matrix verb it is selected by needs to be compatible with it in most cases.

Regarding the syntactic structure of nominal/referential CPs—although I have already addressed the syntactic structure for nominal/ referential CPs in Chapter 4, a summary and a few remarks on specifically factive CPs are in order.

I have shown that factive nominalized CPs, regardless of whether they are indicative or subjunctive, behave differently with respect to certain phenomena, such as NPI-licensing and wh-adjunct extraction. Some relevant data are repeated here below:

- (16) *NPI-Licensing, Factive Verbs with -DIK/-AcAK and -mA*

- a. \*[ **Kimse-nin** gel-diğ-in ]-i unut-ma-di-lar  
[ Nobody-Gen come-DIK-3SgPoss ]-Acc forget-Neg-Past-3Pl  
Intended: ‘They did not forget that anybody came.’

- b. \*[ Kimse-nin git-me-sin ]-e kız-ma-di-m  
 [ Nobody-Gen go-mA-3SgPoss ]-Acc be.angry-Neg-Past-1Sg  
 Intended: 'I did not get angry that anybody went.'

(17) *NPI-Licensing, Non-factive Verbs with -DIK/-AcAK and -mA*

- a. [ Kimse-nin gel-eceğ-in ]-i san-mı-yor-um  
 [ Nobogy-Gen come-AcAK-3SgPoss ]-Acc believe-Neg-Prog-1Sg  
 'I don't believe that anybody will come.'
- b. [ Kimse-nin gel-me-sin ]-i iste-mı-yor-um  
 [ Nobody-Gen come-mA-3SgPoss ]-Acc want-Neg-Prog-1Sg  
 'I don't want for anybody to come.'

(18) *Non-factive and Factive -DIK/-AcAK clause with how*

- a. [ Bilge-nin para-yı nasıl kazan-dıg-in ]-i san-iyor-sun?  
 [ Bilge-Gen money-Acc how win-DIK-3SgPoss ]-Acc believe-Prog-2Sg  
 'How<sub>i</sub> do you believe Bilge earned/won the money *t<sub>i</sub>*?'
- b. \*[ Bilge-in para-yı nasıl kazan-dıg-in ]-i öğren-di-n??  
 [ Bilge-Gen money-Acc how win-DIK-3SgPoss ]-Acc findout/learn-2Sg  
 Intended: 'How<sub>i</sub> did you find out Bilge went to school *t<sub>i</sub>*?'

(19) *Non-factive and Factive -mA clause with how*

- a. [ Balık-1 nasıl pişir-me-sin ]-i isti-yor-sun?  
 [ fish-Acc how cook-mA-3SgPoss ]-Acc want-Past-2Sg  
 'How<sub>i</sub> do you want for her to cook the fish *t<sub>i</sub>*?'
- b. \*[ Balık-1 nasıl pişir-me-sin ]-e kız-di-n?  
 [ fish-Acc how cook-mA-3SgPoss ]-Acc be.angry-Past-2Sg  
 Intended: \*'How<sub>i</sub> did you get angry that she cooked the fish *t<sub>i</sub>*?'

Furthermore, in Chapter 4, it was argued that nominalized clauses in Turkish (identified as CPs) must not have a DP-layer above the CP as this would allow for scope readings

that are unavailable. This argument goes for both non-factive as well as factive nominalized clauses. Thus, I conclude that nominal/referential CPs do not have additional syntactic structure.<sup>3</sup>

Therefore, along the lines of Melvold (1991), Hegarty (1992), Watanabe (1992) and Haegeman and Ürögdi (2010), I assume that an operator is involved in referential CPs. However, I will leave it for further research to see what the exact nature of this operator is and how it is derived.

### 5.3 Accusative Case in Turkish

As was discussed in Chapter 3, presuppositionality (referentiality) of object NPs in Turkish is marked by the presence of the accusative case marker. Moreover, data regarding the position of such object NPs in the sentence, especially data regarding the relative position of accusative case to manner adverbs, indicated that such presuppositional object NPs are above the VP layer, in the restrictive clause (cf. Diesing (1992)). Bare object NPs (BONPs) in Turkish, i.e., object NPs without accusative marking, were shown to be restricted to the immediate pre-verbal position, below manner adverbs, indicating that their position is within the VP, in the nuclear scope. It was also argued that Diesing's (1992) Mapping Hypothesis extends to CPs as well: referential CPs are within the restrictive clause, which is not only indicated by the presence of the accusative case marker, but also by their ability to topicalize, background and occur as sentential subjects, properties not observed with ERCs, which were argued to be within the VP, in the nuclear scope.

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<sup>3</sup>According to Kalluli (2006, p.200): “[...] accounts that can derive the relevant semantic differences from syntactic structure are to be preferred on conceptual grounds.” This is not the view taken up here.

The question that arises at this point is what the nature of the accusative marker in Turkish is, and where and how accusative case marking is checked/assigned. Moreover, how can we account for no (overt) case-marking on object NPs (and by extension, CPs), given the Case Filter Hypothesis, which requires an (overtly realized) NP argument to be case marked, or be associated with a case position; or more recently, the Visibility Condition, according to which a DP's  $\theta$ -role is visible at LF only if it is Case-marked.

There are two scenarios that might explain the lack of accusative case-marking on object DPs (and CPs):<sup>4</sup>

1. The object NP/CP within the VP, the nuclear scope, cannot get case as case is checked/assigned outside the VP, and hence the object NP/CP gets the default case in Turkish, which is  $-\emptyset$ .
2. There are two accusative case markers in Turkish:
  - $-(n/y)I$  is the accusative marker reserved for referential NPs and CPs, is checked/assigned above the VP layer/ the restrictive clause
  - $-\emptyset$  is the accusative case marker used for non-presuppositional, non-referential NPs and CPs, is checked/assigned within the VP layer, in the nuclear scope.

