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This dissertation explores the phenomenon of finiteness as Nominative case and its significance for the theory of syntax. It questions the relevance of Tense and Agreement as a Nominative Case licensing feature within the Minimalist Framework. It discusses the syntactic feature(s) that license nominative and non-nominative subject-case particularly in Turkish clausal structures as well as other Turkic languages, i.e., Tuvan and Kazakh. Based on arguments particularly from Turkish data, it is proposed that (a) the feature licensing nominative subject case in finite clauses Turkish is a complex feature consisting of mood on Complementizer head and epistemic modality on Finiteness head, and it marks finiteness in Turkish, and possibly English, Catalan, European Portuguese, Japanese and Italian; (b) the feature licensing Genitive or Accusative case on subjects of non-finite (ECM) clauses is a feature on an external functional head, which licenses; a nominal functional feature on Determiner/Kase (D/K) licenses Genitive, a verbal functional feature on v licenses Accusative. Agreement in Turkish marks the presence or absence of a Mood feature on C in a clausal structure. It is also argued that subject case and clausal agreement mark syntactic (in)dependency of clauses in Turkish. This analysis predicts the lack of either epistemic modality or mood feature within ECM
constructions. The major theoretical implication of this dissertation is the disassociation of Case and Agreement features in case licensing.
“...if the nut of the mystery cannot be held, at least let me touch the shell.”

Jelaluddin Rumi

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1 “it’s a tough nut to crack/ that CP shell” - Conor Quinn.
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I would not say that stumbled into linguistics by accident, because I do not believe in accidents in the first place. I became aware of a discipline called linguistics through Noam Chomsky’s name: I knew his work on the world politics well and was intrigued by the fact that he also happened to be the linguist who has revolutionized the field! I was and still am mesmerized by the fact that he is an expert of the study of language, which, by the way, is also his chief tool of struggle. I am grateful to him for not only inspiring me to become a linguist but also for providing a model, the socially conscientious scholar model, and creating time in his unbelievably busy schedule for me to discuss both linguistics and matters of the world.

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2 Kibo is from Turkish Kibar Oğlan ‘Gentle Boy’.
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unfulfilled dreams; in particular

To my beloved friend

Ercan Gündoğdu (1957-1980)
### Abbreviations

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1. Investigating *finiteness* as a Nominative Case licensing feature and Subject-Case licensing

This dissertation explores the phenomenon of *finiteness* as Nominative case and its significance for the theory of syntax. This research questions the relevance of Tense and Agreement as a Nominative Case licensing feature. The theoretical question addressed is the exclusively [+Tense] oriented minimalist theory of Nominative case-licensing that parametrizes languages according to the feature on $T$, i.e. [+tense] or [+phi features/Agreement] (Chomsky 1981, 1986b, 1995).

The goal of this dissertation is to find answers to the following questions:

Q.1. What (feature) licenses nominative and non-nominative subject case in various types of clauses in Turkish?

Q.2. What are the implications of these differences for the internal structure of these clauses?

Q.3. What types of syntactic operations are relevant for case licensing in Turkish?

Q.4. Can this analysis be extended to other languages?

Based on the arguments and discussions in the following chapters, I will give the following answers to these questions:

A.1. It will be proposed that the feature licensing nominative and non-nominative
subject case in Turkish is: 1) a complex feature consisting of mood and epistemic modality, which marks finiteness in Turkish, and possibly English; 2) a clause external feature on an external functional head, which licenses Genitive or Accusative on subjects; 3) a nominal functional feature on Determiner/Kase (D/K) licensing Genitive, as well as a verbal functional feature on v licensing Accusative. Agreement marks the presence or absence of a Mood feature on C in a clausal structure.

A.2. The implications of these differences for the internal structure of these clauses are the following: The type of subject case shows the syntactic dependence or independence of a clause to a higher clause, while showing as well that nominative marks independence, while genitive marks dependence. The paradigm of Agreement distinguishes subordinate clauses with dependent mood from [+Indicative] Root clauses, and [-Indicative] adjunct or complement clauses. The paradigm also contributes to marking the (in)dependence of a clause in terms of mood.

A.3. The types of syntactic operations relevant for case licensing in Turkish are overt phrasal movement, covert phrasal movement, and Agree.

The major theoretical implication of this dissertation is to disprove that Case and Agreement are necessarily interdependent features, and to propose a uniform hypothesis for Nominative licensing feature(s) cross-linguistically. The previous approach parametrizes languages as tense-based English-type languages vs. Agreement-based Turkish-type languages (Chomsky 1981, 1986a, Hwang 1997).

A.4. As for whether we can extend this analysis to other languages, research into restricted data from European Portuguese, Catalan, and Italian suggests that these languages that
have been assumed to license nominative by agreement, but may in fact be accounted for by the proposed analysis. Also, it will be shown how English subjunctive clauses with nominative subjects fall into the same pattern.

By following both Lyons (1977) in assuming that tense is a kind of epistemic modality, and the arguments provided by Enç (1991), Pesetsky (1991) and Hwang (1997) for tense-less English clauses, it is possible to analyze what was called tense as epistemic modality.

The definiteness marking property of case (and agreement) in Turkish, along with clausal definiteness in Hungarian helps us account for the distribution of the complementizer that in English argument clauses without resorting to T-to-C movement as proposed in Pesetsky & Torrego (2001).

1.1. What finiteness accounts for in syntax and Turkish facts

In generative linguistics, finiteness has been studied as defining a syntactic domain, creating an island for clause external syntactic operations. Finiteness is defined in this context as the feature licensing Nominative Case on subjects of clauses. In English, it has been observed that raising is impossible out of a finite clause. Raising out of a non-finite clause is also ungrammatical if the raised item crosses a c-commanding subject (1&2). In the Extended Standard Theory, these effects were explained by the Tensed-S Condition (Chomsky 1973):

(1) *They seem that left

  (cf. ‘They seem to have left’)

Turkish facts are seen problematic for regarding tense as a finiteness parameter (Mulder
It was observed that Turkish allows raising out of finite, i.e. *tensed* clauses, unlike English:

\[
\text{(2) } \quad \text{Biz-∅ san-a } [ \text{t içki iç-ti-(k)} ] \text{ gibi gőrün-dü-k} \\
\text{We-Nom you-dat alcoholic drink drink-perf-1pl like appear-perf-1pl} \\
\text{‘We appeared to you to have drunk alcohol’}
\]

(Mulder 1976, George & Kornfilt 1981, Moore 1998 among others)


Another property of Finite/Tensed Clauses is that they license lexical subject in the Nominative Case (3), whereas structures that lack Tense, i.e. ECM, have Accusative subjects licensed by the higher verb (4):

\[
\text{(3) } \quad \text{I understand that he will be late.} \\
\text{(4) } \quad \text{I consider him to be late.}
\]

However, Turkish facts are problematic for regarding tense as a Nominative case licenser, i.e. a finiteness parameter. The first problem lies in ECM complements, which in Turkish seem to exhibit identical tense morphology as in the finite clause:

\[
\text{(5) } \quad \text{Sen-∅ gel-di-n.}
\]
As far as its surface form is concerned, the Finite Complement Clause (FCC) in (6) is identical to the root clause in (5):

\[(6)\quad \text{Ben-∅ [sen-∅ gel-di-n]} \quad \text{san-dt-m.}\]
\[
\text{l-Nom you-nom come-perf/past-2sg think-perf/past-1sg}
\]
\[
\text{‘I thought you came/have come’}
\]

These FCCs are selected by a set of verbs also selecting ECM complements, and ECM predicates seem to be also inflected for tense:

\[(7)\quad \text{Ben-∅ [sen-i gel-di-(n)]} \quad \text{san-dt-m.}\]
\[
\text{l-Nom you-acc come-perf/past think-perf/past-1sg}
\]
\[
\text{‘I thought Kürşat came/has come’}
\]

If Tense is the Nominative Case licenser in Turkish, we would expect Nom in (6) to be just like in (5). This observation has lead to the idea that Agreement rather than Tense is the Turkish finiteness parameter (G&K 1981).

Another fact about Turkish is that Nominative subject occurs in adjunct clauses that do not exhibit tense morphology. Some of them do not bear the agreement morphology either (8,9):

\[(8)\quad \text{Sen-∅ gel-ince parti-ye gid-eceğ-iz}\]
\[
\text{you-Nom come-when party-dat go-fut-1pl}
\]
\[
\text{‘When you come, we will go to the party’}
\]
If Nominative Case is an indication of finiteness, then finiteness cannot be marked by tense in Turkish. After George and Kornfilt (1981 and Kornfilt 1986, 1987, 1997, 1999, 2001) Agreement has been taken to be an indication of finiteness in Turkish.

Nominative subject case is argued to be assigned/licensed by a functional head. The parametric variation on this issue is attributed to the nature of the functional head that assigns/licenses the subject case. In English type languages, T is argued to be the relevant functional head (Stowel 1982, among others), while in Turkish type languages, the head is argued to be Agr (Kornfilt 1984, 2001, Raposo 1987, among others). Some scholars argue that, cross-linguistically, it is TP that bears phi features, and that Agreement cannot be an independent maximal projection (Iatridou 1990). In all the claims about case on subject, the concept of finiteness is the crucial ingredient of the analyses where finiteness is defined as Tense and/or Agreement.

In Turkish though, which is representative of Turkic languages, I will argue that neither Tense nor Agreement per se determine case on the subject of clauses. We observe clauses with Nominative or Genitive subjects, where agreement on the predicate remains the same.

(9) Sen-∅ gel-dik-ten sonra parti-ye git-ti-k
   You-nom come-perf-abl after party-dat go-perf-1pl
   ‘We went to the party after you came’

(10) Ben-∅ [Ali-nin cam-ı kır-dığ-ı zaman]ı biliyor-du-m
   I-Nom -GEN glass-acc break-DIK-agrN time-Acc know-prog-past-1sg
'I knew when Ali broke the glass'

I-Nom Ali-NOM/*Ali-GEN glass-acc break-DIK-agr time truth-acc

bil-iyor-du-m.
knew-prog-past-1sg
’I knew the truth when Ali broke the glass’


Data in (10) and (11) recall the GA/NO alternation in Japanese and will be discussed as part of that phenomenon in Chapter 2. The analysis excluding clause internal Agreement as a genitive licenser in Turkish, Kazakh, Tuvan and Dagor is also presented in Chapter 2.

1.2. Layout of the dissertation

In the exploration of the syntactic feature involved in Nominative case licensing, the data from Modern Turkish in (10&11) above and the corresponding Tuvan and Kazakh data, as well as Turkish root clause (5), finite complement clause (6) and ECM (7) will be the core data.

Chapter 2, lays out the theoretical background of the GA/NO phenomenon which the core data in (10&11) is related to. In 2.1., the analyses of Miyagawa (1993) and Ochi (2001) are discussed. It is claimed that the analysis of Miyagawa that is based on an external nominal head is attested in Turkish. The availability of covert phrasal movement as a syntactic process in Turkish is discussed and supported by Turkish variable-binding constructions. As part of the arguments against a V-to-T-to-C based analysis of GA/NO (Hiraiwa 2000) that cannot account for Turkish data, a discussion of V-C in Verb final languages is given in 2.3. In 2.4., the proposed analysis for Turkish GA/NO is presented. Since Hiraiwa (2000) and other previous
work on Turkish regard *phi features* to be the licensing feature for Genitive subjects in Turkish, the detailed analysis and discussion of data (12&13) is given in Chapter 3 on Agreement as Finiteness.

2.5. discusses the special semantics of Genitive case, which has significance for the analysis of core data in (12&13), as well as providing counterevidence to Agreement/phi features based analyses of genitive such as Hiraiwa (2000) and Kornfilt (2001) (Chapter 2 &3). I will present evidence from Russian Genitive under Negative constructions where Genitive behaves like an indefinite quantifier, and Genitive within generic contexts in Turkish where it behaves like an indefinite.

Part 2.3. discusses a constraint on *overt phrasal movement* in Turkish. The significance of this part for the research is the analysis of a restriction on scrambling (both post-verbal scrambling to sentence-final position and clause external focus driven scrambling to sentence initial position). A uniform account of this restriction is given as a *Relativized Minimality Effect* similar to Karimi (1998) Condition on Long Distance Scrambling. This is significant in both Chapter 2 and Chapter 3 (Agreement as finiteness) because availability of post-verbal scrambling has been used as a syntactic test in Turkish linguistics, which I will argue against. Discovering an independent source of ungrammaticality in certain clauses where scrambling has taken place allows us to see the real source of ungrammaticality.

The second half of Chapter 2 focuses on the claim that Agreement is a finiteness parameter and that it is the clause-internal agreement (phi features) that licenses Genitive in Turkish. In section (3.1.), the arguments in G&K (1981) are discussed to show that agreement is *not* a finiteness parameter in Turkish. In section (3.2.), the Turkish GA/NO data is discussed in detail to provide further evidence that Agreement is *not* a Genitive Case licensor in Turkish or in
other Altaic languages, i.e. Tuvan, Kazakh and Dahor. Chapter 3 is on *Tense as Finiteness and Definiteness as a clausal feature*. Section (4.1.) discusses the problems and offers an alternative analysis for tense-based analysis of Nominative case, specifically that of Pesetsky and Torrego (2000). In section (4.2), properties of Hungarian and English non-bridge-verb complements that cannot be accounted for by P&T (2000) are shown to be accountable by a clausal definiteness feature. In this section, the obligatory nature of complementizers in factive and definite complements and the similarity between factivity and definiteness in terms of creating islands is included. In section (4.3.), Tense-less English structures are discussed based on Enç (1991) and Pesetsky (1995a) to argue that temporal interpretation is not necessarily dependent on *tense* in English and that the feature that licenses Nominative subject (tense) and the operator that binds a temporal variable need not be related to the same head, i.e. T. The temporal variable is shown by Enç (1991) to be bound by non-epistemic modal operators, implicit or explicit adverbs of quantifiers. Within the discussion the difference in the behavior of the epistemic modal *must* and the deontic modal *should* that remains unsolved in Pesetsky (1995a) is accounted for.

In Chapter 5, it is argued that what we have been calling Tense as a Nominative Case licenser is in fact Epistemic modality. The proposal that Nominative case licensing has a C and an I component is supported by evidence from Turkish (5.1). In section (5.2.), a short review of the theoretical background of the syntactic and semantic relation between mood and modality is given. The assumptions underlying the feature-based cross-linguistic classification of root and subordinate clauses are presented. The dual function of complementizers in English is, including their modality marking property is discussed. Types of *mood* and *modality* are discussed with reference to Hungarian and a *mood-feature based* classification of types of C is given. The
relation between C and I in terms of a finiteness feature is established. A complex feature, that is an *uninterpretable* Nominative feature, \( uN \) on I (=Finiteness Phrase) and an *interpretable* mood based N feature on C is proposed as part of grammar. The proposed \( uN \) functions *a la uT* of P&T. The possibility that the analysis can be extended to English is proposed based on the assumption that *tense* is a kind of epistemic modality (Lyons 1977, 1995).

Section (5.3) presents how the proposed theory accounts for the “Agreement-based” European Portuguese, English, Turkish data, and the languages such as Navajo and Arabic where subject case alternates with mood. In section (3.3), data from Indo-European languages such as European Portuguese, Greek, Catalan and Italian, and the analyses of Raposo (1987, 1989) and Raposo and Uriagereka (1990) are discussed to argue that agreement need not be the Nominative case-licensing feature in these structures. The proposed analysis may be extended to Native American languages, such as Hopi, as well as, where there is no tense but only epistemic modality in Nominative subject constructions. A hypothesis on what features the languages of the world allow in ECMs is presented and discussed in European Portuguese, Turkish and English ECMs. In section (5.4.), the optional nature of Agreement morphology in Turkish and European Portuguese is accounted for based on the interdependence of mood and modality. In (5.5), a new classification of Agreement Paradigms in Turkic languages is proposed. A syntactic and semantic (in)dependency continuum of clauses is presented for Turkish and it is argued that Agreement is a manifestation and marker of (in)dependency (in terms of mood) whereas subject case is that of syntactic (in)dependency.

In Chapter 5, the questions posed and answered by this dissertation and their theoretical implications are presented. Further questions the proposed theory poses and the answers inherent to the theory including those that are not answered are presented as well.
To conclude, the Nominative Case licensing feature is argued to be a complex finiteness feature with a component from the C domain semantically related to mood and a component from the I domain semantically related to epistemic modality. I will argue that the structures that lack either one or both of the components of the complex finiteness feature become ECM constructions cross-linguistically. As a consequence of this proposal, I will argue against the parametrization between Tense-based and Agreement-based languages. Therefore, the major theoretical implication of this study is the “uncoupling” of Agreement-Case interdependency.

The basic contribution of this research to the field of Turkish linguistics is its radical angle in questioning the analyses, assumptions and observations that have prevailed in the field for decades, and as such it is built on the facts and analyses of all the precious work by various linguists and philologists of the field. The contribution I have attempted to make is two-fold

(i) To propose a new perspective into the theoretical approach to Turkish empirical facts.

(ii) To include data from Turkic languages into the discussion in order to emphasize that typological features of Turkic provide an insight into linguistic issues with theoretical significance.

1.3. Theoretical Assumptions Underlying the Analysis

I assume throughout this dissertation the assumptions underlying the minimalist theory, including the recent addenda of Chomsky (1995, 2000, 2001).

1.3.1. Licensing relations and assumptions

Licensing relation within this framework is based on features. The licensing relation is a
relation according to which a functional head or a feature on a functional head deletes its uninterpretable features either by a process called Agree with the feature on another element, or by the process of Move, where the syntactic element moves to a functional head XP.