Although the question as to which of these scenarios is the correct one is very important, I will leave it for further research to determine the nature of accusative case marking in Turkish. This discussion on the nature of accusative case marking is especially relevant for the next section, namely Stowell's (1981) *Case Resistance Principle*.

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<sup>4</sup>A third, but more radical scenario would be to claim that the accusative marker  $-(n/y)I$  is not a case marker at all, but simply a marker of referential/definite  $[+n]$ , akin to *the* or *that*. Although such an approach seems less likely to be true, it needs to be considered and explained away nevertheless, which, too, will be left for future research.

## 5.4 The Case Resistance Principle and Turkish

Stowell (1981) argues that the subject of a clause is assigned nominative Case only if Infl, the head of S, has lexical content. For Stowell (1981), this means that Infl must contain the feature [-/+ Past], which is interpreted as having lexical content. Thus, finite clauses, which for Stowell (1981) are [+Tense, +/-Past], can case-mark the subject position, but infinitivals, which are [+Tense] but lack the feature [+/-Past], cannot. No clause can undergo case-marking since all clauses contain the Case-assigning feature [+Tense] and Case is not assigned to a category with a Case-assigning feature (i.e., [-N] or [+Tense]). Phrases which cannot receive Case are evacuated from positions in which Case is assigned.<sup>5</sup>

*Stowell's (1981) Case Resistance Principle (CRP):*

Case may not be assigned to a category bearing a Case-assigning feature.

Data regarding Turkish may be problematic for the CRP. First, we have seen that ERCs necessarily occupy the immediate pre-verbal position in Turkish, known to be a case position. Second, nominalized clauses, which have been shown here not to be gerunds, and in the case of indicative nominalized clauses (clauses constructed with the nominalizer *-DIK/-AcAK*) to even have the [+/-Past] feature, are case-marked.

The first problem here, that ERCs reside in a case position, may not constitute a problem after all. As mentioned in section 5.3, ERCs necessarily occur below the VP layer, in the nuclear scope, where presumably (accusative) case is not assigned. Thus, ERCs are not in a case position, and are not expected, or better said, do not need to extrapose.

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<sup>5</sup> According to Stowell (1981), gerunds, but not infinitives and tensed clauses, lack the Comp position.

The second problem cannot be explained away that easily. Why do nominalized clauses shown to be [+/- Past]- and tense-bearing indicative CPs receive case marking? Why do such clauses not extrapose, like the German *dass*-clauses?

As mentioned in Chapter 4, Stowell's (1981) CRP has not been without problems.<sup>6</sup> But even if we assume that the CRP makes wrong predictions, we still don't have an explanation as to why Turkish nominalized clauses, argued to be CPs here, behave differently from another well-known head-final language, namely German, in which both ERCs and *dass*-clauses extrapose, i.e. appear to the right of the verbal complex (the *Nachfeld*).

Most analyses of German extraposition have assumed rightward movement of a phrase. Some analyzed this rightward adjunction to be base-generation, others saw extraposition to be derived by A'-movement, focusing mostly on possible attachment sites. Accounts of extraposition have also proposed various triggers for extraposition. Many previous analyses of CP extraposition in German have either seen Stowell's (1981) CRP, the idea that CPs, as opposed to DPs, cannot bear Case, as the driving force behind such rightward movement, or have drawn on Stowell's (1981) CRP (see for example, von Stechow and Sternefeld (1989), Büring and Hartmann (1997), among others).<sup>7,8</sup>

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<sup>6</sup>For example, Chung (1991) shows that CPs in Chamarro are Case-marked, Plann (1986) lists examples that show how prepositions take CP comps in Spanish, and Tsai (1995) argues that CPs in Chinese need Case in order to receive thematic roles. See also, Dubinsky and Davies (2006), who offer a new analysis for sentential subject in English that does not rely on the CRP.

<sup>7</sup>For example, Büring and Hartmann (1997), arguing against a Kayneian approach to German extraposition, propose the following generalization: Finite sentences may not be governed by V or I.

<sup>8</sup>Note that much criticism surrounds traditional extraposition analyses as well. A problem for an extraposition analysis is that it wrongly predicts that CPs are always islands for extraction (cf. Hoekstra (1983), Zwart (1993)). According to Barbiers (2000), another problem is that CP gets case even if extraposed: If CP-extraposition involves rightward movement, CP gets case via its trace. If CP is generated as an adjunct and must form a chain with an (empty) pronoun in the complement position of V to be interpreted as an

Various proposals have argued that the distribution of complements should be handled, as Riemsdijk (1988) puts it, “in a more unified and modular way.” For example, extraposition of CPs is invoked by Hoekstra (1984) through his *Unlike Category Condition* (UCC):<sup>9</sup>

***Hoekstra’s (1984) Unlike Category Condition (UCC):***

At s-structure, no element of the type  $[\alpha N, \beta V]^o$  may canonically govern a projection of  $[\alpha N, \beta V]$ .

Riemsdijk (1988) argues that the UCC is not tenable, and both too strong and too weak (i.e. it incorrectly excludes the P-PP cases, but fails to exclude a number of combinations that are considered to be impossible, such as adjectives governing an NP with a grammatical case).<sup>10</sup> Although still acknowledging that certain categories cannot occur in each other’s immediate proximity, he argues that the relevant contexts need to be characterized by syntactic features rather than categories, thus proposing the *Unlike Feature Condition*:

***Riemsdijk’s (1988) Unlike Feature Condition (UFC):***

$*\{ [+F_1]^o - [+F_1]^{max} \}$  where  $F_1 = N$  or  $V$

Other accounts attempt to explain extraposition assuming Kayne’s (1994) Linear Correspondence Axiom (LCA). Kayne’s (1994) LCA argues that linearity is determined by phrase structure, and that c-command relations are mapped onto linear precedence relations with a

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argument of  $V$ , it will get case via that chain as well.

<sup>9</sup>See Richard (1982) for a similar proposal.

<sup>10</sup>Bayer (1996) also mentions various issues.

universal SVO order. With this system that rules out any adjunction to the right, elements that were traditionally thought to have moved or base-adjoined to the right are elements that remain in situ. Obviously, the exclusion of right adjunction makes the traditional extraposition analysis impossible.<sup>11</sup> However, many have argued against a Kayneian analysis of extraposition.<sup>12</sup>

Bayer (1997), who argues that extraposed CP-arguments do not occupy A'-positions but object positions to the right of the verb, claims that extraposed CP arguments are derived as right hand arguments of the verb and are licensed by a deletion process that applies to the left hand direct object position of the verb. Extraposition of finite clauses in German may then derive from principles that give rise to the following descriptive generalization (Bayer, 1996, p. 193):

- (20) Where CP is selected by V, its head tends to be linearly adjacent to V.

In a more recent account of CP “extraposition”, Biberauer and Sheehan (2012) argue for the Final-over-Final Constraint (FOFC), a constraint which rules out head-initial phrases dominated by head-final phrases which are part of the same extended projection. FOFC is taken as a crucial piece of evidence for the fact that the order of heads and complements

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<sup>11</sup>See also Zwart (1993) for an antisymmetric minimalist account, according to which English and Dutch DP and CP complements are generated as righthand sisters of V. The DP in both languages moves to a position to the left of V in order to get its case checked, whereas the CP stays in situ.

<sup>12</sup>Various problems are mentioned in Büring and Hartmann (1997), Bayer (1996, 1997), Haider (1997), Barbiers (1995), among others.

is manipulated by the LCA.<sup>13,14</sup> In particular, the FOFC tries to capture the fact that no structure can exist with a head final phrase dominating a head-initial one. One of these impossible structures is a head-final CP in a head-final VP: \*[VP [CP C TP] V].

### **The Final-over-Final Constraint (FOFC)**

If  $\alpha$  is a head-initial phrase and  $\beta$  is a phrase immediately dominating  $\alpha$ , then  $\beta$  must be head-initial. If  $\alpha$  is a head-final phrase, and  $\beta$  is a phrase immediately dominating  $\alpha$ , then  $\beta$  can be head-initial or head-final.

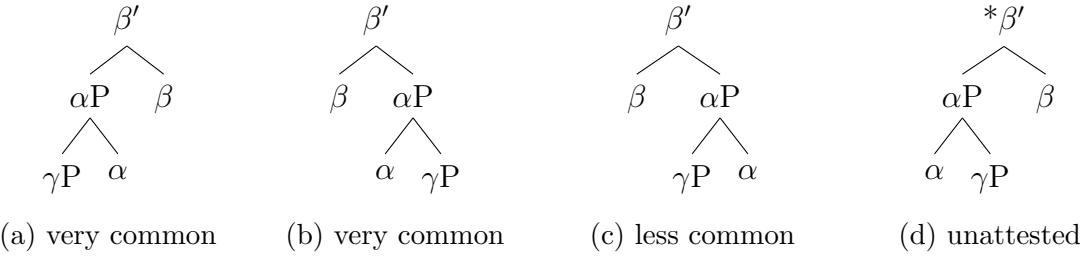


Figure 5.1: Harmonic and disharmonic combinations (Biberauer and Sheehan, 2012, p. 209)

Biberauer and Sheehan (2012) argue that the extraposition of CP complements in languages such as Dutch, German and Hindi is simply a strategy to comply with the FOFC. To be more specific, the unattested structure given in (d) is impossible because, as an unlinearizable structure, it is in violation of the LCA.<sup>15</sup>

<sup>13</sup>Following Kayne (1994), Biberauer and Sheehan (2012, 2013), Sheehan (2013) assume that the universal order is Spec-Head-Complement and assume a version of the LCA. They argue that the complement-head orders are derived when the relevant head X has a  $\wedge$  feature (also called an edge or EPP feature in the literature) which then triggers movement of the complement of X to the specifier of X.

<sup>14</sup>The FOFC was originally proposed by Biberauer et al. (2007, 2008, 2014) in an attempt to capture asymmetry and grammaticality of disharmonic word orders.

<sup>15</sup>The “extraposed” order [VP V [CP C TP]] involves a more complex structure in which the relation between V and CP is mediated by a little n which takes CP as its complement. The  $\wedge$  feature on V triggers

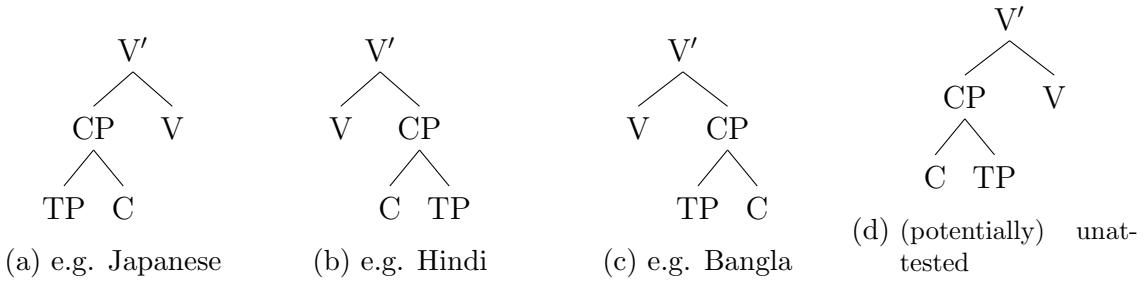


Figure 5.2: Harmonic and disharmonic combinations of V and CP (Biberauer and Sheehan, 2012, p. 229)

In an OV language, it follows that there is no motivation to obligatorily extrapose a head-final CP.