Lexical items fall into two types: substantive and functional. The inflectional features of substantive lexical items are an intrinsic property. These features are deleted by Agree (or Move) along with the relevant feature on a functional category. The core functional categories are C (force, mood), T (tense) and v. Functional categories do not carry inflectional affixes; they serve to carry the inflectional features necessary to delete their corresponding uninterpretable features on Vs and Ns via Agree or Merge.

Uninterpretable features cause the derivation to crash, and therefore must be eliminated before the end of a phase, i.e. Spell-Out. Categorial features and phi features on nominals are interpretable, whereas, case features on nominals V and T as well as phi features on V and T are uninterpretable.

A functional head T or v has uninterpretable features. The feature is a probe that seeks a goal, namely ‘matching’ features that establish agreement. The operation of Agree results in the erasure of uninterpretable features of probe and goal. Uninterpretable features render a goal active, i.e. able to implement an operation. In brief, Agree is an operation that establishes a relation between a lexical item (LI) and some feature F in some restricted search domain. Move is an operation triggered by strong features of the target.

Phases of a derivation are propositional syntactic units. CPs and vPs constitute a phase, while TPs do not. A phase head cannot trigger a further operation once it is inert. Therefore, derivation proceeds phase by phase. Chomsky (1998) proposes a condition:
In a strong phase HP, in the configuration \([ZP \ Z \ldots [_{\text{HP}} \ \alpha \ \text{H YP}]]\) ZP the next strong phase:

The domain of H (here YP) is not accessible to operations at ZP, but only H and its edge.

The edge here is defined as the specifiers and/or adjuncts of HP. YP is opaque to features in and above Z; the only way to extract an element into, or beyond the checking domain of ZP, is to first move the element to the space between Z and H. Movement occurs from a strong phase to another. To move a VP internal \(\text{wh} \), the item must first move to the edge of vP before spell-out of V. Anything within a phase that is merged or moved to the edge of the phrase sending information to Spell-Out (phase), and which is marked with a feature meant to serve at a higher domain is free to leave. Definite/specific DPs, quantifiers, and argument \(\text{whs} \) are such constituents provided they move to the edge of a phrase by the end of the phase.

In Chomsky (2000), a distinction between weak and strong phases is introduced. Strong phases are CPs and transitive vPs, weak phases are others (unaccusative, passive vPs). Accessibility of a head of a strong phase is up to the next strong phase under the Phase Impenetrability Condition.

1.3.2. An Overview of The Types of Syntactic Movement

Chomsky (1995, Chapter 4) suggests two types of movement: overt phrasal movement and feature movement, where feature movement is a reanalysis of its predecessor, i.e. covert phrasal movement. Miyagawa (1993) provides arguments from GA/NO Conversion in Japanese to support the need for covert phrasal movement. Pesetsky (2000) argues that feature movement is a different type of syntactic relation from the previous covert phrasal movement. Chomsky
(1998, and 1999) reanalyzes feature movement as an Agree relation for weak features, where feature-matching suffices to delete an *uninterpretable* feature, unlike strong features that require the operation *Move*, i.e. overt movement for feature deletion. I will review the basic arguments that have been provided to support each syntactic movement in the subsections below.

1.3.2.1.  **Overt Phrasal Movement**

Overt phrasal movement is an instance of a word or a phrase pronounced in a position where it is not expected to be pronounced. The position where it is pronounced and where it is expected to be pronounced are in a distinct syntactic relation; the former c-commands the latter. It is a syntactic *movement* because it obeys locality conditions; it is *overt* because the displacement is observed in the phonological form; it is *phrasal* because it is a displacement of a word or group of words. The major evidence comes from reconstruction effects indicating the presence of the moved phrase in both its trace position and the target position. A typical overt phrasal movement is the *wh*-phrase movement in English:

(13)  Which pet food did she give ____ to her cat?

The complement of the verb *give* is dislocated from the position where it is expected to be heard to a sentence initial position, i.e. Spec CP position leaving a trace in its base position.

1.3.2.2.  **Covert Phrasal Movement**

Further research provided the major arguments for another type of movement with no phonological effect (Chomsky 1976, May 1977, 1984, Huang 1981, 1982). This second type of
movement is called *covert movement*. Covert movement is a *movement* because it establishes a syntactic relation between positions that obey c-command similar to overt movement; it is covert because it does not have phonological effect, i.e. the moved constituents are pronounced in their expected position as if there were no movement. It is *phrasal* because words or word groups are copied to the new position.

Covert movement is thought to be language-specific (*wh*-in-situ languages) or construction specific (ACD construction, multiple *wh*-questions in English). A typical covert phrasal movement of *wh*-phrases to C in English is in (12a) with its LF representation in (12b):

(12) a. Who gave what to whom?
   b. Who <what> <whom> [<who> gave what to whom]

*Who* moves in overt syntax and the other *wh*-phrases in covert syntax as given between angle brackets.

The mechanics of covert phrasal movement is seen as a consequence of timing of movement. The model assumed is the inverted Y model of Chomsky and Lasnik (1977), where the determination of what position in a movement chain is going to be pronounced is governed by a Phonological Spell-out Principle. This principle requires that only the highest position be pronounced. In this approach, covert movement takes place after Spell-out, after which point the phonological and logical processing take place on separate derivational tracks.

An alternative approach, Single Output Syntax is proposed in Bobaljik (1995). In this approach, there is only one movement component and the principle of Phonological Spell-out is replaced by a set of principles that determine which position(s) in movement chain will be pronounced. When only the head of the chain is pronounced, it is an overt phrasal movement,
when the trace position is pronounced, it is a covert phrasal movement. An argument of this approach is based on the availability of pronouncing more than one position, as is the case in resumptive pronoun constructions.

In the Minimalist Program (1995, Chapter 3), covert phrasal movement is suggested as the default movement type based on the principle of Procrastination. Overt movement occurs when the triggering feature is strong, and lack of movement would result in a violation of the principle of Full Interpretation at PF. Conversely, covert movement occurs when the feature needing to be checked is weak.

1.3.2.3. **Feature movement and Agree**

The timing principle in Chomsky (1995, Chapter 3) requiring the postponement of movement as late in the derivation as possible contradicts alternative proposals such as the Earliness Principle (Pesetsky 1989). Chomsky (Chapter 4 1995) attempts to resolve this issue in Feature movement (Chomsky 1995) is a reanalyzed form of *covert movement* and it is the predecessor of *Agree* (Chomsky 1998, 1999).

1.3.2.3.1. **Feature Movement**

In 1995 (Chapter 4), Chomsky argues that covert movement is not phrasal after all. In this view, movement is a “repair strategy” through which an *uninterpretable* feature on a *head*, i.e. [+Q] on C, is deleted by the movement of an *interpretable* instance of the same feature to that head (C). Movement is reduced to feature-copying motivated by *weak* features. Overt phrasal movement takes place only when the relevant features cannot be separated from the
syntactic element that bears the feature. For instance, overt movement of DP to Spec TP is due to the unavailability of copying only the D feature. Pied-piping of a phrase is motivated only to prevent the derivation from crashing at LF or PF.

1.3.2.3.2. Agree

Chomsky (1998, 1999) suggests that the uninterpretable feature is a probe that seeks a goal, namely ‘matching’ features that establish agreement. The erasure of uninterpretable features of probe and goal is the operation Agree. In brief, Agree is an operation that establishes a relation between a lexical item (LI) and a feature F in a restricted search domain. Move is an operation triggered by strong features of the target.
CHAPTER 2

Nominative - Genitive Conversion (GA/NO) and Genitive Case Licensing

The focus of this chapter is two-fold: to account for the Turkish data that seem to exhibit the GA/NO phenomenon based on the theoretical background of the phenomenon, and to argue that clause-internal agreement is neither a subject case licenser nor the relevant parameter for finiteness as has been argued in George and Kornfilt (1981, and subsequent work of Kornfilt as well as other work in Turkish linguistics). The goal is to investigate the syntactic feature and the syntactic mechanism that licenses Genitive case on the subject in Turkish. The rest of this dissertation will explore Nominative-case licensing and try to make a prediction concerning the architecture of clauses with non-Nominative subject-case.

In section (2.1.), I present the phenomenon including the core data from Turkish and analysis of Genitive subject subordinate clauses. In section (2.2.), I provide further arguments to support the proposal that clause internal agreement is not a case licenser in Turkish. I discuss one of the major approaches to the issue, i.e. the analyses based on an external nominal head licensing Genitive, namely those of Miyagawa (1993) and Ochi (2001), which differ in terms of the nature of the movement. I also present arguments to show that a covert phrasal movement to a nominal head in Turkish, similar to the one proposed by Miyagawa (1993) is the syntactic mechanism that licenses Genitive in Turkish. I provide further arguments based on Turkish data to support covert phrasal movement. In section (2.2.9.2.), I discuss the particular semantics of genitive Case. In section (2.3.), I question and provide counter-arguments to the claim that...
agreement is the relevant finiteness parameter in Turkish. Section (2.4) concludes the chapter, and discusses the theoretical implications. Appendix A to this chapter provides data from Tuvan, Kazakh and Uzbek relevant to the GA/NO discussion. Appendix B proposes a constraint on overt phrasal movement based on the observation in Sezer (1978) in Turkish.

2.1. The GA/NO Phenomenon

The Nominative-Genitive Conversion (called the GA/NO Conversion since Harada (1971) in Japanese is an extensively studied subject since the early 1970s, including Middle Korean facts in the discussion. The GA/NO construction has a nominative-marked subject that alternates “optionally” with the genitive-marked subject in relative clauses and nominal complements:

(1) Japanese

a. Kinoo John-\textit{ga} katta hon
   yesterday John-\textit{NOM} buy-past-adn book
   ‘the book which John bought yesterday’

b. Kinoo John-\textit{no} katta hon
   yesterday John-\textit{GEN} buy-past-adn book
   ‘the book which John bought yesterday’

A similar observation is made in Turkish, another Altaic language, where two constructions which seem to have the same surface form exhibit an alternation between a Nominative and a Genitive subject (Data 12&13 in Chapter 1 is repeated here as (2a-b):

a. Ben-Ø [Ali-nin cam-ı ktr-diğ-ı zaman]-ı bil-iyor-du-m
   I-Nom -GEN glass-acc break-DIK-agrₙ time-Acc know-prog-past-1sg
   ‘I knew when Ali broke the glass’
   [S-GEN Obj-acc V-DIK-AGR Noun] acc... Complement Clause

   I-Nom -NOM/* -GEN glass-acc break-DIK-agrₙ time truth-acc
   bil-iyor-du-m
   know-prog-past-1sg
   ‘I knew the truth when Ali broke the glass’
   [S-NOM/*GEN Obj-acc V-DIK-AGR Noun]... Adjunct Clause

It is clear from the meaning of the Turkish data (2b) that the alternation is not optional: Genitive is not allowed in (2b) where the subordinate clause is an adjunct. The fact that the genitive subject construction in (2a) is a complement has led linguists to account for the alternation in terms of the external syntax of the clause (Kornfilt 2001). The observation that Genitive occurs in Complement clauses and Nominative in Adjunct clauses is too strong a description of facts. However, through further evidence and arguments, I will present an alternative account, one that does not resort to the external syntax of these clauses in terms of being selected or not selected. I will argue that the GA/NO is not an “optional” process, and that there is an interpretational difference between genitive-subject and Nominative-subject constructions. This, I will argue, is due to different syntactic structures in line with the claim in Kuno (1976), and the analyses in Miyagawa (1993) and Ochi (2001).
2.2. Clausal Agreement is not a subject case licenser

In this section, I will present data from Turkic subordinate clauses (Data with T=Turkish; see Appendix for Tuvan (TV), Kazakh (K) and Uzbek (U)) to question and discuss the role of agreement and tense as a case licenser in Turkic languages. The crucial data refers to the subordinate clauses that are identical in terms of verbal inflectional morphology yet, they differ minimally in terms of case on the subject. We observe Genitive in complement clauses and in some instances of adjunct clauses, and Nominative regularly on adjunct clauses. In previous work on the topic, it has been argued that Genitive and Nominative case on the subjects are licensed by phi feature: nominal agreement licenses Genitive and verbal agreement licenses Nominative (Kornfilt 1985, 2001, George and Kornfilt 1981, Hwang 1997). I will present evidence from a variety of Turkic languages suggesting that, contrary to this claim, both Subject-Nom and Subject-Gen clauses bear nominal agreement. Specifically, I will argue that sentential interrogative complements in Turkic are in fact nominal complements modified by relative clauses, and (following Lees 1965 and subsequent work in Turkish linguistics, particularly, Kennelly 1996) that declarative sentential complements are Complex NPs (i.e. complements of an optionally overt nominal head). I will argue that the null or lexical nominal head licenses Genitive case on the subject of RCs by the covert phrasal movement of the Genitive-subject to Spec DP (or Kase P). With regard to VP-adjunct clauses, I will try to argue that they are CPs with lexically filled heads; I will claim that Nominative case in those environments is licensed neither by Tense or Agreement features but via Finiteness feature of Modality.

Although the observation that Turkish complement clauses might be RCs (Hankamer 1972), or even CNPs in some instances is not a new one (cf. Lees 1965, Underhill 1972, Sezer
1991, 1994/98, 1994, Kennelly 1996, Özoğ 1998, Kornfilt 2001, among others), these structures have been analyzed by analogy to possessive phrases with phi features *internal to the clause* responsible for case licensing on the subject. My analysis departs from this tradition in proposing different internal structures to these clauses independent of their external syntax, and accounting for case licensing independently of *phi features*.

### 2.2.1. Nominative vs. Genitive Subject: Turkish Data and the proposed analysis

Data in (2a&b, repeated here as 3&4) illustrate Turkish subordinate clauses that have *identical* surface form, except for the case on the subject. (3) is a complement clause and its subject bears Genitive Case; the one in (4) is an adjunct clause and its subject bears Nominative Case. The verbal predicate in both clauses is identical in form, and it bears the perfect aspect morpheme -DIK, and the nominal agreement morpheme.

(3T) Ben-Ø [Ali-nincam-ı ktr-diğ-ı zaman]ı bil-iyor-du-m
     I-Nom -GEN glass-acc break-DIK-agr time-Acc know-prog-past-1sg
     ‘I knew when Ali broke the glass’

[S-GEN Obj-acc V-DIK-AGR Noun]acc... Complement Clause

     I-Nom -NOM/*-GENglass-acc break-DIK-agr time truth-acc know-prog-past-1sg
     ‘I knew the truth when Ali broke the glass’

[S-NOM/*GEN Obj-acc V-DIK-AGR Noun? ] Adjunct Clause

The structure in (3) is argued to be analogous to Relative Clauses in form in Hankamer (1972). I will present two pieces of evidence to argue that the structure in (3) is indeed a relative
clause, not by analogy, but in terms of structure.

The first piece of evidence comes from a coordination test: (3) can be coordinated by other Relative Clauses (5):

(5) **Coordination Test**
Ben-Ø [Ali-nin git-ti-ği zaman]l ve Kürşat-in bin-diği-i uçağ-I
I-Nom -GEN go-DIK-agr_{N} time-Acc and -GEN get on-DIK-agr_{N} plane-acc
bil-iyor-du-m.
know-prog-past-1sg
‘I knew the time when Ali went and the plane that Kürşat got on’

The second piece of evidence comes from the presence of a gap in (5):

(6) Relative Clauses bear gaps
* Ben-Ø [Ali-nin dün git-tiği zaman]l bil-iyor-du-m
I-Nom -Gen yesterday go-DIK-agr_{N} time-Acc know-prog-past-1sg
‘*I know when Ali left yesterday’

The two tests above allow us to argue for (7):

(7) **Interrogative subordinate clauses in Turkish are Relative Clauses.**

Identification of the internal structure of (4) is crucially dependent on the nature of the word zaman (*time, when*). It is clearly a noun, the head noun of the Relative Clause in (3) and means ‘time’. In (4), it is not a noun as clearly seen from its meaning, i.e. ‘when’. Furthermore, the head noun time in (3) can be modified but not the ‘when’ in (4):

(3T’) Ben-Ø [Ali-nin cam-I kır-diği-I o zaman]l bil-iyor-du-m
I-Nom -GEN glass-acc break-perf-agr_{N} that time-Acc know-prog-past-1sg
‘I knew that time when Ali broke the glass’

Another supporting piece of evidence is that zaman / when is a Complementizer in Nominative-Subject constructions, and a head noun zaman / time in Genitive-Subject constructions. This is clearly attested in another Turkic language, i.e. Tuvan. Tuvan employs different lexical items for the noun ‘time’, waqit and the Comp ‘when’, üye:

(3TV)  Men- Ø [Ali-niN ket-ip qal-gan ] waqit-in]-ni    bil-ip ture-di-m
  I- NOM    -GEN go-conv aux-perf time-agr-acc know-conv prog-past-1sg
  ‘I knew when Ali went’
  ..... [S-GEN     V-V-Perf ] Noun-agr]acc…….. (Aygen in prep.)

(4TV) Men- Ø[Ali- Ø        ket-ip qal-gan üye-de] shin-ni    bil-ip türe-di-m
  I-NOM - NOM go-conv aux-perf time-adv truth-acc know-conv- prog-past-1sg
  ‘I knew truth when Ali got married’
  ..... [S-NOM     V-V-Perf     Comp] …….. (Aygen in prep.)

The tests and supportive evidence above allow us to argue for (8):

(8) Nominative-subject subordinate clauses in Turkish are CPs.

Since typical factive complement clauses in Turkish bear the same subject case and predicate morphology a question is in order here: Are all complement clauses with the verbal complex identical to the verbal complex of (5) in being RCs in Turkish?

A typical factive complement clause in Turkish has a verbal predicate that is identical to
that of a non-subject targeting RC in (5), i.e. (DIK +AGR) on the verb, and Genitive case on the subject.