I assume with Biberauer and Sheehan (2012) that extraposition is a strategy to avoid \*[VP [CP C TP] V] and does not happen due to the CRP (or analyses that derive from the CRP), and Turkish, a [ VP [ CP TP C ]V ] language, does not need to extrapose for that reason. I do believe that V and C need to be strictly aligned, but not only when C is head-initial. That is, I agree with the first part of the FOFC, namely that “[i]f alpha is a head-initial phrase and beta is a phrase immediately dominating alpha, then beta must be head-initial.” However, the second part of the FOFC, that “[i]f alpha is a head-final phrase, and beta is a phrase immediately dominating alpha, then beta can be head-initial or head-final”, appears to be too strong in that it allows the combination [VP V [CP TP C ]]. This is also in line with Bayer’s (1996) descriptive generalization in (20). Biberauer and Sheehan (2012) mention that Hawkins (p.c, and 2013) points out that the combination [VP V [CP TP C ]] is virtually unattested, possibly surfacing in variable VO/OV languages or as the result of optional extraposition. Biberauer and Sheehan (2012) and Sheehan (2013), however, argue that FOFC independently rules out V-TP-C as a basic word order. As Sheehan (2013)

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nP movement to SpecV, after which a mechanism called “scattered deletion” applies as a last resort strategy in order to avoid a representation that does not comply with the LCA, which then causes CP to spell-out in its first-merge position: [VP [nP [CP C TP]] [V' V^ [nP n [CP C TP]]]].

states: “FOFC rules out the possibility of a head-final CP in a VO language, by transitivity. VO order rules out the possibility of a final T (\*[[V-O]-T]), and T-VP order in turn rules out the possibility of a final C (\*[[T-VP]-C]). If we assume that, all else being equal, CP and DP arguments will surface in the same position in a given language, it follows that wherever a language has a final complementizer, it will also be an OV language and so the clause in question will surface preverbally.”

I will leave it for future research to see what precise constraint(s) or condition(s) can correctly capture the typological generalizations put forth by Bayer (1996, p. 192):<sup>16,17</sup>

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<sup>16</sup>Bayer (1996) mentions that these generalizations comply with the findings of Kuno (1973), Grosu and Thompson (1977) and Dryer (1980).

<sup>17</sup>Barbiers (2000) also comes to the same conclusion. Regarding propositional complements, he states that his proposal makes the following typological predictions:

- i. When a CP complement is postverbal, it has a clause-initial complementizer.
- ii. When a CP complement is preverbal, it has a clause-final complementizer.

Barbiers (2000) also makes the prediction that a clause final complementizer in a preverbal CP cannot be a demonstrative, because in such a configuration, the embedded IP immediately c-commands C and C immediately c-commands the matrix V. Thus, the hierarchical order of pointer (the matrix verb) and the pointee (the embedded IP) is the reverse order with a postverbal CP, so the pointing should be in the opposite direction. For factive CPs, Barbiers (2000) states that the predictions are less clear: “A crucial ingredient of the interpretation is a CP outside the domain of existential closure, predicating of an intraposed (extended) VP. If that were all, the position of the complementizer should not matter. On the other hand, if the complementizer does make a semantic contribution, we expect it to be clause-initital when it is a demonstrative-like and the factive is in a postverbal position. What is unclear is what the complementizer should be like when the CP can only be preverbal.” As I have argued here, at least in Turkish, that complementizer will nevertheless have nominal features, much like a demonstrative, which manifests itself through genitive subjects and nominal agreement.

- I. CP complements in SVO languages are head-initial
- II. Those SOV languages which show CP-extraposition have head initial CPs.
- III. SOV languages which do not allow CP-extraposition have head-final CPs.

Nevertheless, I argue for the following: the reason why Turkish nominalized clauses as well as Turkish ERCs which are argued here to be CPs, do not extrapose like German or Dutch is not because Turkish nominalized clauses are DPs and thus not subject to the CRP. The reason why Turkish CPs do not extrapose is because they are already satisfying an alignment condition, where the C of the nominalized clause is immediately dominated by V.

## 5.5 Finiteness in Turkish

In this section I will make a few remarks on finiteness in Turkish, as the issue of finiteness came up in Chapter 3. Despite the fact that the term finiteness is used quite extensively in the literature, it is a notion that is still not well-understood, or well-described for that matter. As put by Nikolaeva (2010), some typologists question the universality of the finite/non-finite distinction, whereas others claim that finiteness is a scalar meta-phenomenon or a functional tendency, which is defined by a cluster of correlating parameters. In such an approach to finiteness, no description or decision is needed as to what feature is essential for finiteness since finiteness has different morphosyntactic manifestations across languages.

Nevertheless, in generative syntax the finite domain is traditionally considered to be specified for tense or agreement and the non-finite domain is not specified for these. The subject-verb agreement is thought of as agreement between the subject and finiteness (i.e., the INFL category), although tense and agreement are morphologically expressed on the

verb due to head movement and merging of inflectional elements with the verb (Nikolaeva, 2007). As such, finiteness correlates with the presence of an overt subject in the nominative case. In non-finite contexts, nominative subjects are banned, due to the Case Filter (at least in Government and Binding), which requires that every overt NP has an abstract Case, which may or may not be phonologically realized (cf. Chomsky (1981)).

For Turkish, recall from Chapter 3 that it is standardly assumed that it is agreement that determines finiteness in Turkish (see George and Kornfilt (1981), Kornfilt (2003, 2007), among others).<sup>18</sup> The crucial data comes from embedded root clauses. In example (21), we see that the embedded root clause has a nominative subject, is specified for tense (future in this case), and appears with verbal agreement marking on the embedded verb:



In example (22), we see that the subject in the embedded root clause appears with accusative case marking. Moreover, the subject-agreement on the verb is missing:



<sup>18</sup>Kornfilt (2007) argues that agreement is not only the finiteness inducer, but also the primary subject licenser. She also claims that tense plays a role in finiteness phenomena, too, but only where agreement is also present. In the absence of agreement, tense is not a factor in determining finiteness. The role of tense in creating finite (opaque) domains was determined through data regarding NPI-licensing, and anaphoric and pronominal binding. Tense is claimed to be the secondary, weaker factor of opacity, and hence also finiteness.

Such examples prompted George and Kornfilt (1981), Kornfilt (2007), among others, to assume that the lack of subject verb agreement on the embedded verb rendered the embedded clause non-finite, and thus, the subject cannot get (null) nominative case. Instead, it receives accusative case.<sup>19</sup> Thus, it is claimed that tense without agreement does not lead to syntactic finiteness. However, as also mentioned in Chapter 3, examples such as (22) can occur with overt subject-agreement as well:<sup>20</sup>

- (23) [ Sen-i sinav-i geçmiş-ecek-sin ] san-iyor-um.  
       [ you-Acc test-Acc pass-Fut-2Sg ] believe-Prog-1Sg  
       'I believe you will pass the test.'

The fact that speakers find (23) grammatical does pose problems for an account that claims that the accusative marking on the subject is due to the absence of agreement (and therefore, nominative case in this verbal environment).

Next, consider an example given to strengthen the “Agr as a Finiteness marker” view:



In the example above the subject appears with nominative case, the embedded verb is fully

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<sup>19</sup>Both ECM or Raising analyses for the accusative marked subject have been put forth. See Chapter 3 for details.

<sup>20</sup>Kornfilt (2007) acknowledges the existence of speakers who allow accusative subjects in such contexts even when an agreement morpheme is present on the embedded verb. She further states that not all speakers accept such sentences anyway, while all speakers do accept accusative subjects in the absence of subject-verb agreement, and no speaker accepts nominative subjects when that subject-verb agreement is absent.

specified for tense, but there is no subject-verb agreement marking on the verb. Despite the genuine tense, the sentence is ungrammatical, and the reason given for that is the lack of agreement, or better said, the non-finiteness induced by this lack of agreement. In other words, this non-finite domain (caused by the absence of agreement) is not compatible with a nominative case marked subject (Kornfilt, 2007).

However, the reason for why (24) is wrong could simply be for the same reason the following sentence in English is wrong:

- (25) \*I believe that she **live** in Ankara.

That is, the reason why (24) and (25) are wrong is simply because they appear with incorrect agreement. Adding the correct subject-verb agreement on the verb renders both sentences grammatical. Thus, I consider agreement to be a by-product of a licensed subject, not the pre-condition for subject licensing (or subject case).

Nominalized clauses are also claimed to show that agreement defines finiteness. In the example in (26), the embedded clause is an infinitival clause. The infinitive marker *-mAK* appears on the verb, there is no agreement marking on the verb, and the subject is PRO:

- (26) Beni [ PRO<sub>i</sub> sınav-ı gec-mek ]-ten kork-uyor-um.  
I [ PRO test-Acc Pass-Inf ]-Abl fear-Prog-1Sg  
'I am afraid to pass the test.' Kornfilt (2007, p. 318)

In example (27), the embedded clause is a *-mA* nominalization. The embedded verb has nominal subject-verb agreement, the subject has genitive case, but the embedded clause has

no tense specification.<sup>21</sup>

- (27) Ben [ Ali-nin sınav-ı geçmiş-me-sin ]-den kork-uyor-um.  
I [ Ali-Gen test-Acc pass-nfn-3Sg ]-Abl fear-Prog-1Sg  
'I am afraid that Ali might pass the test.' Kornfilt (2007, p. 318)

The sentence in example (28) shows that an infinitival clause cannot have overt subject-verb agreement markers. Moreover, overt subjects are not possible in such infinitival clauses, irrespective of the case:

- (28) \*Ben [ Ali / Ali-nin sınav-ı geçmiş-mek ]-ten kork-uyor-um.  
I [ Ali / Ali-Gen test-Acc pass-inf ]-Abl fear-Prog-1Sg  
Intended reading: 'I am afraid for Ali to pass the test.' Kornfilt (2007, p. 318)

The conclusion drawn from this is that regardless of what the case of the subject is in example (28), an overt subject is not licensed when an overt agreement morpheme is absent. Thus, it is agreement that licenses both an overt subject as well as case.

However, the question arises why it should be expected of infinitival clauses to license subjects to begin with. The reason why (28) is ungrammatical is because of the same reason why the English sentence in (31) is ungrammatical.

- (29) I'm scared to leave the house.

- (30) I'm scared for John to leave the house. / I'm scared that John leaves the house.

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<sup>21</sup>Recall from Chapter 4 that *-mA* nominalized clauses are shown to be subjunctive clauses that do not have an independent tense domain.

- (31) \*I'm scared John to leave the house.

That is, the reason why (28) and (31) are ungrammatical is because an infinitival will only license PRO. Obviously, the subjunctive nominalized clause in (27) and the infinitival clause in (26) have many similarities: both do not have an independent tense domain, *-mA* and *-mAK* seem to be related morphologically, etc. The only properties that distinguish (26) and (27) are (i) an overt and cased-marked subject in (27), and (ii) (nominal) agreement on the verb in (27). Although it does seem on the surface that the agreement licenses the subject (and its case), I argue that the agreement is simply a by-product of a licensed, case-marked subject. That is, the occurrence of the nominal agreement marker is due to the licenced, case-marked subject.