(9) *Relative Clause*

Ben-Ø [Kürşat-ı Nafe-yi gör-düğ-ü zaman]ı bil-yor-um  
I-Nom -GEN -acc see-DIK-agr$_N$ time-Acc know-prog-1sg  
‘I knew the time when Kürşat saw Nafe’

(10) *Complement Clause*

Ben- Ø Kürşat-ı Nafe-yi gör-düğ-ün]ü bil-yor-um  
I-Nom -GEN -acc see-DIK-agr$_N$-Acc know-prog-1sg  
‘I know that Kürşat saw Nafe’

These factive complement clauses, such as the one in (10), allow a head noun “the fact/the claim” to be inserted into the head position (Lees 1965, Sezer 1991, Kennely 1996, Özsoy 1998):

(11) *Head Insertion Test*

I-Nom -GEN -acc see-DIK-agr$_N$ fact-3agr-acc/claim-3agr-acc know-prog-1sg  
‘I know the fact/the claim that Kürşat saw Nafe’

Furthermore, (10) allows objects in the subordinate clause indicating that there is no gap that would be expected in RCs. Based on these two pieces of evidence, we can confirm the insight in Lees (1965) and hypothesize the following:
Declarative subordinate clauses in Turkish are noun complements = Complex NPs.

In particular, I propose that the structure of interrogative complements is that of an RC (13a), and the structure of declarative complement clause is that of a noun complement (13b):

(13) a.  Relative Clause

Ben-Ø [Kürşat-ın Nafe-yi gör-düğ-ü zaman]ı bil-iyor-um
I-Nom -GEN -acc see-DIK-agr -time-Acc know-prog-1sg
‘I knew the time when Kürşat saw Nafe’

[dp[cp,Sbj-GENOBJ t ] V+DIK+AGRₙ NPₜ ]

b.  Complement Clause

Ben- Ø Kürşat-ın Nafe-yi gör-düğ-ünjü bil-iyor-um
I-Nom -GEN -acc see-DIK-agr-acc know-prog-1sg
‘I know that Kürşat saw Nafe’

[dp[cp,Sbj-GENOBJ V+DIK+AGRₙ ] Ø]

To determine the source of genitive licensing, we need to ask whether the external syntax of these clauses, i.e. whether their being selected as complements, has anything to do with genitive licensing. Are Complement Clauses (declarative and interrogative subordinate clauses of the two types above) the only environments where we may observe Genitive on the subject? The following subsection argues that the answer to this question is negative, and that neither the external syntactic position nor the presence of an internal phi feature (Agreement) is responsible for genitive on the subject.

2.2.2.  Genitive in Adjunct Clauses
Adjunct clauses in Turkic languages regularly bear Nominative subjects, a generalization made on Turkish by Underhill (1972) and Hankamer (1972 and subsequent work on Turkish). In data (15) below, however, we observe an adjunct clause with Genitive subject. Compare (14) and (15), where the morphological form of the verbal predicates within the adjunct clauses is identical to that of RCs and CNPs; the case on the subject is different, and the adjuncts have different meanings.

(14) [Kürşat -Ø duy-duğ-un-a göre ] herkes duy-acak.
    -NOM hear-DIK-agrₙ,dat since everybody hear-fut

‘Given that/since Kürşat heard, everybody will hear (it)’

    -GEN hear-DIK-agrₙ,Dat according to everybody hear-fut-rep

‘According to what Kürşat heard, everybody will hear (it)’

Generally göre ‘because/because of’ is analyzed as a postposition in both structures (Sezer 1994/98, Kornfilt 2001). Are both subordinate clauses (DIK clauses) in (14) and (15) selected by the postposition? If so, how come we do not have Genitive on the subject of (14) as predicted by analyses based on selection?

If our proposed analysis for the contrast in the one in (3) and (4) above is correct, (14) and (15) can be accounted for by the difference in the internal structure of these clauses rather than their external syntactic position. Since both (3) and (4) are adjuncts and do not contrast in their external syntactic position unlike the data in (3) and (4), these structures would provide ground for our proposal.
The prediction of the proposed analysis is that the Gen-subject construction does allow insertion of a head noun but the Nom-subject construction does not. The prediction is attested in (16) and (17) below:

(16) *Nom-subject Adjunct

\[
\begin{align*}
\text{Kürşat} & \quad \text{duy-duğ-u} \quad \text{şey-e} \quad \text{göre} \quad \text{herkes} \quad \text{duy-acak-Ø}.
\end{align*}
\]

\[-\text{NOM hear-DIK-agr} \_N \text{thing-dat since everybody hear-fut3sg}\]

(17) Gen-subject Adjunct

\[
\begin{align*}
[\text{pp} [\text{Kürşat} \text{-in} \text{duy-duğ-u} \text{şey-e} \text{göre} \text{herkes} \text{duy-acak-miş}\]
\end{align*}
\]

\[-\text{GEN hear-DIK-agr} \_N \text{thing-Dat based on everybody hear-fut-rep}\]

‘Based on/according to what Kürşat heard, everybody’

The Gen-subject adjunct allows a head noun şey ‘thing’ to be inserted, indicating that the outer layer is not a CP (17); whereas, the Nom-subject adjunct does not allow a noun in the head position, (16). Another test to distinguish the Nom vs. Gen subject adjuncts is the insertion of an object. A structure that allows object insertion would be a full clause, not a RC. The Nom-subject adjunct in (14), being a CP, is (in 18), and (15), being a free relative within a PP, is not (19) expected to allow an object:

(18) *Nom-subject Adjunct Clause

\[
\begin{align*}
\text{Kürşat} & \quad \text{-Ø haber-i anla-diğ-in-a göre} \quad \text{herkes} \quad \text{anla-yacak}.
\end{align*}
\]

\[-\text{NOM news-acc understand-DIK-agr} \_N \text{Dat since everybody understand-fut}\]

‘Because Kürşat understood the news everybody will’

(19) *Gen-subject Adjunct Clause

\[
\begin{align*}
\text{Kürşat} & \quad \text{in haber-i anla-diğ-in|a göre} \quad \text{üç kişi gel-ecek}.
\end{align*}
\]
Based on what Kürşat understood the news, three people are going to come.

The ungrammaticality of (19) is due to the attempt to fill the obligatory gap position in an RC, which is a Free Relative in this case. The empirical evidence above enables us to make the following claim:

(20) **göre**/based no, according to is a postposition in (18) and selects a null nominal head but **göre** is a Complementizer in (17).

The internal structure of the two types of adjunct clauses discussed is given below:

(21) a. The structure of the adjunct clause with Genitive subject (18,20,22) is a PP, with the structure below:

\[
\text{[PP [NP [S-Gen V] Ø] Prep]}
\]

b. \[
\text{PP}
\]

\[
\text{ei}
\]

\[
\text{NP} \quad \text{P}
\]

\[
\text{ei} \quad \text{göre} \text{ (based on)}
\]

\[
\text{CP} \quad \text{Ø-na} \text{ (what/time/place)}
\]

\[
\text{ei}
\]

Kürşat-in anladığ (...Kürşat understood)

(22) a. The structure of the adjunct clause with Nominative in (17,19,21) is a CP, with the structure below:

\[
\text{[CP S-Nom V Comp]}
\]
Kürşat anlamdığ-I-na ‘göre/ since’
‘Kürşat understood’

To conclude the discussion in this section, the internal structures of the subordinate clauses in Turkish identified so far are the following:

(23) *The internal structure of the subordinate clauses in Turkish*

(i) \[KP[CP Sbj-GEN OBJ t_1 V+DIK+AGR_n] NP[K] \] \textit{RC-Comp of a Verb}

(ii) \[NP[CP Sbj-GENOBJ V+DIK+AGR_n] \Ø] \textit{CNP-Comp of a Verb}

(iii) \[PP[NP[CP S-Gen V ] \Ø ] Prep ] \textit{RC-Comp of an Adjunct P}

(iv) \[CP Sbj-NOM OBJ V+DIK+AGR_n Comp] \textit{Adjunct CP}

2.2.3. *Turkish versus other Turkic languages and Dagur*

In this section, I will discuss data from other Turkic languages and another Altaic language to provide evidence that Genitive on the subject of Relative Clauses are not marked by Agr within the structure but by the head noun.

Consider Kazakh (3K), Tuvan (3TV) and Dagur (24) below: Agreement morphology is on the Head Noun:
In Turkish, the occurrence of Agr on the RC predicate is misleading in terms of attributing Gen licensing properties to a clause internal feature, i.e. Agr. In minimally different languages from the same language family, we observe that Agr occurs on the head noun. This provides evidence to the claim that clause internal Agr cannot be the Genitive licenser per se; it can only be a morphological representation of the nominal head that licenses Genitive.

In Dagur headless RCs, the agr \textit{min} on the head noun appears attached to the verbal complex just like in Turkish:

\begin{equation}
\text{[mini oo-yig] - min} \quad \text{arg}^\gamma. \quad (\text{from Hale 2002})
\end{equation}
1sgGen drink-Imperf-1sg wine
‘What I drank is wine’

Agreement appears attached to the null or overt nominal head in Dagur, Kazakh and Tuvan; to the verbal complex in Turkish.

Note that in Dagur, the Perfective suffix is observed in root clauses as well as subordinate clauses:

(26) [tere yau-sen-ii □ii uji-sen- □ii yee.(Martin 1961:44 cit.in Hale 2002)
     3sgNom go-Perf-acc  2sNom see-Perf-2s Q
     ‘Did you see him leave?’

To conclude, the clause internal nominal agreement can be an overt realization of the function of the head noun, and is clearly an indication of the nominal nature of the structure embedded under a head. However, it is not the actual licenser per se within the clause. Furthermore, other (Altaic) languages Dagur, Tuvan and Kazakh where agreement appears on the head noun rather than the predicate, are all accounted for in an analysis of genitive licensing by a nominal feature, crucially external to the clause.

2.2.4. Genitive and the Existential Complements

In this section, I will present another construction where we can test possible accounts of Genitive case licensing in Turkish: existential complement clauses. The predicate of the embedded version of (30) in (31) is identical to those observed in NGC constructions:

(27) Bahçe-de kedi-∅ var
     Garden-loc cat-NOM ex subs
     ‘There is a cat in the garden’

Recall that Kornfilt (2001) presents an account for contrastive constructions such as (3) and (4) above where nominal Agr and Nominative case co-occur by the following claim (following Raposo (1987) and adopting Pesetsky (1982): “Agr can be licensed as a case marker either via co-indexation with an operator or via gamma-marking by a theta governor.” To put it briefly, according to Kornfilt (2001), Genitive is licensed by Agreement that either occurs in a complement position or in a clause with an operator.

Note that (28) satisfies both of these conditions. It is an operator structure (existential operator) at a complement position. Kornfilt (2001) predicts genitive on the subject, however, case on the subject of (28) is not Genitive.

Hiraiwa (2001), who argues that an adnominal amalgamate on the predicate is a manifestation of C-T-V, and V at C licenses Genitive case universally by virtue of phi features on C, without an external nominal layer, also predicts a genitive case in (28) because the predicate “adnominal amalgamate” is identical to those in RCs where genitive is observed on the subject. However, the predicate in the embedded existential has the “adnominal amalgamate C-T-V,” and it is expected to license Genitive case on the subject without an external nominal head, or D layer. His prediction is not attested, however.

My proposed analysis following Miyagawa (1993), however, accounts for the Nominative Case on the subject, and predicts the unavailability of inserting a head noun in constructions where the subject is in the Nominative. Consider (29), which shows the unavailability of a head noun in Nominative subject constructions (29a) and the availability of a head noun insertion in Genitive subject construction (29b):
   -Nom garden-loc cat-NOM be-asp-agr news/fact -agr-Acc tell-past
   intended reading: ‘Kürşat told the news/fact that there is a cat in the garden’

   -NOM garden-loc cat-GEN be-asp-agr news/fact-agr-acc tell-past
   ‘Kürşat told that the cat is in the garden= it is the cat that is in the garden’

   In (29b), the structure is not an existential, but a noun complement. The existential is lexical, just like the verb ‘exist’ in English, rather than the syntactic existential, i.e. [expletive + copula] ‘there is’ construction.

   The contrast in (29) is expected by an analysis where Genitive is licensed by an external nominal head.

   So far, I have argued that Agreement is not a case licenser in Turkish, Tuvan, Kazakh and Dagur. I have also accounted for the obligatory lack of a nominal layer out of existential complements, due to the definiteness/specificity effect of case on Turkish arguments. In the next section, I will discuss the syntactic mechanism involved in genitive case-licensing.

2.2.5 The syntactic mechanism involved in genitive case-licensing

   There are two approaches to this topic.

(30) Previous analyses

   (i) The Raising analysis:
There is an interpretational difference between a Genitive subject and a Nominative subject in GA/NO constructions. Genitive is argued to be licensed by a covert phrasal movement of the subject to an external D in Miyagawa (1993) and by feature movement or overt phrasal movement in Ochi (2001).

(ii) \( V-T-C \) analysis:
The predicate amalgamate formed by \( V-T-C \) licenses Genitive case cross-linguistically (Hiraiwa 2001). There is no external nominal head that licenses the Genitive.

I will argue that the raising analysis of Miyagawa (1993) is supported by facts from Turkish, Tuvan, Kazak, and Dagur, and that the syntactic mechanism that licenses Genitive in Turkish is the covert phrasal movement of the genitive phrase to Spec DP as in Miyagawa (1993).

2.2.6. The ECM/LF Raising Analysis (Miyagawa 1993, Ochi 2001)

Miyagawa (1993) argues that the Genitive case feature is checked by an external nominal head D at LF:

\[
\begin{align*}
(31) & \quad \text{DP} \\
& \quad \text{ei} \\
& \quad \text{DP}_{\text{subj}} [\text{GEN}] \text{ei} \\
& \quad \text{NP} \quad \text{D[GEN]} \\
& \quad \text{ei} \\
& \quad \text{TP} \quad \text{N} \\
& \quad \text{ei} \\
& \quad t_{\text{subj}} \quad T'
\end{align*}
\]
The crucial observation supporting this proposal is the availability of different interpretations and syntactic structures for GA/NO constructions. Miyagawa (1993) argues that structure with a Nominative subject has only the reading in which the head noun ‘probability’ takes scope over the Nominative subject ‘ruby or pearl’. The one with the Genitive subject has the additional reading where the subject takes scope over ‘probability’:

(32) [[[Rubii-ka shinju]-ga yasuku-naru] kanousei]-ga 50% izyoo da.
    Ruby-or pearl-NOM cheap-become probability-nom over is
    i. ‘The probability that rubies or pearls become cheap is over 50%’
    ii. ‘The probability that rubies become cheap or the probability that pearls become cheap is over 50%.’
    Probability >[ruby or pearl]; *[ruby or pearl] > probability

(33) [[[Rubii-ka shinju]-no yasuku-naru] kanousei]-ga 50% izyoo da.
    Ruby-or pearl-GEN cheap-become probability-nom over is
    i. ‘The probability that rubies or pearls become cheap is over 50%’
    ii. ‘The probability that rubies become cheap or the probability that pearls become cheap is 50%.’
    Probability >[ruby or pearl]; [ruby or pearl] > probability

According to Miyagawa (1993), the Nominative example in (35) is unambiguous because the Nominative subject does not raise out of the sentential clause, and is within the scope of the head noun. The Genitive clause, however, allows scope ambiguity because the Genitive subject raises into the Spec of DP at some point in the derivation. Miyagawa (1993) presents an argument showing that the movement takes place in covert syntax based on examples such as
(37) and (38), in which other elements of the same sentential gapless clause occur to the left of the Genitive subject, yet, the ambiguity is retained:

(34)  [Kotoshi rubii-ka shinju-no yasuku-naru] kanousei  
      this year ruby-or pearl-GEN cheap-become probability  
  i.  ‘the probability that pearls become cheap this year’  
  ii. The probability that rubies become cheap this year or the probability that pearls become cheap this year.  

Probability > [ruby or pearl];  [ruby or pearl] > probability  
Modifiers like 'this year’ must bear Genitive when they occur within a projection of a noun:

(35)  a.  kotoshi-no kougi  
      this year-Gen lecture  
  b.  *kotoshi kougi  
      this year lecture

(34)-(35) show that ‘this year’ in (34) is inside the clause. The Genitive subject must also be within the sentential clause in overt syntax. Miyagawa (1993) argues that the Genitive subject must be pied-piped out of the sentential clause to the spec of DP in covert syntax.

2.2.7. Ochi (2001): feature movement or overt phrasal movement

Ochi (2001) builds his analysis on the raising analysis of Miyagawa (1993) for GA/NO. His analysis is crucially different in terms of the nature of movement he assumes. He argues that non-ambiguity in structures like (32) above is due to the movement of formal features of the genitive subject to Spec DP. Feature movement does not affect scope. On the other hand, ambiguity of (33) results from the availability of overt phrasal movement, i.e. pied-piping of the
Genitive subject to Spec DP for PF reasons and a new scope configuration is created.

Basic arguments in Ochi’s (2001) on the nature of movement in genitive subject constructions are the following. We must recall that Miyagawa (1993) argues that when the Genitive subject is preceded by another element of the sentential clause, the example is not ambiguous. The Genitive phrase cannot take scope over the head noun if it is not at the edge of the clause (34). Ochi (2001) notes an exception where the intervening phrase is a Genitive one, which is also noted in Miyagawa (1993):

(36)  [John –no [tenisu-ka sakkaa]-no dekiru] riyuu
     John-GEN tennis-or soccer-GEN can reason
     i. ‘the reason that John can play tennis or soccer’
     ii. ‘the reason that John can play tennis or the reason that John can play soccer’
     reason > [tennis or soccer]; [tennis or soccer] > reason

The ambiguity of (37) is accounted for by an optionality in the nature of raising (Ochi 2001):

(37)  [dp John-GEN, [d tennis or soccer-GEN, [np t_i t_j can] reason] D]] (Overt raising)
(38)  [[dp [ip [John-GEN] [tennis or soccer-GEN] can ] reason ] (feature raising)

z---m
z-- -----m

The structure in (37) is an overt pied-piping movement structure that creates a new scope configuration. The structure in (38), however, shows a feature movement where no new scope configuration is created.

An evidence in Ochi (2001) showing that feature movement does not affect scope
relations is given below:

(39)  *Feature raising cannot license Genitive*

\[
\text{kinoo John-no unten-shite-ita] kuruma yesterday John-gen drive-doing-was car}
\]

i. ‘the car that John was driving yesterday’ (John=agent)

ii. *‘John’s car that he was driving yesterday’ (John=agent + possessor)

In (42) above, the genitive subject is clearly within the clause in overt syntax as was shown in Miyagawa’s (1993) argument illustrated by data (34) and (36) above. As is clearly shown in Ochi’s (2001) argument illustrated by data (36) above, Genitive need not be at the edge of the clause to be licensed. The licensing mechanism proposed by Ochi (2001) is *feature movement*.

In the section below, I will provide evidence from Turkish Genitive case licensing in clausal structures to argue that *covert phrasal movement* is a necessary part of grammar, as proposed in Miyagawa (1993). The need for covert phrasal movement is also supported by Pesetsky’s (2000) arguments based on *wh*-movement. As an approach to the GA/NO Conversion, Miyagawa (1993) and Ochi (2001) clearly indicate that Genitive is not licensed within the clause, despite the differences in the syntactic mechanisms they propose.

2.2.8. Genitive Case Licensing in Turkish: Evidence for Covert Phrasal Movement

In this section, I will discuss Genitive case licensing mechanism in Turkish, and provide arguments that support *covert phrasal moving* rather than *feature movement*. Consider the Turkish data corresponding to Miyagawa’s (1993) data in (34) above:

(40)  [[Pırlanta ya da inci]nin ucuzlama ihtimal-i ] % stflr/.

Diamond or pearl-GEN get cheaper probability-3agr 0%
The Genitive subject construction is ambiguous in terms of two patterns of the relative scope relation between the epistemic noun ‘probability’ and the Genitive subject, i.e. the logical disjunct within the Genitive subject. A corresponding Nominative subject construction (a root clause) is not ambiguous, as may be observed in (41) below:

(41)  [ Türkta ya da inci]Ø yüz -de sifir ihtimal -le ucuzla - yacak.
Diamond or pearl-NOM hundred-loc zero probability-with become cheaper- will.
‘Rubies or pearls will become cheap with the probability of zero %’ (i.e. neither will become cheaper)
Probability >[ruby or pearl]; *[ruby or pearl] > probability

There is an ambiguity in the Genitive subject construction, whereas, the Nominative subject construction does not allow the reading where the subject has wider scope and allows only inverse scope. Note that in Japanese, the position of the Genitive subject is shown to be in overt syntax in structures with an adverb at the clause initial position, i.e. edge, position in Miyagawa (1993) (34). In (42) below, I adopt Miyagawa’s (1993) test in Turkish:

(42)  [Bugünlerde [Türkta ya da inci]nin ucuzlama ihtimal -i ]% 0.
Nowadays diamond or pearl-GEN get cheaper probability-3agr 0 %
i.  ‘The probability that rubies or pearls’ become cheap nowadays is over 0%’ (i.e. neither will become cheaper)
ii. ‘The probability that rubies’ become cheap nowadays or the probability that pearls’ become cheap nowadays is over 0 %. (i.e. either rubies or pearls won’t become cheaper)
Probability >[ruby or pearl]; [ruby or pearl] > probability

The ambiguity is retained in Turkish despite the presence of an adverb preceding the genitive subject. It is crucial to note that the adverb is interpreted as part of the lower, not the higher clause, and as such, is located within the lower clause. Embedding this clause within a higher clause makes this fact clear:

(43) Ercan [bugünlerde [ptrlanta ya da inci]nin ucuzlama] ihtimal-]nin Ercan nowadays diamond or pearl-GEN get cheaper probability-3sg -Gen % 0 ol-duğ-u]nu sőyle-di. 0 % be-Asp-3agr-N-Acc tell-Past.

‘Ercan said that
i. ‘The probability that rubies or pearls’ become cheap nowadays is over 0%’. (i.e. neither will become cheaper)
ii. ‘The probability that rubies’ become cheap nowadays or the probability that pearls’ become cheap nowadays is over 0 %.’ (i.e. either rubies or pearls won’t become cheaper)
Probability >[ruby or pearl]; [ruby or pearl] > probability

I will analyze the ambiguity in (42) (and (43)) by employing covert phrasal movement since feature movement does not affect scope (Ochi 2001). To account for the two readings in (42), we need two LF configurations, i.e. two syntactic structures. Covert phrasal movement is the only mechanism that allows scopal difference. There are two possible accounts for the
ambiguity in (42) and (43). One, is that the Genitive subject moves to Spec DP in both interpretations by covert phrasal movement and Genitive is licensed. What differs is the LF position of the epistemic noun that behaves as a quantifier. In line with Fox (1995, and specifically 2000), quantifiers move only locally when there is no other quantificational element to scope over for interpretational purposes. For the narrow scope reading of ‘probability’ the syntactic configuration with the wider scope of the two other scopal element Genitive subject with the disjoint ‘or’ and the quantificational adverb does not necessitate the ‘probability’ to raise non-locally. To yield the wide scope reading, however, ‘probability’ needs to move non-locally to a position; hence the ambiguity.

Another possible account suggested by Huang (p.c.) is to adopt both feature movement and covert phrasal movement of the genitive subject. Feature movement would delete the uninterpretable case feature on D, and license Genitive and to yield narrow scope of the genitive subject; covert phrasal movement of the genitive subject, on the other hand, would yield a wide scope reading of the subject, assuming that the epistemic/quantificational noun ‘probability’ undergoes QR to a position lower than the DP.

I prefer the former to the latter on two grounds: First, we have a single syntactic mechanism to account for Genitive licensing, i.e. covert phrasal movement, in the former, whereas we employ two different syntactic mechanisms for Genitive licensing, i.e. both covert phrasal movement and feature movement in the latter.

Secondly, in either account, we need to propose a position for the epistemic/quantificational noun ‘probability’ to undergo QR as well. In the former account where we adopt covert phrasal movement of the genitive subject, ‘probability’ raises and adjoins to DP to get wide scope over the subject; also, it must move locally to allow the wider scope of
the subject. In the latter account, the one where we adopt two mechanisms for Genitive case licensing, we need to propose the same two positions for ‘probability’ to undergo QR as well.

The position of the locally QR-ed ‘probability’ to allow a wide scope reading to the subject needs to be determined. Note that it is within a noun complement with the structure below in overt syntax:

\[
\begin{array}{c}
\text{DP} \\
\text{ei} \\
\text{CP} \\
\text{probability} \\
\text{IP} \\
\text{vP} \\
\text{fh}
\end{array}
\]

At LF, two available position for QR of ‘probability’ is an adjunction to NP (45a) or DP (45b).
(45)  

a.  

\[
\begin{align*}
&\text{DP} \\
&\quad \text{ru} \\
&\quad \text{DP} \quad \text{probability}_i \\
&\quad \text{ru} \\
&\quad \text{Gen-Sbj}_i \quad D' \\
&\quad \text{ei} \\
&\quad \text{NP} \quad D \\
&\quad \text{ei} \\
&\quad \text{CP} \quad t_j \\
&\quad \text{ei} \\
&\quad \text{IP} \\
&\quad \text{ei} \\
&\quad t_i \quad \text{vP} \\
&\quad \text{fh} \\
\end{align*}
\]

b.  

\[
\begin{align*}
&\text{DP} \\
&\quad \text{ru} \\
&\quad \text{Gen-Sbj}_i \quad D' \\
&\quad \text{ru} \\
&\quad \text{NP} \quad D \\
&\quad \text{ei} \\
&\quad \text{NP} \quad \text{probability}_i \\
&\quad \text{ei} \\
&\quad \text{CP} \quad t_j \\
\end{align*}
\]
There is no difference between the two accounts, i.e. covert phrasal movement account and either feature movement or covert phrasal movement account of Genitive case-licensing in terms of the QR of ‘probability’. I propose that a single mechanism for Genitive case licensing makes the former account simpler than the latter, and will employ covert phrasal movement as the genitive case-licensing mechanism in Turkish.

The availability of covert phrasal movement in Turkish is supported by an independent argument based on WCO effect (Saito & Hoji 1983). The availability of a grammatical bound-variable reading in (46bi) is accountable by the covert phrasal movement of the quantifier to a position higher than the pro. In (46ai), however, the covert phrasal movement of the quantifier creates a WCO effect, and does not allow the bound-variable reading of the pro.

(46) Variable-Binding
a. pro₁ anne-si₁ [her adam₁-in şehir-de ol-duğ-u]-nu bil-iyor-du.
   mother-his every man-GEN town-in be-Perf-agrₙ-acc know-Prog-Past
   i. *His₁ mother knew the rumor that every man₁ was in town’.(bound-variable reading)
   ii. His₁ mother knew the rumor that every man₁ was in town’

b. pro₁ anne-si₁-ni tan-yan biri₁ herkes-i sever.
   Mother-his know someone everybody-Acc loves
i. Someone$_j$ who knows his$_j$ mother loves everyone$_j$ (bound-variable reading=anyone who loves his mother loves everyone)

ii. Someone$_j$ who knows his$_j$ mother loves everyone

Quantificational elements have been shown to intervene between the in situ material and the clause at which the wh-word takes scope (Beck 1996). The interaction of quantifier and wh syntax (May 1985, Miyagawa 2000) is instructive in terms of showing what blocks a covert phrasal movement. Consider the data below (taken from Aygen 1999b, adapted to Turkish from Miyagawa 2000):

(47) **Kim** her şey-i gördü?
    **Who** everything-acc saw
    ‘Who saw everything?’
    (i) [who $\exists \forall$] Single answer = There is x: x saw $\forall$ instance of y

(48) Herkes ne gördü?
    Everybody **what** saw
    ‘What did everybody see?’
    (ii) [$\forall > \text{who}$] Pair List answer = For every x, and every y, there is an instance of y that x saw
    (iii) [who $\exists \forall$] Single answer = There is x: x saw everything ($\forall$ instance of y)

The ambiguity of (51) can be accounted for by the covert phrasal movement of the wh-element in both readings accompanied by the local or non-local movement of the universal quantifier depending on the intended interpretation. The two possible LF structures given in (52a&b) below:

(49) a. wh$_j$ $\ldots \forall, \ldots$ t$_i$ $\ldots$ tj$_i$ $\ldots$ Single answer
b. $\forall j \ldots$ wh$_i$ ... $t_i$ ... $t_j$ .... Pair List answers
Another piece of evidence supporting covert-phrasal movement blocked by a scopal element is the intervention effect of yalızca ‘only’ (from Aygen 1999b):

(50) a.*Yalızca Kürşat ne-yi oku-muş?
Only Kürşat what-acc read-Reportive
‘What did only Kürşat read?’

b. Yalızca Kürşat kitab-i oku-muş
Only Kürşat book-ACC read-Reportive
‘Only Kürşat read the book’

(51) Ne-yi yalızca Kürşat oku-muş?
What-acc only Kürşat read-Reportive
‘What did only Kürşat read?’

In (50a) the quantifier “only” seems to block a possible covert wh-phrase movement to the clause periphery, hence the ungrammaticality. When the structure is not a question, the structure is perfectly grammatical as may be observed in (50b). In (51), however, scrambling the wh-word in overt syntax makes the structure grammatical.

It is clear that ‘only’ needs to c-command the constituent it focuses at LF. Consider the two sentences below where the “only” does not block the covert phrasal movement of the wh-phrase when it is under its c-command in their base positions (52):

(52) Kürşat yalızca ne-yi oku-muş?
Kürsat only what-ACC read-Reportive

‘Only what did Kürşat read?’

(53) *Kürşat yalnızca dün okumuş ne-yi?
Kürsat only yesterday read-Reportive what-acc

Intended reading: ‘What did Kürşat read only yesterday?’

I will accept all of the above as evidence showing that there is covert phrasal movement as an available syntactic mechanism in Turkish syntax. Therefore, the same mechanism can be employed to license Genitive case in structures like (4a) above. The difference in Japanese and Turkish boils down to the mechanism that licenses Genitive. If we accept that feature movement does not change scope relations, we are required to keep covert phrasal movement in our grammar.

2.2.9 Second Approach to GA/NO Conversion: V at C

In this subsection, I will briefly comment on Hiraiwa’s (2001) analysis of GA/No, which takes a radically different approach than the previous analysis, and I will question and argue against the proposal that V is at C in Turkish (Kural 1993, Aygen 2000a,b)

2.2.9.1 Hiraiwa (2001): V at C Corresponds to Genitive Case on Subject

Hiraiwa (2001) claims that “Genitive case can be checked by the phi-features of the C-T-V amalgamate formed via AGREE, independently of D.” GA/NO is defined as “a construction in which the nominative-marked subject optionally alternates with the Genitive-marked subject in relative clauses and nominal complements” (Hiraiwa 2001:68).

Hiraiwa (2001) makes the following claims for Nominative-Genitive Conversion:
(54) *Hiraiwa’s (2001) Proposal*

- **NGC is strictly prohibited in matrix clauses.**
- **A(ccusative)G(enitive)C(onversion) is universally blocked because \(vP\) is a phase too (Uriagereka 1999, Chomsky 1999, 2000): Acc obj never alternates with Gen object in NGC.**
- **NGC is limited to relative clauses and nominal constructions.**
- **C specifies/assigns the structural case on DP as Genitive.**
- **Accusative case is unavailable in NGC: Transitivity Restriction.**
- **The syntactic C+T+V head amalgamate formed via AGREE corresponds to the special verb inflection *predicate adnominal form (P-A form)* … this is part of the universal principle in relativization.**

The claims that there is no matrix NGC (54a), and that Accusative object never alternates with Genitive object in NGC (54b) are not valid cross-linguistically. Russian is a language that allows instances of matrix NGC and AGC as discussed in Pesetsky (1982). (54c) above is correct in so far as Genitive constructions are concerned. Nominative constructions are not “nominal” in terms of having an outer nominal layer. It is, in fact, the insight brought by Miyagawa (1993)’s analysis that predicts that these constructions should be limited to nominal constructions and relative clauses, constructions whose heads are nominal.

The unavailability of Accusative Case in Genitive constructions given in (54e) is not applicable to Turkish as noted in Hiraiwa (2001) (data (2a) above). As for (54d,f), Hiraiwa (2001) proposes a correlation between C+T+V amalgamate and genitive case-licensing.

The first argument that leads us to question (54d,f) in Turkish is if every adnominal form triggers Genitive case, how come we observe non-genitive case in structures with the same adnominal form? In Turkish the same adnominal form occurs with Nominative subjects as may
be observed in (55a) and (55b) below.

(55) a. Ben-Ø [Ali-nin cam-ı kır -diğ -İn ]-ı bil-iyor-du-m
  I-Nom -GEN glass-acc break-Asp-3sg -acc know-prog-past-1sg
  ‘I knew when Ali broke the glass’

  -NOM garden-loc cat-NOM be-Asp-3sg-acc tell-past
  ‘Kürşat told that there is a cat in the garden’

Both structures in (55) are complement clauses and they bear the same adnominal form on their predicates, yet the subject in (55b) is not Genitive. The embedded existential in (55b) is the complement of the higher verb “tell”, ie. in a lexically governed position just like any other complement clause.

2.2.9.2. Semantic Properties of Genitive

In this section, I will present data from Russian (based on Pesetsky 1982, Pesetsky et al. 1999) and Turkish to argue that Genitive has a special semantic property in certain syntactic and semantic environments. Russian Genitive behaves like a quantifier under negation, and Turkish Genitive has a non-specific reading within generic structures; elsewhere, it is interpreted as a definite/specific. A prediction of this analysis is attested in embedded existentials in Turkish where Genitive cannot occur.

2.2.9.2.1. Russian Genitive under Negation and Turkish Genitive in Turkish

Genitive in Russian exhibits both GEN/NOM and GEN/ACC alternation in matrix clauses. There are special semantics to this alternation that takes place only within negative structures. Following is the data from Pesetsky (1982):
(56)  *Russian subject GEN/NOM*  (data 55 of Pesetsky 1982)
   a. NEG showed up students-NOM = the students didn’t show up
   b. NEG showed up students-GEN  = no students showed up

(57)  *Russian object GEN/ACC*  (data 56 of Pesetsky 1982)
   a. I NEG received letters-ACC = I didn’t receive the letters
   b. I NEG received letters-GEN  = I didn’t receive any letters

As is clearly seen from the English gloss, the occurrence of Genitive under negation makes a difference in the interpretation. Pesetsky (1982, 1999) shows that in Russian, Genitive under Negation is a quantifier-variable construction and obligatorily undergoes Quantifier Raising, unlike a Nominative under Negation, that is an NP. In Russian genitive under Negation is obligatorily indefinite, and the quantifier is an existential one.

Genitive seems to have a specific semantic property in Russian and Turkish. In Russian, it behaves like an indefinite quantifier under negation. In Turkish, on the contrary, it has a specificity denoting property, as has been claimed for all instances of morphological case in Turkish in Aygen (1999a). In the next section, I will explore syntactic domains where the Turkish Genitive behaves as an indefinite.

### 2.2.9.2.2. Indefinite Genitive in Generics in Turkish

The definite/specific nature of Genitive arguments in Turkish was observed in the late ‘70s. Sezer (1972), Knecht (1979, 1985), Hankamer and Knecht (1976), Nilsson (1979,1985, 1991) discuss the Genitives in various syntactic contexts. Nilsson (1979, 1985, 1991) argues that Gen arguments are independent in *specificity and definiteness*:
The specificity denoted by Case in Turkish has been attributed to the existence of Case in Turkish. As such, they are predicted not to occur in existentials, which is the case in Turkish. Considering the behavior of Genitive under Negation in Russian, I would like to see if there is an environment where Gen is obligatorily interpreted as indefinite in Turkish.