Nevertheless, the question arises as to why (27) is grammatical, that is, why (27) has a licensed (genitive) subject in the first place. As argued in Chapter 4, the subject of such subjunctive nominalized clauses is licensed via C. The example in (27) appears to be analogous to subjunctive clauses in some other languages that lack independent tense domains, have nominative subjects and agreement marking on the subjunctive verb. Consider the following example from French:

- (32) Nous sommes désolés que notre président soit un idiot.  
We are sorry that our president be.3Sg.Sub an idiot  
'We are sorry that our president is an idiot.' Siegel (2009, p. 1861)

Whatever feature or mechanism it is that allows a licensed subject in such subjunctive clauses could be assumed to be at play in Turkish as well.

Another analogous case could be the English case where the complementizer *for* licenses

a subject in a tenseless domain:<sup>22</sup>

- (33) I want for him to be happy.

Regarding subject (and subject case licensing) in Turkish, it appears that C in embedded contexts is critical. This may not be too surprising as it seems that it is generally true of languages that if there is an overt element in C in embedded contexts, the clause will always have a subject regardless of whether that overt C element is in a finite or non-finite domain.

On the basis of the discussion above, I reject the claim that agreement defines finiteness in Turkish, but I follow Kornfilt (2003, 2007) in her argument that in Turkish not just the nominative but also the genitive subject can be an expression of finiteness “as long as it can be shown that such genitive case is indeed licensed clause internally (i.e. in similar ways to the nominative).”<sup>23,24</sup>

It is obvious, that a lot more work is needed to fully understand finiteness in Turkish

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<sup>22</sup>Though it should be noted that *for* in such *for-to* constructions is claimed by some not to be a complementizer.

<sup>23</sup>See Chapter 4 for a detailed analysis of why and how nominalized clauses exhibit genitive subjects and nominal agreement.

<sup>24</sup>Cowper (2002), who claims that the traditional understanding of finiteness, namely that it consists of the ability to assign structural (nominative) case to a subject, and the possibility of having phi-feature agreement encoded on the verb, is essentially correct, argues that Turkish subjunctive nominalized clauses such as in (27), in her terms “agreeing gerunds”, denote bare events (just like inflected infinitives in Portuguese). Furthermore, she claims that “agreeing gerunds” in Turkish are neither finite nor pseudo-finite, but instead, they simply exhibit ordinary possessive nominal behavior. Even if we assume that Cowper (2002) is correct with respect to subjunctive nominalized clauses, her claim that finiteness consists of the ability to assign nominative case does not carry over to indicative nominalized clauses, which are phases, have independent tense domains, denote propositions (not bare events), yet have genitive subjects.

and its morphosyntactic and semantic manifestations across its clausal complements. Such work is left for future research.

## CHAPTER 6

### CONCLUSION

In this dissertation we have looked at the syntactic structure and semantic/pragmatic properties of various clausal complements in Turkish. The primary goal was to propose a new classification of such clausal complements in Turkish and offer an analysis that is in line with current syntactic and semantic/ pragmatic theories. The contributions made in this dissertation can be summarized as follows.

In Chapter 2, I analyzed *ki*-clauses in Turkish, which unlike “native” clausal complements, appear strictly to the right of the matrix verb, therefore not conforming to the standard SOV pattern of Turkish. Traditional analyses of *ki*-clauses analyze such clauses as subordinate clauses analogous to an Indo-European style of complementation (see Kornfilt (1997, 2005b), Göksel and Kerslake (2005), among others). Such analyses consider *ki*, a borrowed element from Persian, to be a complementizer of the Indo-European style, and the *ki*-clause to be base-generated in their surface position (rather than adjoined to clauses) (Kornfilt, 2005b). However, in this dissertation arguments are provided that *ki*-clauses are paratactic clauses, having their own assertoric illocutionary force and with *ki* being a coordinator of category C. The puzzling root-clause character of these clauses, as well as their characteristic syntactic/semantic behavior with respect to word order, NPI-licensing, wh-questions, binding, and focusing adverbs are explained by virtue of this paratactic analysis. The proposed account of *ki*-clauses is derivational, capturing the relationship that the *ki*-clause has with a position inside the matrix clause through an adaptation of Torrego and Uriagereka (2002) analysis of parataxis used for *como*-clauses in Spanish, and Yoon (2011) paratactic analysis of Korean subjunctive and evaluative negation constructions.

Chapter 3 examined clauses traditionally labelled as ‘fully finite complements,’ ‘fully finite and verbal complements,’ ‘finite complements,’ etc. A closer look at such clauses revealed that what makes such clauses distinctive is not their property of being finite. Rather, the peculiar syntactic and semantic/pragmatic properties of such clauses are shown to be due to the fact that such clauses are simply embedded root clauses (ERCs). Much like *ki*-clauses, such ERCs were also shown to be assertions, introducing new information into the discourse. Furthermore, it was shown that the distribution of object ERCs (assertive CPs) is identical to the distribution of bare object NPs (existential NPs), where both are shown to be exclusively within the nuclear scope of the quantification structure. Under this new analysis of “finite complements,” accusative-marked subjects that may occur in such clauses receive a natural explanation: when topical/referential, the subject of the ERC has to move out of the ERC (i.e. the nuclear scope) into the matrix clause, where it will get accusative marking, just like any other topical/referential object. This movement of the ERC subject into the matrix clause was shown to be due to reasons of information structure and not due to reasons of case, i.e. the non-finiteness of the embedded clause.