Negative is not such an environment in Turkish:

- NOM students-pl-GEN come-NEG-asp-agr-acc tell-past
  ‘Kürşat told that the students did not come’

Generic contexts are such environments where the specificity denoted by genitive seems to disappear:

(60) Generic context
    Öğrenci-nin iste-diğ-i tembellik yapmak-tır.
    Student-GEN want-asp-agr laziness do-INF-Generic/Epistemic marker
    ‘It is laziness that any student/a student wants’=’What a/any student wants is laziness’

The Genitive-subject in (60) has a non-specific reading whereas it retains specificity within a non-generic context in (61):

(61) Non-generic context
    Öğrenci-nin istediği yarın okula gel-me-mek
Student-GEN want-asp-agr tomorrow school-Dat go-NEG-INF-
‘What the student wants is not to come to school tomorrow’

In (62) below, the Genitive subject is not in a sentence initial position and it still has a non-specific/generic reading within a generic context:

(62)  
Generic context

Öğretmen  [öğrenci-nin kolay eğitim iste-diğ-in]ı    bil-ir  
Teacher-Nom student-Gen easy education want-asp-agr-Acc know-Present
‘Teachers know that a/any student wants an easy education’

Data (60-62) above suggest that unless there is a generic operator in the structure, Gen-NP is definite-specific in Turkish.

2.2.9.2.3.  Genitive and Relative Clauses in Turkish

Genitive occurs in a type of Relative Clauses in Turkish, that is referred to as Object RCs. It has already been noted in the literature that the subject/object relativization distinction is not as clear as it is thought to be. There is an extensive usage of the distinction between a “subject relativizer” morpheme {-(y)An}, and an “object relativizer morpheme {DIK} in Turkish linguistics despite the fact that a number of linguists (Underhill 1972, Hankamer & Knecht 1976, Nilsson 1985, Zimmer 1987, Sezer 1972, 1991, Özsoy 1989) who have observed that the distinction is not as clear as the terminology leads to believe. Nilsson (1991) argues that the referentiality feature of the subject NP interacts with the choice of the relativizer.

Consider the data below (Underhill 1972:90). The construction where the subject is in the nominative occurs with the so called “subject-relativizer” morpheme {-yAn} on the predicate in (63a) and the construction where the subject is in the Genitive occurs with the “object-
relativizing” \{-DIK\} on the predicate in (63b):

\[(63)\] a. Üzerin-de kuş-ø otur-an ağaç
   On-loc bird-NOM sit-rel tree
   ‘The tree on which a bird sits’

b. Üzerin-de kuş-un otur-duğ-u ağaç
   On-loc bird-GEN sit-rel tree
   ‘The tree on which the bird sits’

The Nominative subject \textit{bird} is interpreted as an indefinite, i.e. \textit{a bird}, whereas the
Genitive subject \textit{bird} is interpreted as definite \textit{the bird}.

It has also been observed that agentive predicates prefer the Genitive (Hopper and
Thompson 1980):

\[(64)\] Üzer-in-de kuş-un sek-tiğ-i ağaç
   On-loc bird-GEN hop-rel-agr tree
   ‘The tree on which the bird hopped’

Note that the relativized nouns are locative ones. The ‘tree’ above is extracted out of a
Genitive phrase:

\[(65)\] Ağac-ın überin-de kuş otur-uyor.
   Tree-gen on-loc bird sit-prog
   ‘A bird is sitting on the tree’

The Nominative subject, \textit{bird} in (65) above is indefinite. For the bird to be definite in the
non-relativized sentence, it must be in the sentence initial topic position:

(66) Kuş  ağac-ın üzerin-de otur-uyor.
    Bird tree-gen on-loc sit-prog
    ‘The bird is sitting on the tree’

Note also that the tree would have to be non-genitive for it to be indefinite:

(67) Kuş  ağaç-ø üzerin-de otur-uyor.
    Bird tree-NOM on-loc sit-prog
    ‘The bird is sitting on a tree’

Indefinite object in Turkish is Null case marked and as such may be Nominative. As such they cannot be scrambled over a Nominative subject but can scramble over non-Nominative subjects (68):

       Apple      -Nom like-Prog
       *‘Apple Kürşat likes’

       Apple      -Gen like-asp-agr-acc know-prog-1sg
       ‘I know that Kürşat likes apple(s)’

The difference between the grammaticality judgements in (68a-b) suggests that the indefinite object is in fact a Null/Nominative case object, not a case-less argument incorporated to the verb.

Note that (68a) becomes grammatical in generic contexts (69), where it is clearly not an
instance of incorporation:

(69) Kitap ben t, cok sev-er-im
    Book I very much like-Pres-1sg
    ‘Book (s) I like very much’

Another interesting property of generics is that they do not allow bare plurals in the object position:

(70) *Ben kitaplar sev-er-im
    I book-pl like-aor-1sg
    ‘I like books’

Leaving the research on generics for further study, I will conclude that genitive case has a special semantics in Turkish: it no longer denotes specificity within generic contexts. In the subsection below, I will discuss another semantic property of genitive in Turkish.

2.2.9.2.4. Genitive and Referentiality in Turkish

The special semantic nature of genitive is not restricted to generic contexts. Nilsson (1979, 1985 in 1991) states that Case marking is regarded as a textual operation related to the speaker’s organization of language structures with respect to what he wants to convey by these structures. In her analysis, Accusative and Genitive are dependent not only on reference (varying degrees of specificity and definiteness), but also other pragmatic factors.

It has been argued that Turkish accusative and genitive make the noun independent of its predicate and head noun, respectively (Gronbech 1936, Mundy 1955, Johanson 1977). ACC and GEN mark the semantically (referentially and/or thematically) most independent complements and both of them are associated with transitivity in sentences and discourse. Referentiality
feature of the subject NP has been noted to interact with the choice of Relativizer.

Distribution of the indefinite subject in existentials and the definite/genitive subject in Noun Complements have been clearly observed and discussed in Underhill (1972), Sezer (1972), Hankamer and Knecht (1976), Kuno (1971), Nilsson (1986):

(71) a. Su-yun e₁ altı̇n-dan ak-ti̇ği̇-ı kapı₁ DEFINITE
    water-Gen under-abl flow-asp-agr door
    ‘The door under which water leaks/has leaked’

b. e₁ altı̇n-dan su-yun ak-ti̇ği̇-ı kapı₁ DEFINITE
    under-abl water-Gen flow-asp-agr door
    ‘The door under which the water leaks/has leaked’

c. e₁ altı̇n-dan su ak-an kapı₁ INDEFINITE
    under-abl water flow-Rel door
    ‘The door under which water leaks/has leaked’

d *su e₁ altı̇n-dan ak-an kapı₁ INDEFINITE
    water under-abl flow-Rel door

Accordingly, Definite Gen-subject occurs both clause-initially and pre-verbally, whereas, Indefinite Nom-subject occurs only pre-verbally. Note that the head noun of noun complements are restricted by their complement and hence definite. The Genitive structure is indeed a noun complement as discussed in detail in section (2.2.2) above.

The NOM in the subject of (71c) is obligatory to mark the subject as indefinite because existentials do not allow definite NPs (See Milsark 1974 and section 2.3.1.).

Consider (72) below where a referential NP is not allowed to occur in existentials; that is, they cannot occur with NOM; they can occur with GEN in a noun complement:
    -No, garden-loc Ayse-NOM be-asp-agr-Acc tell-past
    *‘Kürşat told that there is Ayşe in the garden’

       -Nom garden-loc Ayse-NOM be-asp-agr fact-agr-Acc tell-past
       *‘Kürşat told the fact that there is Ayse in the garden’

       -Nom garden-loc -GEN/cat-GEN find-pas-asp-agr fact-agr-acc tell-past
       ‘Kürşat told the fact that Ayşe may be found(=exists) in the garden’

Since insertion of a noun is not allowed to (72b), it is a CP with no outer layer of DP to license Gen. This falls along with the fact that Genitive marks specificity that is not allowed within existentials.

To conclude, Genitive has specific properties in various syntactic and semantic contexts in Russian and Turkish. It is not correct that Genitive-Nominative conversion is not observed in matrix clauses (Hiraiwa 2001), as may be observed in Russian. Wherever such an alternation is observed, Genitive is not an optional choice but an obligatory case with a specific function.

In section (2.2.5.) below, I will discuss arguments presented to argue that V is at C in various languages including Turkish and question the analysis of Genitive licensing based on V at C (Hiraiwa 2001).

2.2.10. T-to-C in Verb Final Languages

In this section, I will discuss the diagnostic criteria proposed in the literature for
determining whether V is at C in Turkish. I will then discuss the proposed arguments for regarding V at C in Turkish and provide counter-arguments for V at C.

2.2.10.1. Diagnostic Criteria for V-T-C

The issue here is to establish valid criteria that will determine whether the verb is at C. A recent work of Ogawa (2001) presents the current diagnostics of verb raising as the following:

\[(73) \text{ Diagnostic criteria for } V-T-C \text{ (Ogawa 2001)}\]

(i) The richness of certain morphological agreement on finite verbs (Robert 1985, 1993, Kosmeijer 1986, Rohrbacher 1994, Vikner 1997);

(ii) The possibility of null subjects (Roberts 1993);

(iii) The fact that the main verb precedes nonaffixal negative elements or VP-adverbs that precede the direct objects (Edmonds 1978, Pollock 1989);

(iv) The fact that the exclusive set of a subject, an object, and an object-oriented Floating Quantifier behaves as a constituent (Koizumi 1995);

(v) The impossibility of the null C (Ogawa 2001).

The criteria in (73i) and (73ii) are theory-internal ones based on the validity of certain assumptions. First, they assume that the rich inflection on the verb is licensed via movement to higher heads, which is not a necessary assumption within the recent framework where affixes are not attached to the stem/root in syntax but predicates come from the lexicon with full inflection. Secondly, Huang (1989) convincingly argues that the occurrence of agreement morphology is not a necessary condition for the possibility of null subjects in the presence of languages such as Chinese where null subjects are allowed despite the absence of agreement.

The criterion in (73iii) is valid if and only if adverbs do not scramble, or merge at more than one syntactic position, and if Cinque (2000) and Aygen-Tosun (1998b) are correct in that
adverbs have specific positions universally.

The criterion in (73iv) assumes coordination to be a valid test for V-T-C. The problem with this test in a language like Turkish is that, due to the agglutinative nature of the language along with the availability of null subject and object simultaneously. One can not distinguish the coordinated structure as anything smaller than a clause. Consider the structures in (74) below:

(74)  

a. Ben arabá-yi yıka-dí-m ve gel-di-m  
    I car-Acc wash-Past-1sg and come-past-1sg  
    ‘I washed the car and came’  

b. Ben arabá-yi yıka-yíp gel-di-m  
    I car-Acc wash-verbal conjunct come-past-1sg  
    ‘I washed the car and came’  

c. pro, arabá-yi yıka-dí-m ve gel-di-m,  
    car-Acc wash-Past-1sg and come-past-1sg  
    ‘I washed the car and came’  

d. pro, pro yıka-dí-m ve gel-di-m,  
    wash-Past-1sg and come-past-1sg  
    ‘I washed and came’  

e. pro, pro yıka-yíp gel-di-m  
    wash-verbal conjunct come-past-1sg  
    ‘I washed and came.’

In (74a), we observe a coordinated structure, in (74b) we have a verbal coordinate conjunct that is argued to add simultaneity to the events, but which basically gives the same meaning as (74a). The same meaning is available with a pro subject in (74c), with pro subject and pro object in (74d), and its verbal conjunct version in (74e). We would have to argue that nothing smaller than a clause can be coordinated in languages with rich morphology, if we adopt
the assumption in (74i) that rich morphology suggests V at C and use the same argument cyclically as a coordination test to diagnose V at C. A morphologically rich language such as Turkish does allow coordination of smaller constituents:

(75) a. *Ben elma-yı ve armud-u ye-di-m.*
    I apple-acc and pear-acc eat-past-1sg
    ‘I ate the apple and the pear.’

b. *Ben elma-yı soy-du-m ve armud-u ye-di-m.*
    I apple-acc peel-past-1agr and pear-acc eat-past-1sg

(75a) is clearly an instance of object DP coordination. (75b), however, could be analyzed as either sentential coordination, or VP coordination, or even sentential coordination. Therefore, I believe coordination is not a reliable diagnostic test for Verb-final agglutinative languages.

The criterion in (74v) is based on a correlation between the impossibility of null C in languages that have been argued to have V at C with arguments based on the previous criteria. Considering the insufficiency of a correlation to show convincingly that V is at C, and that none of the criteria above are conclusive in proving the occurrence of V at C, there is reason to think that we still do have neither a conclusive theoretical tool nor sufficient empirical evidence to believe that there is a movement of V as high as C in verb-final languages.

Another problem is to see how a verb is at C in verb-final languages. Miyagawa (2001) gives a convincing scope test to show that the verb must be as high as T, but we do not have independent evidence showing that the verb is as high as C. Miyagawa (2001)’s test is based on the scope interaction of the quantifier *zen’in/ all* with negation:

(76) (kinoo) Taroo-ga *zen’in-o* home-nakat-ta (yo / to omou).
(Yesterday) Taro-Nom  all-Acc  praise-Neg-Past (Expl/ Comp think)
‘(I think that) Taro did not praise all (yesterday) (!).’
not > all, (*) all > not

Miyagawa (2001.) calls this interpretation ‘partial negation’ because the negation only partially negates the referent of ‘all’. When the zen’in/ all occurs in the subject position, it is interpreted outside of the scope of negation:

(77)  Zen’in-ga  sono tesuto-o uke-nakat-ta (yo  / to  omou)
   all-Nom  that  test-Acc take-Neg-Past
   ‘All did not take the test.’
   *not > all, all > not

This contrast shows that the subject in Japanese moves to Spec TP in the SOV order. The obligatory nature of some argument to move to Spec TP follows from the presence of EPP on T. Miyagawa (op. cit.) argues that a necessary condition for the EPP-triggered movement of the object in the OSV order is the movement of the verb and v to T because such a head movement makes it possible for the EPP feature on T to attract the subject or the object. This approach is attested in Turkish as well, as discussed in Aygen (2000 a,b).

In the following section, I will discuss arguments presented to argue for V to be at C in Turkish, a verb-final language, and argue that they are not valid. I will further present arguments for believing that the verb is not as high as C.

2.2.10.2. Arguments for V at C in Turkish

One of the major arguments underlying the claim that V is at C in Turkish concerns negative
Polarity Item (NPI) licensing (Kural 1993)

(78) a. Kimse-Ø gel-me-di
     no one-NOM come-neg-past
     ‘Noone came’

b. *Kimse-Ø gel-di
   noone-NOM come-past-agr

Kural (1993) assumes the subject NPI to be at Spec TP, and considering that NPI is licensed by a c-commanding Neg, he argues that the V has to be at C so as to c-command the NPI.

There is an empirical problem with this argument as it only shows that the NPI subject is in a c-commanded position by the verbal complex that bears the negative. Such a configuration would not necessitate V to be at C. It simply shows that Neg should c-command the subject NPI.

The relevant relation between the NPI and the licenser Neg is contingent on multiple factors, such as, whether the analysis assumes Neg to be the head of a functional projection (Zannutini 1997, Aygen-Tosun 1998a,b for Turkish) or not (Kelepir 2000); whether a single position or more than one position is assumed for subjects (Kiss 1998, Beghelli and Stowell 1997); as well as which projections are assumed in the phrase structure of a given language- for instance, are there any other maximal projections intervening the TP and the CP, assuming that subject is in Spec TP, etc.

Another argument underlying the claim that the verb is as high as C in Turkish is the (un)availability of Post Verbal Scrambling (PVS). PVS is allowed as a CP adjunction in Turkish (Kural 1993, Aygen 2000b among others). The assumption is that only V at C would force adjunction of its argument to CP.
A theory internal problem with Argument 2 is that there is no principled reason why adjunction should be forced to the position where the head of the dislocated elements is. Secondly, motivating a movement of the extraposed arguments to sentence final, i.e. CP is plausible without the assumption that V at C must be forcing the location site to be at CP because sentence final position in Turkish is a focus position and movement to that position is well motivated as it stands. On the contrary, post-verbal position is not defined as a focus position (Göksel & Özsoy 2000).

Previously, it was also claimed that V is at C in all clauses in Turkish (Kural 1993). The observation that complement clauses do not allow PVS argued to be due to a restriction on adjunction to complements (Kural 1993). The contrast that gave rise to this claim is in below.

(80) **Factive Noun Complement**

*I-Ben-Ø [Ali-nin tı kır-dığ-ı zaman]ı cam-ı bil-iyor-du-m*

I-Nom -GEN break-DIK-agr time-Acc glass-acc know-prog-past-1sg

‘I knew the time when Ali broke the glass’

(81) **Finite Complement**

*Ben-Ø [Ali-Ø tı kır-dığ-ı zaman ] cam-ı gerçek-ı*

I-Nom -NOM break-DIK-agr time glass-acc truth-acc bil-iyor-du-m.

know-prog-past-1sg
Aygen (2000c,d, 2002a) suggests that the restriction refers to a Relativized Minimality Effect (RME), also observed in Persian by Karimi (1998) The arguments for this proposal are presented in the Appendix to this chapter and major data is repeated here as (82-83) for convenience.

The subject that is marked Genitive is allowed to adjoin to the clause that is marked Accusative:

(82) Ben-Ø [tı cam-ı kır-dığ-ı zamanı Ali-nin, bil-iyor-du-m
     I-Nom glass-acc break-DIK-agr time-Acc -GEN know-prog-past-1sg
     ‘I knew the time when Ali broke the glass’

An Accusative marked object may indeed be scrambled out of a complement clause if the clause is not marked Accusative:

     I-Nom -Gen break-asp-agr-Dat glass-Acc believe-prog-1sagr
     ‘I believe that Kürşat broke the glass’

Data (80-83) above show explicitly that the ungrammatical structures are not due to a restriction on adjunction to complement clauses as argued in Kural (1993), but due to a restriction on moving constituents out of a clause with same case morphology, i.e. grammatical function.

Having seen that we do not have sound evidence showing that V is at C in Turkish, I will
apply an adverb scope test to see whether the verb might be at C. *Sadece/Only* is an adverb that can take phrasal and/or clausal scope depending on its position. In the sentence initial position it is ambiguous between sentential scope and contrastive focus scope:

(84) a. Sadece Kürşat- Ø Ankara-ya gid-ecek.

   Only -Nom -Dat go-fut

   Ambiguous:

   (i) The only thing is that ‘Kürşat will go to Ankara’ (nothing else will happen)

   (ii) ‘Only KÜRŞAT will go to Ankara’ (not Ayşe).

Compare (84) to (85):

(85) Kürşat- Ø Ankara-ya gid-ecek sadece

   -Nom -Dat go-fut only

   ‘Kürşat will only GO to Ankara (he will not live there)’

When adjoined to sentence final position, “only” gives a contrastive focus scope over the VP, not over the full clause. If the verb were as high as C, we would expect it to have clausal scope as well.

Whether we assume the base position of the adverb to be a VP adjoined position or we assume it to be merged at the sentence final position is irrelevant for the purposes of the argument. If it has A-bar moved to the sentence final position, we would have to assume that it reconstructs to its VP position. A-bar movement contradicts the motivation for the movement to the sentence final position since an extraposition of this type is motivated only for achieving a scope difference. There is no reason why it should reconstruct and yield the interpretation that it could without moving in the first place.
If it is merged at the sentence final position, it is possible to locate the adjunction site based on the interpretation available. If the verb were as high as C, the adverb would have a sentential scope, but it does not. Therefore, it must have adjoined to a position lower than CP, which would leave V at a position lower than C as well.

Verb raising has been questioned in many other languages. For instance, Hungarian permits overt V-raising to v in some limited environments, i.e. the verb can precede some VP-adverbs and pre-verbs (PV) (Kiss 1987:73). In most cases even partial verb movement is impossible.

(86)  a. Janos olvasta mar fel ezt a verset
      John read already out this.Acc the poem.Acc
      ‘John has already read this poem’
     b. Janos olvassa meg fel ezt a verset.
      John reads PV out this.Acc the poem.Acc
      ‘John will still read out this poem (some day)’

In brief, we do not have any evidence indicating that V moves as high as C, yet we do have supportive evidence to argue that V is at a lower position than C (at T) in any Turkish structure, including Genitive constructions. Note that Hiraiwa (2001) and Kornfilt (2001) argue that verb is at C and the phi features on C license Genitive on the subject of the complement clauses.

2.2.10.3. Other Problems with V-T-C licensing Genitive as a Cross-Linguistic Theory of GA/NO

Hiraiwa (2001) refers to Cuzco Quechua (Lefebre and Muysken 1988) as supporting
empirical evidence for an analysis based on the \textit{phi features} on the V+T+C amalgamate internal to the clause licensing Genitive case on the subject. This analysis argues against an external nominal head licensing the genitive. In this sense, Hiraiwa (2001) argues that the observation that Genitive subject does not agree with the relative head noun (Hiraiwa 2000, data 63b repeated below as (87) is predicted by his analysis.

(87) \textit{Cuzco Quechua} (Lefebrve and Muysken 1988)

\begin{enumerate}
\item wawa-\text{-y} \\
child-I \\
‘my child’
\item runa-q qu\text{-}qui-Ø qu-sqa-n warni-\text{-}man \\
man-Gen money-(Acc) give-NML-3 woman-to \\
‘the woman to whom the man gave the money’
\end{enumerate}

According to Hiraiwa (2001) the genitive subject in (87b) does not agree with the relative head noun of the relative clause. This, he argues, proves his claim that the \textit{phi feature} of the genitive subject agrees with the \textit{phi-feature} on C, not with the external nominal head. The fact is when the structure is an object relative RC, the clausal V agrees with the subject not the object head noun. Turkish exhibits the same property, but this is not necessarily an indication of V-T-C.

Hiraiwa’s (2001) analysis predicts a universal correlation between the (un)availability of NGC and the absence/presence of overt C. Turkish is given as an example to show that Genitive is not allowed in overt complementizer \textit{ki} constructions. However, this is misleading as subordinate clauses with the Complementizer \textit{ki} in Turkish are fully finite-like root clauses, where the only possible subject case to be licensed is Nominative, just as in regular root clauses. As may be observed in (88), the inflectional make-up of relative clause predicates, and that of the
post-relative *ki* clause predicates, are different, and therefore cannot be compared in terms of NGC. Compare the *ki* clause in (88a) with a root clause in (88b):

(88)  

a. O sözler *ki* bir kere **çık-mış-tır** ağz-ımız-dan,

That words *Comp* once leave-Perf-Epis mouth-our-abl,

uğru-nda can veririz.

for-it soul give-Imp-1pl. (from Nazım Hikmet)

Literally: ‘Those words that have left our mouth once (already), we give our lives for them’ = ‘We stand behind our words at the expense of death’

b. O sözler bir kere ağz-ımız-dan **çık-mış-tır**

That words once mouth-our-from leave-Perf-Epis

‘Those words have left our mouths once (already)’

Note that the subordinate clause with an overt Complementizer is identical to a root clause. The argument of the verb in the subordinate clause in (88a) is extraposed for stylistic purposes and would be just as grammatical in its pre-verbal position.

Another problem with Verb raising to C to license Genitive is pointed out in Whitman (2002). The verb does not have to be adjacent to complementizer position in order for genitive case to be licensed in Pre-Han Chinese *zhi* (data cited in Whitman 2002 from Djamouri 1999 and Wang 1962):

(89)  

a. Complex NP

Yi … fu gan bu dui yang [[zhen bi huang jun *zhi* chi ] xiú ming].
Yi not dare not address praise our sovereign august lord ZHI give good order
‘Yi did not dare not to praise the excellent order that our august lord and king gave.’ Shu yi zhong, 5th c. BCE.

b. Clausal Nominalization

Ji [Zhongguo zhi zai hai nei ] bu si [ti mi zhi zai da cang] hu?
Count China ZHI be.in sea midst not like tare ric ZHI be.in big granary Q
‘Counting China(s) being in the midst of the sea, is it not like tares of rice being in a great granary?’ Zhuangzi, Qiushui,. 3rd c. BCE.

In brief, the proposal that phi features of V at C license Genitive case is not convincing for Turkish facts.

2.2.11. Conclusion to the Genitive-case licensing in Turkish

I have argued that Genitive–Nominative conversion is not an optional alternation. Genitive and Nominative subjects occur in different syntactic structures despite the surface similarity in their predicate form. Along with this structural difference, the difference in the case on the subject of the clause have an interpretational effect, as was first observed by Miyagawa (1993). The Genitive is licensed by an external nominal functional head. I adopt Miyagawa (1993) in maintaining that Turkish noun complements, and Relative Clauses Genitive is licensed by the covert phrasal movement of the Genitive argument to Spec DP.

2.3. Agreement and Finiteness

With the seminal work of George and Kornfilt (1981), Turkish was understood to be a language belonging to the Agreement-based finiteness type of languages as opposed to Tense-
based languages such as English. Following Chomsky (1981) and George and Kornfilt (1981), other languages were argued to have Nominative case assigned by Agreement. Recently, Pesetsky and Torrego (2001) tries to unite both sides of the debate by claiming that nominative case is an uninterpretable Tense feature on D, but that the association of a nominative DP with T is driven by uninterpretable phi features on T. This chapter discusses the Agreement side of the debate, and the next chapter discusses the analysis of Pesetsky and Torrego (2001) that unites both sides.

In this chapter, I will argue that Agreement is not the parameter relevant to finiteness in Turkish. In the first section, I will discuss George and Kornfilt’s (1981) claim that Agreement is a parameter of finiteness, and argue that their arguments are not valid. In section (4.2.), I will present arguments based on Turkic languages (Turkish, Tuvan, Kazakh) and Dagur (Altaic) to argue that Agreement cannot be a subject case licenser. In section (4.3.), the discussion will include the languages argued to have Agreement as a case licenser, i.e. European Portuguese and Italian (Raposo 1987, 1989).

2.3.1. Agreement as Finiteness (George and Kornfilt 1981)

In this section, I will present the arguments that underlie the major claim of G&K (1981) that “The parameter relevant to finiteness in Turkish is Agreement rather than Tense.” I will argue that these arguments are not valid on two grounds: Firstly, the Turkish facts are not as illustrated; sources of ungrammaticality are independent of the presence/absence of Agreement in the structure. Secondly, even if we assume Turkish facts as they are presented in George and Kornfilt (1981), there are theoretical arguments that indicate that the syntactic tests developed for English are not valid in Turkish.
2.3.2. Arguments of George and Kornfilt (1981)

The first four arguments in George and Kornfilt (1981) are based on the differences between two types of complement clauses they identify in Turkish: Direct Complements and “Gerunds”. Direct Complements refer to clauses that occur in the complement position pre-verbally, as illustrated in (90). They bear tense and verbal agreement on their predicates, and are regarded as finite clauses similar to root clauses.

(90) Kürşat-Ø [ben- Ø gel-di-m] san-iyor- Ø.

  Kürşat-Nom    I-Nom   come-past-1sg think-Prog-3sg

  ‘Kürşat thinks that I came’

The structures called “Gerunds” by George and Kornfilt (1981), on the other hand, are constructions that occur in complement positions, as well. Their predicates have either what G&K call a gerundive suffix {–DİK} or Infinitival suffix {–ME(K)} and nominal agreement (91a&b):

(91) a. Kürşat-Ø [ben-im gel-diğ-im]-i san-iyor- Ø.

  Kürşat-Nom    I-Gen   come-Ger-1sg-Acc think-Prog-3sg

  ‘Kürşat thinks that I came’

b. Kürşat-Ø [ben-im gel-me-m]-i ist-iyor- Ø.

  Kürşat-Nom    I-Gen   come-Inf-1sg-Acc want-Prog-3sg

  ‘Kürşat wants me to come’

I will follow Lees (1965), and the later work of Kornfilt 1997, 2001, Kennelly 1996,
Özsoy 1998, among others) in that \(\{-DIK\}\) clauses in (91a) are not gerunds as claimed in George & Kornfilt (1981) but factive noun-complements. I will keep the term “Gerunds” to refer to \(\{-DIK\}\) clauses in the discussion of data from George and Kornfilt (1981).

Consider (92) on the syntactic differences of Direct Complements (DC) and Gerunds (G), as given in George and Kornfilt (1981):

(92) *Direct Complements vs. Gerunds* (George & Kornfilt 1981)

\[
\begin{array}{cccc}
\text{a. Case marking} & \text{b. Object of PostP} & \text{c. Focus movement} & \text{d. Toppling (PVS)} \\
\text{DC} & X & X & X & X \\
\text{G} & \checkmark & \checkmark & \checkmark & \checkmark \\
\end{array}
\]

One could argue that (92a-d), all follow from gerunds being nominal constructions. Being case marked allows “Gerunds” to occur as Objects of PostPs and also to be scrambled to sentence initial (Focus Movement), or sentence final position (Toppling). It is a well-known fact that scrambling is allowed for case marked arguments. Lack of Case prohibits DCs from these positions. Consequently, (92) presents only one argument to distinguish Direct Complements from “Gerunds”:

(93) Direct Complements cannot be case-marked, “Gerunds” can.

Consider the data in (94) where unavailability of “Focus Movement”, i.e. scrambling to sentence initial position is illustrated as an argument to distinguish DCs and “Gerunds” in G&K.
Focus movement and Toppling

a. Focus Movement

... Foc ... V
z--↑

b. Toppling

... Presupposition ... V
z--------↑

Note that focus movement is taken to be a movement to the preverbal position, i.e. lowering of higher arguments. This is problematic in that we do not really know what the preverbal position is in hierarchical terms. Recent work on Focus positions and movement in Turkish (Göksel & Özsoy 2000) argues that focus is closely related to stress rather than a specific position. They argue that “the stressed constituent is in its structural position rather and that it is the topicalized element that moves to the left of that constituent” (G&Ö 2000). In this respect, the movement in these structures is not a lowering process but adjunction to CP, either sentence–initially or sentence finally.

The preverbal default position is not a defined syntactic position in hierarchical terms. It simply refers to a descriptive linear position of an argument. The “Focus Movement” is in fact an outcome of Topicalization of argument(s) to sentence initial position, leaving a higher constituent preverbal, in terms of linear processing.

Topicalization

(95) Topicalization

[Object-NP_i  Subject-NP  t_i VP]
↑---------m
Toppling is an instance of P(ost) V(erbal) S(crambling), an A-bar adjunction to sentence final position (Kural 1993, Aygen 2000a,b,c). This is accepted to be an adjunction to CP (Kural 1993), though it could as well be an adjunction to a lower maximal projection depending on the position of V in overt syntax (Aygen 2000a,b).

Consider the data from G&K (1981) in (96) below that gives a contrast between DCs and Gerunds in terms of “focus movement”, i.e. Topicalization:

(96) Unavailability of Focus movement in Direct Complements (G&K 1981)

a. Lexical NPs
   viski-yı çocuğ-a yazar ver-di
   whiskey-acc child-dat author give-past
   ‘It is the author who gave the whiskey to the child’ (“author” is focused)

b. Gerund Complements
   [yazar-lar-ın viski-yı iç-tik -ler-in]-i, herkes tı bil-iyor
   author-pl-Gen whiskey-acc drink-GER-plu-agr-Acc everyone know-prog
   ‘Everybody knows that the authors drank the whiskey’ (“everybody” is focused)

c. Direct Complements
   [*yazar-lar viski-yı iç-tı], herkes tı san-iyor
   author-plu whiskey-acc drink-past everyone believe-prog

The scrambled arguments in (96a) are case marked, i.e. they are allowed to scramble. Such a scrambling leaves the subject in the pre-verbal focus position. In the literature on scrambling, the availability of scrambling only for case marked arguments is clearly stated. This
is predictable, since the positions that the arguments are scrambled to are not necessarily case-checking A-positions. It has been argued that Scrambling is not triggered by Case features: clause-internal scrambling is triggered by EPP and clause-external scrambling by *Topicalization* to an A-bar position (Miyagawa 2001 and to appear). Since scrambling is not triggered by Case features, the scrambled arguments must have their case features before undergoing scrambling. This accounts for scrambling being restricted to case-marked arguments.

Another argument supporting the restriction of scrambling to case-marked arguments is that adjuncts, which, by definition, do not need case, are not allowed to scramble (Aygen 2000a,b following Miyagawa 2001).

Moreover, the scrambled arguments in (96a) cross over an argument with a *different* case, i.e. Nom/Null case marked subject. If the subject is lowered, this argument is still in place, since it does not cross over other Nom/Null Case arguments. In (96b), the scrambled (pre-posed) phrase is Acc marked and does not cross over another Acc-case marked argument. In (96c) however, the scrambled DC has *no* case and naturally, is not allowed to scramble. It might also be the case that it has *null* case just like Nominative subjects in the sense presented in Bittner and Hale (1996) and indefinite objects in Turkish, and therefore is forbidden to scramble over the *Nom/Null* cased subject.

Consider (97) below where indefinite objects are null cased/not cased and are not allowed to scramble as well:

(97) a. Kürşat-Ø kitap-Ø oku-yor.
   Kürşat-NOM book-Null read-prog
   ‘Kürşat is reading a book/book reading’
Considering that DCs occur in the complement position just like the indefinite object
*kitap/book in (97), pre-posing a DC from that position might be independently impossible. This
makes the comparison of (96a-b) to (96c) not valid, though it still leaves us with the observation
given in (93), as to why DCs are not case marked.

Observe the data in (98) where DCs and “Gerunds” contrast in terms of availability of Toppling. Lexical NPs and Gerunds can and DCs cannot undergo Toppling, i.e. post-verbal scrambling:

(98) Unavailability of Toppling in Direct Complements

a. Lexical NPs
   
   t₁ viski-yi çocug-a ver-di yazar₁
   
   whiskey-Acc child-Dat give-past author
   ‘The author gave the whiskey to the child’

b. Gerund Complements

   Herkes t₁ bil-iyor [yazar-lar-in viski-yi iç-tik-lerin]-i₁
   everyone know-prog author-plu-Gen whiskey-Acc drink-GER-3pagr-Acc
   ‘Everyone knows that the authors drank the whiskey’

c. Direct Complements

   *Herkes t₁ san-iyor [yazar-lar viski-yi iç-ti],
   everyone believe-prog author-plu whiskey-Acc drink-past
George & Kornfilt (1981) account for the contrast in (96) and (98) by arguing that

- Gerunds are NPs but DCs are not NPs
- A bare clause must surface just before the governing V

First of all, the observation of (G&K) that bare clauses must surface pre-verbally is not restricted to DCs but all bare NPs in Turkish, as may be observed in (97), and this does not distinguish DCs from regular bare NPs.