In Chapter 4 two types of nominalized clauses, namely *-mA* and *-DIK/-AcAK* were examined. Evidence was provided to show that *-mA* clauses are subjunctive, whereas *-DIK/-AcAK* clauses are indicatives. Both nominalized clauses were argued to be CPs, with no nominal layer below or above them. Instead, it was argued that the nominal property of such clauses comes from an [+n/-v] feature in C that can only manifest itself through nominal agreement and nominal subject case (= genitive). It was argued that in languages such as English or German, the [+n/-v] feature in C manifests itself through a (nominal) complementizer, namely *that* and *dass*, respectively. As such nominalization in Turkish is considered to be essentially the same as *the* and *dass* clauses in English and German. Thus, Turkish and languages such as English and German differ only in the way the [+n/-v] feature

of C is manifested.

In Chapter 5 the parallel behavior of DPs and CPs was further explored. It was concluded that there is a tight relationship between the position and the interpretation of both DPs and CPs in Turkish: extending Diesing's (1992) Mapping Hypothesis to CPs, it is argued that referential arguments—both DPs (accusative marked object NPs) and CPs (nominalized clauses)—are externally merged above the VP, whereas non-referential arguments—both DPs (bare object NPs) and CPs (embedded root clauses) are below the VP, in the nuclear scope.

**APPENDIX A**  
**GLOSSES**

<b>Gloss</b>	<b>Meaning</b>
1Sg	= 1 <sup>st</sup> person singular; agreement marker from the verbal paradigm
1SgPoss	= 1 <sup>st</sup> person singular possessive; agreement marker from the nominal paradigm
Gen	= Genitive
Nom	= Nominative
Abl	= Ablative
Abil	= Abilitative
Cop	= Copula
Loc	= Locative
Acc	= Accusative
Dat	= Dative
Past	= Past
Pass	= Passive
Prog	= Progressive
Perf	= Perfect
Comp	= Complementizer
GER	= Gerund
RC	= Relative Clause
Inf	= Infinitive marker
Subj	= Subjunctive
Fact	= Factive
Nfact	= Nonfactive
CMPM	= Compound marker
DIK	= Indicative nominalizer
mA	= Subjunctive nominalizer

Table A.1: Glosses

APPENDIX B  
PREVIOUS ANALYSES OF ACCUSATIVE-MARKED SUBJECTS OF  
'FINITE, VERBAL COMPLEMENT CLAUSES' IN TURKISH

	Moore (1998)	George and Kornfilt (1981), Kornfilt (2007)	Zidani-Eroğlu (1997)	Şener (2008)
Description of Bare CPs	Finite clause (Agreeing direct complements)	Direct Complements (purely sentential); Fully finite verbal embedding with all the morphological properties of a root clause	Finite, embedded sentence	Finite complement clauses with a null C
Analysis of Subjects with the Accusative Case	Subject-to-object Raising; Non-Agreeing Direct Complements	1984, 1996b; ECM; 1997: subject moves to a position in the matrix clause (subject-to-object raising), where that subject receives accusative Case. 2007: does not address it, is agnostic (focuses on finiteness only)	ECM NP raises to a position in the matrix clause at S-Structure, where it also receives accusative Case.	Accusative-marked subjects do not undergo obligatory raising to the matrix clause, which hosts the licensor of Accusative Case.
Motivation for Subject Movement and/ or Accusative Case on Subjects	Contrast between agreeing and non-agreeing direct complements is similar to the finitine/non-finite contrast found in English complementation. These claims are based on George and Kornfilt (1981).	Case. Lack of Agr features renders clause non-finite. Kornfilt (2007, p. 318): “While agreement and its overt expression is the primary factor in defining finiteness in Turkish embedded clauses— clauses that can be either verbal or nominal— temporal marking can also contribute to finiteness as a secondary marking.”	Embedded verb lacks Agr features responsible for nominative Case in Turkish (Zidan-Eroğlu 1993). Thus, the embedded thematic subject must receive Case other than nominative (leaving aside the mode of Case assignment).	The subject of these complement CPs undergo Topicalization in Turkish and thus they occupy the highest position in their clause (i.e. the edge). A syntactic object SO of a lower locality domain LD1 can establish a licensing relation (Agree, à la Chomsky 2001) with the licensor L in the next higher Locality domain LD2 if SO is at the edge of LD1. Thus, a subject NP moves close enough to its matrix licenser to get its Accusative Case licensed.

Table B.1: Previous Analyses of Accusative-marked Subjects of 'Finite, Verbal Complement Clauses' in Turkish

## APPENDIX C

### SELECTION AND DISTRIBUTION OF *-DIK/-AcAK* AND *-mA*

Selection is an important difference between *-DIK/-AcAK* clauses and *-mA* clauses. Certain types of predicates select either for *-DIK/-AcAK* or *-mA*. There are some predicates that select both but only in certain distributions. The following is a list of the predicates that select *-DIK/-AcAK* nominalized clauses:

- **Semi-factive Predicates:** bil-mek (know), öğren-mek (learn, find out), ortaya çıkar-mak (discover, bring out), gizle-mek (hide), gör-mek (see), farkına var-mak/ fark et-mek (realize), keşfet-mek (discover), etc.

- (1) Buse-Ø [ Sinem-in hasta ol-dug-un ]-u öğren-di-Ø.  
 Buse-Nom [ Sinem-Gen sick be-DIK-3SgPoss ]-Acc find.out-Past-3Sg  
 ‘Buse found out that Sinem is sick.’

- **Non-factive, Epistemic Predicates:** inan-mak (believe), san-mak (suppose, believe), varsay-mak (suppose, assume), farzet-mek (suppose, hypothesize), hayal et-mek (imagine), düşün-mek (think, assume), etc.

- (2) Buse-Ø [ Sinem-in hasta ol-dug-un ]-u düşün-üyor-Ø.  
 Buse-Nom [ Sinem-Gen sick be-DIK-3SgPoss ]-Acc think-Prog-3Sg  
 ‘Buse thinks that Sinem is sick.’