Secondly, Toppling is an instance of Post Verbal Scrambling, subject to the constraints given above. (96b) and (98b) are case marked, while (96c) and (98c) are not, and therefore, are not allowed to scramble. The unavailability of DC to bear Case and to be complements of PostPs is due to the fact that, the so-called “Gerunds,” but not DCs, have an external nominal layer. In that sense, George and Kornfilt (1981) capture the basic grounds for the analysis of (96b&98b) as a Noun Complement by Lees (1965) and subsequent work (Sezer 1991, 1994, Aygen 2002a, among others). These structures have an external null nominal head where we can insert a lexical noun “gerçeği/the fact”:

(98b’) Herkes t₁ bil-iyor [[yazar-lar-ın viski-yi iç-tik-leri]
  everyone know-prog author-plu-Gen whiskey-Acc drink-Asp-3pagr
gerceğ-i-n]-i
  fact-agr-Acc
  ‘Everyone knows the fact that the authors drank the whiskey’

Thirdly, the ungrammaticality of (96c, 98c) is due to the unavailability of non-case marked arguments to undergo scrambling. This may also be due to the restriction on extraction
over arguments with the same case (96c), since both DCs and the clause from which they are extracted have null case.

In brief, the insight that there is an NP-nature in complement clauses of type (96b, 98b) is correct; however, this, I will argue, is due to the outer nominal layer, which does not suggest anything about the nature of the inner clause. George and Kornfilt (1981) and subsequent work discuss the differences between the {-DIK} clauses and DCs, but there is no work on a peculiar similarity between these clauses in terms of syntactic distribution:

- Neither can occur as subjects of finite transitive verbs
- Both can occur as subjects of passive verbs

(99) "Gerunds" = Factive Noun Complements

   -Gen come-asp-poss we-acc surprise-past
   intended reading ‘That Kürşat came surprised us’

   -Gen come-asp-poss know-pas-prog
   ‘That Kürşat came is known’

(99b) is a Passive construction. The contrast in (99a-b) indicates that this kind of subordinate clauses can only merge at Spec of VP in the complement position; never at Spec of vP in the subject position. The ungrammaticality of (99a) suggests that these constructions are not Gerunds since we would expect a Gerund to occur in a subject position.

Consider the true gerunds allowed in the subject position in (100) below. (100a) is an
action clause, (100b) is another gerund where the gerundive suffix \{-Iş\} adds the manner of the act to the meaning of the gerund:

(100) Gerunds in subject position in Turkish

a. [Kürşat-ın gel-me-si] biz-i şaşırt-tı.
   Kürşat-Gen come-INF-agrₙ we-acc surprise-Past
   ‘Kürşat’s coming surprised us’

   Kürşat-Gen come-Ger-agrₙ we-acc surprise-Past
   ‘The manner of Kürşat’s coming surprised us’

Interestingly, Direct Complements exhibit exactly the same distribution with factive \{-DIK\} clauses. They cannot occur in the subject position in clauses with transitive verbs, but they can occur as subjects of passive constructions:

(101) Direct Complement

a. *[Kürşat gel-di] biz-i şaşırt-tı. (Grammatical as two separate sentences).
   come-past we-acc surprise-past
   * ‘Kürşat came surprised us’

b. [Kürşat gel-di] san-il-iyor.
   come-past think-pas-prog
   ‘It is thought that Kürşat came’

This discussion argues explicitly that the \{-DIK\} constructions are not Gerunds as claimed by George and Kornfilt (1981). As for the nominal nature of these constructions, our
positions differ in terms of the structure under the N layer. Following Abney (1987), G&K’s (1981) claim that they are NPs could be represented by the structure in (102a). Since it is clear that they are not gerunds, my analysis would be represented by the structure in (102b):

(102) Two options on the Internal Structure of {-DIK} Clauses

a. Poss-ing gerunds (would be G&K’s structure under Abney 1987)

<table>
<thead>
<tr>
<th>DP (English)</th>
<th>DP (Turkish)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ru</td>
<td>ru</td>
</tr>
<tr>
<td>John’s</td>
<td>Kursat-in</td>
</tr>
<tr>
<td>D’</td>
<td>D’</td>
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<tr>
<td>ru</td>
<td>ru</td>
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<tr>
<td>ru</td>
<td>ru</td>
</tr>
<tr>
<td>VP</td>
<td>-DIK</td>
</tr>
</tbody>
</table>


| NP         | (Turkish) |
| ru         |           |
| XP         |           |
| ru         |           |
| Kursat-in  | X’        |
| ru         |           |
| VP         | X ={-DIK} |
| ru         |           |

The ungrammaticality of (101a) is predicted (Stowell 1982) in that finite clauses cannot
merge as subjects. Since the same distribution holds for \{-DIK\} clauses that are regarded as “Gerunds” by G&K (1981) and as Noun Complements by Lees (1965, and others), how come they both show the distribution of finite clauses in terms of subjecthood? Since there is clearly a nominal layer external to the construction in \{-DIK\} clauses, how come they cannot occur where NPs do? If the Nominal Agreement morphology on the \{-DIK\} predicates is what makes it finite, how come the same nominal agreement morphology does not render the true Gerunds in (100) finite and forbid their occurrence in the subject position?

The answer to this question may lie in the following lines of research. First of all, nominal character of a phrase/clause does not necessarily imply that it may occupy the same positions as DPs. French and Italian infinitives, for instance, cannot merge as subjects unless they are modified by a definite article (Kayne 2000). If Factive complement clauses in subject position are NPs, not DPs, the lack of a D layer may account for unavailability to merge at Spec vP. On the other hand, there is no intrinsic difference in merging a DP as a subject argument but not an NP. If D is necessary to type-shift predicate NPs into argument DPs, the same should hold for object argument DPs.

There is a possible account of this fact: If it is correct that Turkish NPs have a Case Phrase (KP) instead of a DP to make predicative NPs arguments as is claimed in Ozturk (in progress), it is predicted that the factive Noun Complements will occur as complements where they are case-marked. They would also be expected to appear in the subject position. Note that the factive non-interrogative subordinate clauses have an empty nominal head, and null nominals need not be case marked. Lacking the functional K layer, they cannot occur as an argument NP in the subject position. This analysis predicts that when the Nominal head is lexically realized, i.e. filled by the head noun *gercegi/the fact*, these clauses can occur as subjects of transitive
constructions. The prediction is attested in (103b) below:

(103) a. *[[Kürşat-ın gel-diğ-i Ø] biz-i şaşırt-tı.  
                 -Gen come-asp-agr we-acc surprise-past

 _intended reading_ ‘That Kursat came surprised us’

                 -Gen come-asp-agr fact-agr we-acc surprise-past

 ‘That Kürşat came surprised us’

The unavailability of a null headed Noun complement in the subject position (103a) contrasts with the availability of a lexically filled head noun-Complement (103b). Note that there is an agreement morphology on the lexical head noun in (103b), which is called a compound-noun marker in Turkish literature (Lees 1960, 1969, Sezer 1991 for discussion). Compound noun markers occur attached on the second/head noun of compounds:

(104) bahçe kapı-sı
       garden door-agr
       ‘garden gate’

In such structures, possesee agreement morphology occurs without possessor agreement morphology, i.e. Genitive and is interpreted as a compound marker. I will argue that this so called “agreement/compound marker’ is in fact a manifestation of Agreement on the nominal head that licenses Genitive and marks definiteness/specificity. The lack of a specificity marker prevents the occurrence of a non-specific argument in the sentence initial, i.e. restrictive clause in the sense of Diesing (1992). It follows that the morpheme that gives the definite reading to
gerçek/fact is a manifestation of the presence of a nominal functional category (Kase/Determiner) in (103b) that shifts the predicative NP to an argument NP. The lack of K layer in (103a) accounts for the contrast in (103). In the complement position, null head is allowed because specificity can be marked by overt case on complements.

A further support for this analysis comes from the unavailability of constructing an indefinite clause in the subject position in Turkish corresponding to the English ‘a fact that John came surprised us’.

I would also like to note that the contrast in (103a-b) refutes Lees’ theory (1965) because he claims that these structures are equivalent.

2.3.3. **Major arguments for restrictions on Scrambling (Aygen 2000a,b, 2001): a uniform account**

Extraction is allowed when the dislocated item bears a different case than the complement clause from which it is extracted and to which it is adjoined: (Observation in Sezer 1978). Previously, it was assumed that there is a difference between the so-called Non-Finite Complement clauses ({-DIK} clauses) and Finite Direct Complements in terms of the availability of P(ost)V(erbal)S(crambling) to the clause initial position based on the contrastive data given below:

\[(105) ~ \text{Noun Complement:} \]

\[*\text{Ben-Ø } [ \text{Kürşat } \text{-in } \text{tı } \text{kır } \text{-diğ } \text{-in } ] \text{ } \text{ı } \text{cam-ı } \text{san } \text{-ıyor } \text{-du } - \text{m} \]

I-Nom -GEN break-asp-agr-Acc glass-acc think- prog- past-1sg

‘I knew that Kürşat broke the glass’
(106) Direct Complement

\[
\text{Ben-Ø [ Kürşat-Ø t̄ı kır-dı- Ø ] cam-ı, san-iyor-du-m.}
\]

I-Nom -NOM break-perf/past-agr glass-acc think-prog-past-1sg

‘I thought that Kürşat broke the glass’

In fact, this contrast is not real as both (105) and (106) are subject to the same restriction.

It is not correct that Noun Complements do not allow PVS. They do allow it when the scrambled argument is not accusative marked like the clause itself: the subject that is marked Genitive (in 107) is allowed to adjoin to the clause that is marked Accusative:

(107) Ben-Ø [ t̄ı cam-ı kır -diğ -ın ] Kürşat-ın, san-iyor-du-m

I-Nom glass-acc break-asg-agr -Acc -GEN think-prog-past-1sg

‘I thought that Kürşat broke the glass’

An Accusative marked object may indeed be scrambled out of a complement clause if the clause is not marked Accusative:

(108) Ben- Ø [Kürşat-ın t̄ı kır -diğ -ın ]-a cam-ı, inan-iyor-um.

I-Nom -Gen break-asp-agr-Dat glass-Acc believe-prog-1sag

‘I believe that Kürşat broke the glass’

2.3.4. Internal Morphology and Structure of N-Complements and Direct Objects

The analysis that regards Noun-Complements as “Gerunds” (G&K 1981), and Direct Complements as finite clauses, is based on the similarity between the agreement morphology on the predicate of the noun-complements and on Gen-Poss constructions on the one hand, and the similarity between agreement morphology on the predicates of DCs and on root clauses on the
other. Following are the generalizations on the issue in George and Kornfilt (1981):

(109) *George and Kornfilt* (1981)

(i) “The internal morphology of gerunds mirror *exactly* that of Possessive Compounds” … “this is an argument for the NP nature of gerunds.”

(ii) The Agreement morphology of DCs is identical to that of Root Clauses.

(iii) The Agreement morphology of gerunds is identical to that of Poss NPs.

The Non-verbal agreement morphology cannot be an argument for the NP-nature in general, since the same morphology appears in Adjunct Clauses with Nominative subjects as well as Complements, as will be discussed below. I will argue that the non-verbal agreement within subordinate clauses has a different syntactic function than agreement in Poss-NPs, despite the similarity in form: it marks “dependence” of the clause to a higher clause in terms of mood (Chapter 4).

As for the observation in (109ii) above, it is definitely correct that DCs bear the same agreement morphology as that of finite root clauses. This, however, does not directly suggest that they are *finite* clauses identical in structure to root clauses. I agree with G&K (1981) in that DCs are finite in terms of Nominative case licensing, but not necessarily identical in terms of what features they bear to root clauses. Direct Complements do not exhibit *all* inflections that can occur in a Root Clause, as will be illustrated in Chapter 4. Furthermore, the agreement morphology on DCs is also identical to that of Conditionals, a kind of subordinate/adjunct clause.

Leaving the discussion on function of Agreement morphology as a marker of *dependence* of clauses to Chapter 4, I would like to discuss other arguments presented by George and Kornfilt (1981) in favor of Agreement as finiteness.
2.3.5. “In Turkish Finite phrase is one with Agr, nominal or verbal”

The essential argument for Agreement as finiteness in Turkish is based on ECM data without Agreement, and its finite counterpart with Agreement morphology. In fact, there are three reported dialects of Turkish in terms of (dis)allowing agreement in ECMs. The dialect reported and discussed in Knecht (1974 a, b) and Kornfilt (1976), George & Kornfilt (1981) is the one where the presence of Agr in ECM yields to ungrammaticality. The two other dialects are the ones where the presence of agreement is reported and discussed as either compulsory (Pullum 1975) or optional (Kural 1993, Zidani-Eroglu 1997, Moore 1998, Aygen 2000a,b). Data (110) below illustrates the facts of the dialect that regards agreement ungrammatical in ECMs (G&K 1981).

(110) a. Non Finite -Direct Complement
Ahmet [biz-i viski-yi iç-ti-(k)] san-iyor
Ahmet-Nom we-Acc whiskey-Acc drink-Past-(1pl) believe-Prog
‘Ahmet believes us to have drunk the whiskey’

b. Corresponding F-Direct Complement
Ahmet [biz viski-yi iç-ti-k] san-iyor
Ahmet-Nom we-Nom whiskey-Acc drink-Past-1pl believe-Prog
‘Ahmet believes we drank the whiskey’

In terms of Tense (if {–di} is Past) the ECM in (110a) does not differ from its so-called finite counterpart in (110b), and the contrast is due to the presence of agreement in G&K (1981). In the two other dialects, there is no contrast between (110a and b).

Another argument is based on a similar contrastive data where the presence of agreement
is ungrammatical within the NF clause. The presence of Agr in (111) is ungrammatical in the reported dialect where the contrast holds.

(111)  a. Another NF DC

*(Siz) [tı bütün viski-yi bitir-di] gibi görün-uyor-sunuz.

You all whiskey-acc finish-Past-No Agr like look-Prog-2pl

You look like finished all the whiskey’

‘Corresponding F-DC

b. [Siz bütün viski-yi bitir-di-niz] gibi görün-uyor.

You all whiskey-acc finish-Past-2pl like look-Prog

‘It looks like you finished all the whiskey’

The argument presented in G&K (1981) is that raising is not allowed to a non-finite, i.e. non-agr, clause, hence the ungrammaticality of (111a), whereas, the fact that raising is allowed to a finite (in Mulder 1976), i.e. [+agr] clause (111b) in Turkish is the starting point of questioning the nature of tense as a finiteness parameter in Turkish (Chapter 1, datum (2)). (112) gives an instance of raising of a subject out of a finite clause, that is a complement of a Postposition:

(112) (Siz) [tı bütün viski-yi bitir-di-niz] gibi görün-uyor-sunuz.

You all whiskey-acc finish-past-2pl like look-prog-2pl

‘You look like you finished all the whiskey’

Whatever the status of agreement, the analysis of (111a) as a structure where subject has raised, as opposed to (111b) where the subject is licensed within the clause, is not well-justified; neither the raising of the subject in (112). Turkish is a pro-drop language and the clause-internal
subject could be either the lexical pronoun or pro in all three structures (111a,b, 112).

A significant point in this topic is that the structure in (111b), where the corresponding English sentence is “It looks like that you finished all the whiskey” where the verb bears the null, third person singular agreement, is ungrammatical in the the two other reported dialects. This observation suggests that “look like” is not a raising verb in those dialects but it is a raising verb in the dialect reported in G&K (1981).

Another interesting observation is that the finite DCs are argued to contrast with {-DIK}”Gerunds” in terms of not occurring as complements of Postpositions in G&K (1981) (92). Whereas, in (111 a&b) we observe DCs as the complement of a Postposition diye/like. This is a contradiction within the analysis presented in George and Kornfilt (1981). This, in fact, is not surprising since, if a DC can occur as a complement of a verb, it is plausible to observe them as the complement of a Postposition as well.

2.3.6. Tests that distinguish Finite and Non-Finite in terms of Agr

George and Kornfilt (1981) duly argue that tense is not the relevant finiteness parameter in Turkish, and enable the major break from tense-based finiteness and opacity approach within generative linguistics (along with Chomsky 1981, Rouveret and Vergnaud 1980.) As an alternative they propose agreement as such a parameter, based on the arguments above, and the syntactic tests that will be discussed below.

In G&K (1981), the agreement morphology on the predicates of complements are argued to be the reason of an opacity effect similar to Tensed-S Condition with respect to reciprocal binding, passive raising, reflexive binding. Recall that all of the following tests are based on the reported dialect where Agr is not allowed, i.e. its occurrence yields to ungrammaticality in ECM
constructions. Differences in grammaticality judgements alone do not suffice to clearly lay-out the differences in the analyses. Therefore, I will try to give theoretical arguments as to why agreement cannot determine finiteness regardless of the grammaticality judgements, the optionality of Agreement in Turkish, and dialectal differences. Whenever it is relevant, I will also account for independent sources of ungrammaticality in structures where lack of Agreement is presented as the source of ungrammaticality.

To re-state the dialectal differences, I repeat that the occurrence of Agr in ECM is ungrammatical in the dialect reported in G&K (1981), its deletion is optional in ECMs in one other.