- **Factive, Non-emotive Predicates:** sezmek (anticipate, sense), farkında ol-mak (be aware of), unut-mak (forget), hesaba kat-mak (take into account), etc.

- (3) Buse-Ø [ Sinem-in hasta ol-dug-un ]-u unut-tu-Ø.  
 Buse-Nom [ Sinem-Gen sick be-DIK-3SgPoss ]-Acc forget-Past-3Sg  
 ‘Buse forgot that Sinem is sick.’

- **Non-factive, Non-emotive Predicates:** söyle-mek (say), tahmin etmek (predict), iddia et-mek (claim), ima et-mek (imply), yaz-mak (write), kabul et-mek (admit), haykir-mak (exclaim), anlat-mak (tell, report), ileri sür-mek (allege, assert), etc.

(4) Buse-Ø [ Sinem-in hasta ol-duğ-un ]-u iddia ed-iyor-Ø.  
 Buse-Nom [ Sinem-Gen sick be-DIK-3SgPoss ]-Acc claim do-Prog-3Sg  
 'Buse is claiming that Sinem is sick.'

- **Non-factive, Non-emotive (when the *-DIK/-AcAK* nominalized clause is a sentential subject):** doğru (true), açık (clear), belli (obvious, evident), ortada (obvious), aşikar (apparent), çokça biliniyor (well-known), kesin (be certain), emin (be sure), etc.

(5) [ Sinem-in hasta ol-duğ-u ]-Ø belli.  
 [ Sinem-Gen sick be-DIK-3SgPoss ]-Nom obvious  
 'That Sinem is obvious/ It's obvious that Sinem is sick.'

Nominalized clauses with *-mA*, on the other hand, are selected by the following predicate classes:

- **Verbs belonging to the want-class (desideratives and directives):** iste-mek (want, ask), dile-mek (wish), ihtiyaci ol-mak (need), tercih et-mek (prefer), emret-mek (order, command), rica et-mek (request), talep et-mek (demand), etc.

(6) Buse-Ø [ Sinem-in hast ol-ma-sın ]-ı iste-di-Ø.  
 Buse-Nom [ Sinem-Gen sick be-mA-3SgPoss ]-Acc want-Past-3Sg  
 'Buse wanted for Sinem to be sick.'

- **Factive-emotive Predicates (when the *-mA* nominalized clause is a sentential subject):** önemli (important), üzücü (sad), yeterli (suffice), rahatsız et-mek

(bother), trajedi (a tragedy), etc.

- (7) [ Sinem-**in** hast ol-**ma-sı** ]-Ø üzücü.  
[ Sinem-Gen be sick-mA-3SgPoss ]-Nom sad  
'For Sinem to be sick is sad/ It is sad that Sinem is sick.'

- **Non-factive, Non-emotive Predicates (when the -mA nominalized clause is a sentential subject):** muhtemel, olası (probable), muhtemel (likely), an meselesi (imminent), mümkün (possible), etc.

- (8) [ Sinem-**in** hast ol-**ma-sı** ]-Ø an meselesi.  
[ Sinem-Gen be sick-mA-3SgPoss ]-Nom imminent  
'For Sinem to be sick is imminent/ It is imminent for Sinem to be sick.'

- **Non-factive, Emotive Predicates (when the -mA nominalized clause is a sentential subject):** imkansız (improbable), muhtemel olmayan (unlikely), saçma (nonsense), etc.

- (9) [ Sinem-**in** iyiles-**me-sı** ]-Ø imkansız.  
[ Sinem-Gen heal/recover-mA-3SgPoss ]-Nom improbable  
'For Sinem to recover is improbable/ It is improbable for Sinem to recover.'

One class of predicates, namely True Factives (a.k.a. Factive, Emotive Predicates), can take both -DIK/-AcAK and -mA clauses:

- **True Factives (a.k.a. Factive, Emotive Predicates):** kız-mak (be angry), üzülmek (be sorry), acı-mak (deplore), alın-mak, içerle-mek, gücen-mek (resent ), şaşır-mak (be surprised at), etc.

- (10) a. [ Ediz-in kazan-**ma**-sin ]-a sevin-di-m.  
       [ Ediz-Gen win-mA-3SgPoss ]-Dat be.happy-Past-1Sg  
       ‘I’m happy that Ediz won./ I’m happy for Ediz to win’
- b. [ Ediz-in kazan-**dıg**-in ]-a sevindim.  
       [ Ediz-Gen win-DIK-3SgPoss ]-Dat be.happy-Past-1Sg  
       ‘I’m happy that Ediz won.’

However, when a nominalized clause occurs in the subject position of such factive-emotive predicates, the nominalized clause is necessarily a *-mA* clause:

- (11) a. [ Ediz-in kazan-**ma**-si ]-Ø ben-i sevin-dir-di.  
       [ Ediz-Gen win-mA-3SgPoss ]-Nom I-Acc be.happy-Caus-Past-3Sg  
       ‘It made me happy that Ediz won.’ or ‘For Ediz to win made me happy.’
- b. \*[ Ediz-in kazan-**dıg**-i ]-Ø ben-i sevin-dir-di.  
       [ Ediz-Gen win-DIK-3SgPoss ]-Nom I-Acc be.happy-Caus-Past-3Sg  
       Intended: ‘It made me happy that Ediz won/ That Ediz won made me happy.’
- (12) a. [ Ediz-in kazan-**ma**-si ]-Ø üzücü.  
       [ Ediz-Gen win-mA-3SgPoss ]-Nom sad.  
       ‘It is sad that Ediz won’
- b. \*[ Ediz-in kazan-**dıg**-i ]-Ø üzücü.  
       [ Ediz-Gen win-mA-3SgPoss ]-Nom sad.  
       Intended: ‘It is sad that Ediz won’

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