2.3.6.1 Test 1: Reciprocal

Following are the data of G&K (1981) illustrating the availability of reciprocal binding from a higher clause in Non-Finite DCs (=ECM), and the unavailability of reciprocal binding from a higher clause when the reciprocal is within a finite DC: (Grammaticality judgements of data (113-115) belong to G&K (1981):

(113) N-F Direct Complement (Data (35-37) of G&K 1981)

(biz, i) [birbir-imiz,-i viski-yi iç-ti] san-iyor-uz

we e.o.-our-acc whiskey-acc drink-past-NoAgr believe-prog-1pl

‘We believe each other to have drunk the whiskey’

(114) F Direct Complement

*(biz,) [birbir-imiz,-i viski-yi iç-ti-k] san-iyor-uz

we e.o.-our-acc whiskey-acc drink-past-1pl believe-prog-1pl
‘We believe each other drank the whiskey’

(115)  *Finite Gerund*

*Yazar-lar, [birbir-leri-nin viski-yi iç-tik-lerin]i san-iyor-lar*

‘We believe each other drank the whiskey’

Putting aside the fact that all three structures are regarded as grammatical by speakers of at least two reported dialects of Turkish, the reciprocal test in (113-115) is problematic in terms of assuming the binder, *biz* “we,” to be clause external in (113) and (114). It is very likely that the binder is within the lower clause, or there is a *pro* in the lower clause co-indexed with the lexical subject. In either case, the reciprocal would be bound within its own clause. There is nothing in these structures showing that the accusative marked reciprocal in (113) is the subject of the lower clause; it could as well be the object of the lower clause with the subject being *pro* coindexed both with the higher subject and the object reciprocal. This fact also supports the grammaticality judgements of my informants from both dialects, in that there is no difference in terms of grammaticality between (113) and (114). As for (115), it is theoretically impossible for the structure to be ungrammatical. The factive Noun Complements are *not* islands in Turkish (Aygen 2000a,b, 2001, among others). The genitive subject, as argued in section (2.2.) above is licensed clause externally and is allowed to undergo A-bar movement to the clause initial position of the higher clause. Accusative objects as well as Genitive objects are allowed to undergo A-bar movement Considering that these structures are NPs, there is no plausible reason to believe that reciprocals within an NP should not be bound by a c-commanding binder in a language where even complex NPs are not islands.
2.3.6.2. Test 2: Passive

It is argued that finite DCs cannot occur as subjects of passive constructions: (Grammaticality judgements of (27-28) belong to G&K 1981).

We whiskey-acc drink-past-No Agr believe-pass-prog-1pl
‘We are believed to have drunk the whiskey’

We whiskey-acc drink-past-1pl believe-pass-prog-1pl
Attempted reading: ‘We are believed to have drunk the whiskey’

The contrast is accounted for by the lack of Agr in (116) and its presence in (117). The structures in (116&117) are given as the following, where the subject ben “I” has undergone NP movement to the higher clause:

(116’) (biz) [ t, viski -yi iç-ti] san-ıll-ıyor-uz. (Data (41-42) of G&K 1981)
We whiskey-acc drink-past-No Agr believe-pass-prog-1pl
‘We are believed to have drunk the whiskey’

(117’) * (biz) [ t, viski -yi iç-ti-k] san-ıll-ıyor-uz.
We whiskey-acc drink-past-1pl believe-pass-prog-1pl
Attempted reading: ‘We are believed to have drunk the whiskey’

The argument in G&K (1981) is that the subject in (116’) has undergone a legitimate NP movement, whereas in (117’), such a movement is banned because the clause is finite. Recall
that it was observed that Turkish allows raising out of finite, i.e. *tensed* clauses in similar data (data 2 in Chapter 1) unlike English (Kornfilt 1977, Moore 1998 among others), and this was the launching point of the idea that tense is not the relevant finiteness parameter in Turkish. One could argue that the empty category, if any, within the clauses are pro rather than an NP trace for the consistency of facts in Turkish.

A third issue is that the ungrammaticality of (117) is surprising in any dialect of Modern Turkish, since finite clauses *do* occur as subjects in passives like {-DIK} clauses, and unlike true gerunds, as has been discussed above as a property that finite clauses share with factive Noun Complements. Data (99b) & (101b) repeated below:

\[(99) \quad \text{Factive Noun Complement} \]
\[\quad \text{b. } [Kürşat-ın \, \text{gel-diğ-i}] \, \text{bil-in-iyor}.\]
\[\quad \text{-gen \, come-nom-poss know-pas-prog} \]
\[\quad \text{‘It is known that Kursat came’} \]

\[(101) \quad \text{Finite Direct Complement} \]
\[\quad \text{b. } [Kürşat \, \text{gel-di}] \, \text{san-ıl-iyor}.\]
\[\quad \text{come-past \, think-pass-prog} \]
\[\quad \text{‘It is thought that Kursat came’} \]

To repeat, finite clauses cannot occur as subjects of transitive constructions, due to the lack of a functional D/K(ase) layer. Therefore, the contrast in (116) and (117) is not real. James Huang has brought to my attention the possibility that even in passives, there might be a null expletive in the subject position and the surface form of these clauses in (10b) need not be a subject position. This is a theoretically possible line of research that I am leaving aside since it is not directly relevant to the discussion at hand.
Test 3: Reflexive

The reflexive test is presented as another argument for the claim that agreement is the parameter of finiteness in Turkish. Unavailability of a reflexive to be bound by a clause external binder is illustrated in the structures below, which are problematic for theoretical reasons:

(Grammaticality judgements and gloss in (118-119) belong to G&K):

(118) (Sen) [kendi-ni-i başarı-ya ulaş-mış ] san-iyor-sun (Data (45-47) of G&K)

you self- your-acc success-dat reach-past-NoAgr believe-prog-2sg

‘You believe yourself to have succeeded’

(119) *(Sen) [kendi-ni başarı-ya ulaş-mış-sın] san-iyor-sun

you self- you success-dat reach-past-2sg believe-prog-2sg

‘You believe yourself succeeded’

(120) *(sen, [kendi-ni-iin başarı-ya ulaş-tığ-in ]i san-iyor-sun

You self-your-gen success-dat reach-Ger-2sg-acc believe-pres-2sg

‘You believe that yourself succeeded’

Datum (119) is grammatical in one reading regardless of the dialect, provided there is emphatic reading of the reflexive: ‘You believe you succeeded yourself (=on your own)’. It is correct that the non-emphatic reflexive reading is not available: a non-case marked reflexive is not necessarily interpreted as the subject in (119= 121) but as an adjunct after all:

(121) (sen, [pro Kendin başarı-ya ulaş-mış-sın] san-iyor-sun
You yourself success-dat reach-past-2sg believe-pres-2sg
‘You believe that you have succeeded yourself’=on your own’
*You believe yourself to have succeeded’

Having the reflexive without any case morphology suggests the structure in (121) has an emphatic reflexive, since both subjects (the embedded and the higher subject) or the lower subject can be a pro in Turkish.

If the subject of the lower clause is a pro, and not the higher one, we would expect the reflexive in the Accusative for the intended reading. Consequently, the ECM in (118, 118’) and the so-called Finite-Direct Complement in (119=121) would be indistinguishable:

Consider the identical nature of the surface form in a pro-drop language:

(118'/119) seni kendin-i başarı-ya ulaş-mış-sın san-iyor-sun
You self-your-Acc success-dat reach-past-2sg believe-pres-2sg
‘You believe yourself to have succeeded’

Note also that the emphatic reading is not possible in this structure because the reflexive is case marked, whereas, an emphatic reciprocal would be a bare adjunct.

Of the two possible structures for (118'/119), the structure of the ECM would be the one in (122), whereas that of the Direct Complement would be the one in (123):

(122) ECM

(sen) [kendin-i başarı-ya ulaş-mış-sın] san-iyor-sun
You self-your-Acc success-dat reach-past-2sg believe-pres-2sg
‘You believe yourself to have succeeded’

(123) Direct Complement
An important observation of my informants is that, having the second person singular agreement repeated both in the embedded and the matrix predicate gives a feeling of redundancy. Also, the fact that there is no contrast between (118) and (119), or between the structures in (122) and (123) is much more clear when the embedded verb is inflected in the “past” rather than in the Perfective/Evidential with a different agreement form for the second person singular:

(118’’) (Sen), [ kendim i-
î -i başarı-ya ulaş-tı-n ] san-iyor-sun
  you self-your-acc success-dat reach-past-NoAgr believe-prog-2sg
  ‘You believe yourself to have succeeded’

(119’’) (Sen) [ kendim i- başarı-ya ulaş-tı-n ] san-iyor-sun
  you self-you success-dat reach-past-2sg believe-prog-2sg
  ‘You believe yourself succeeded’.

As for the {-DIK} complement in (124) below (48 of G&K 1981), it is grammatical in the intended meaning, and yields the emphatic meaning only when it does not bear the Gen-of a subject (119), since the occurrence of the genitive case marks the reflexive as the subject in these constructions; lack of it yields to an adjunct reading of the reflexive:

(124) sen, [ kendin - in başarı-ya ulaş-tıg-ın ]ı san-iyor-sun
You yourself-gen success-dat reach-DIK-2sg-acc believe-pres-2sg
‘You believe yourself to have succeeded’

(125) sen, [pro, kendin, başarı-ya ulaş-tığ-in ]ı san-iyor-sun
You yourself success-dat reach-Ger-2sg-acc believe-pres-2sg
‘You believe that you have succeeded yourself’=on your own’

The lack of case morphology on the reciprocal leads to its interpretation as an adjunct when there is no overt subject in the clause, independently finiteness of the clause. In a Root Clause the same holds: when the subject is pro, the reflexive has the emphatic reading as an adjunct (126):

(126) pro, kendim, kitab-ı oku-du-m
myself book-acc read-perf-1agr
‘I have read the book myself’

In brief, the reflexive binding test in G&K (1981) is not valid, in that it overlooks the properties of Turkish as a pro-drop language, where it is not possible to test a Nominative reflexive in the subject position, since the emphatic adjunct reflexive does not bear case morphology, just like its Nominative=Null subject counterpart. For the test to be valid, one has to have a lexical item like a sentential adverb that occurs only between the higher subject pro and the lower lexical subject reflexive. The only adverb that could occur in that position would be one like yalnızca, ‘only,’ that would focus on the lower subject. In this case, the adverb would be in the initial position of the lower clause. In it is so, the reflexive subject of a so called finite DC would indeed be bound by the higher lexical, or pro subject, but we would not be able to claim that it is outside the lower clause:
I only myself this job-acc do-can-1sg think-prog-1sg
‘I believe (that) only myself can do this job’

2.3.6.4. Test 4: Control

Infinitive+Agr constructions in Turkish are the real gerunds as discussed in section (4.1.1) above and occur with lexical subjects, just like in English: ‘my going’, etc. They are the ones that bear the identical Agreement morphology to Gen-Poss constructions. It follows that they cannot occur in Control environments with PRO unlike true infinitives; they can only occur with pro. In G&K (1981), however, they are regarded as infinitivals and the unavailability of PRO in INF+AGR Gerunds is given as evidence for their being finite in (128). The judgement and gloss in (128) belong to G&K 1981 (49 of G&K (1981)):

(127) (ben) [yalnızca kendim bu iş-i yap-abilir-im] san-iyor-um
I only myself this job-acc do-can-1sg think-prog-1sg
‘I believe (that) only myself can do this job’

(128) a. (Ben) sen-i [PRO\_\_\_ viski-yi iç -mey- ]e zorla-dı-m
I you-Acc whiskey-acc drink- Gerund(no Agr)-dat force-past-1sg
‘I forced you to drink the whiskey’

b. * Ben sen-i [PRO\_\_\_ viski-yi içme-n]-e zorla-dı-m
I you-Acc whiskey-acc drink-inf-2sg-dat force-perf-1sg

First of all, the very same infinitival morpheme {-MEK} is glossed as a Gerund
morpheme in George and Kornfilt’s data. The difference between the {-MEK} and the form observed in (128a) has been discussed extensively in Sezer (1988) and analyzed as the final stop becoming a glide intervocalically. Note that the dative morpheme attached to the infinitive consists of a vowel.

Secondly, in structures with Agr, not only in Turkish only but in all other languages where Agr licenses pro, it is rather unreasonable to assume PRO, as has been done in data (128b) of G&K (1981). In fact, Kornfilt (1996) discusses the absence of pro in infinitivals with agreement. The same structure in English requires a control subject and I believe analogy to English led to the analysis of this structure as a control structure. Secondly, the ungrammaticality is not due to the presence of Agr, but to the fact that Gerunds (INF-AGR) need a Postposition for (128b) to be grammatical as may be observed in (129) below:

(129) Ben sen-i, [pro, viski-yi içme-n] için zorla-di-m need to be pro

I you-acc whiskey-acc drink-inf-2sg for force-perf-1sg

‘I have forced you to drink the whiskey’ PRO in English

‘I have forced you in order for you to drink the whiskey’ NOT PRO in Turkish

This requirement of a Postposition Turkish INF+AGR Gerunds recalls the –ing of Gerunds in English (Abney 1987):

(130) John’s singing of the operas ....

DP
ru
John’s D’
2.3.7 Conclusion

To conclude, I have argued that G&K (1981) correctly diagnosed the fact that tense is not the relevant finiteness parameter in Turkish. On the other hand, I have argued that their arguments for the claim that the parameter relevant to finiteness in Turkish is Agreement do not hold. In Chapter 4, I will discuss other languages where agreement is analyzed as a Nominative case licenser, i.e. European Portuguese and Italian based on Raposo (1987, 1989), as well as Greek, based on (Iatridou 1993), and argue that it is possible to argue that, just as in Turkish, it is not agreement per se that is responsible for nominative case licensing in those languages.

It is correct that there is a contrast in terms of Nominative Case licensing, a property of finiteness between Finite Complements and ECM structures in Turkish. Yet, this cannot be tested in Turkish by the syntactic tools/tests developed on English, a language where tense is the parameter for finiteness. Both ECM and Finite DCs bear “tense” morphology, which in fact is argued to be Aspect in Turkish (Kennelly 1996); therefore, there is no contrast in constructions that test tense as a binding domain. We have seen that there is no contrast between ECM and Finite Complements in terms of Reciprocal Binding, Reflexive binding, occurring as subjects of Passives. If these tests test finiteness as a defining syntactic domain, both ECMs and FCs would be predicted to be finite! If that is the case, how come Accusative case is licensed on the subject? Therefore, if the presence of Nominative feature is what marks a clause as finite, we
need to find what type of feature is Nominative, since ECMs apparently lack it while FCs bear it. In the Chapter (4), I will argue that Mood and Epistemic Modality is what marks finiteness as such.

2.4. Conclusion to Chapter 2 and theoretical implications

In this chapter, I have presented two sets of arguments suggesting that clause-internal agreement is not a subject case licenser and not a finiteness parameter for Turkish. The first set of arguments is concerned with the genitive side of the GA/NO phenomenon, and the second set is concerned with the arguments of George % Kornfilt (1981).

2.4.1. Conclusions

I have argued that Genitive is licensed by an external nominal functional head. I adopt Miyagawa (1993) in maintaining that in Turkish noun complements, and Relative Clauses Genitive is licensed by the covert phrasal movement of the Genitive argument to Spec DP. I have provided other arguments to show that there is no substantial evidence to support verb movement to C in a verb final language like Turkish. Cross-linguistically, the alternation between a Nominative and Genitive refers to a meaning difference, hence a different syntactic structure in any given language (Altaic languages as well as Russian).

2.4.2. Theoretical Implications

In this part of Chapter 2, i.e. sections (2.1.) and (2.2.) I have proposed an analysis for genitive-case licensing on the subjects of various subordinate clauses in Turkish and have argued that the presence of agreement morphology on the predicates of these clauses does not suggest that *clause internal agreement* is a case licensing feature or head in Turkish, contrary to the previous claims (Kornfilt 2001, Hiraiwa 2001). In the next section of this chapter (2.3.), I will provide
further arguments to conclude that Agreement is not a case licenser and a parameter for finiteness, contrary to the claim in George and Kornfilt (1981).

Theoretically, a question within the bigger picture of GA/NO is “Why is this phenomenon observed mostly in SOV languages?”, which I leave to further research. A possible approach to explore is that the Null or lexical Head Noun in RCs and CNPs follow the predicate that is agglutinative. The determination of what licenses case relies on the inflections on the predicate, which are identical; hence the illusion that there is a free alternation. A typological property of most SOV languages is that their complementation strategy is usually a morpho-syntactic one rather than one with overt complementizers. Even in such languages with Complementizers (Japanese, Korean), the morpho-syntactic ‘nominalization’ is present. This so called ‘nominalizing’ morphology is misleading in terms of providing “identical” surface forms to different kinds of subordinate clause predicates that are inflectional rather than derivational in these languages. Some subordinate clauses do bear the Nominative Case feature on the head of the clause, some do not, and require an external/ECM type case licensing process. This research shows that it is the occurrence of a Head Noun or a functional projection D that licenses Genitive. In Nominative cases, there is no such mechanism available simply because it is not necessary (by economy principle). The feature configuration on the heads of these subordinate clauses are not identical. I will come back to this issue in the following chapters (specifically Chapter 4) as part of my proposal accounting for various kinds of clause structures available in the world’s languages.

In the following two chapters I will discuss Nominative case as Tense (Chapter3) and Nominative Case as Mood and Epistemic Modality (Chapter 4).
CHAPTER 3
Nominative Case as a Tense feature

&
Definiteness as a clausal feature

In this chapter, I will discuss Nominative Case as a tense feature. In section (3.1.), I will discuss the T-to-C analysis and Nominative as a Tense feature (uT) of Pesetsky & Torrego (2001). In section (3.2.), I will argue that a [+/- definiteness] feature at a clausal level can account for the properties of non-bridge verb complement clauses in English and Hungarian, which cannot be accounted for by P&T (2001). In section (3.3.), I will present the arguments and data of Enç (1991) and Pesetsky (1995a) and decouple the nominative case assigning feature/functional head and the head that is involved in the temporal interpretation. Based on data from English (Enç 1991, Pesetsky 1995a), I will argue that it is not necessarily TP that is involved in both nominative case licensing and temporal interpretation.

3.1. T-to-C Movement and subject-object asymmetries (Pesetsky & Torrego 2001)

I will review the previous analyses of subject-object asymmetry in English, as presented in Pesetsky and Torrego (2001), and discuss their arguments.

3.1.1. That-trace effect

In the ‘80s, the subject-nonssubject asymmetries discussion was based, in part, on the that-trace
effect (Perlmutter 1971):

 That-trace effect:

(1) Who do you think (that) Sue met ____?
(2) Who do you think (*that) ____ met Sue?

This effect is accounted for by a local government requirement on subject traces-the Empty Category Principle (ECP). The presence of that blocks the government relationship between the subject trace and some element in the C system. The relevant member of the C system is C itself (Rizzi 1990) or an intermediate trace of successive-cyclic wh-movement (Kayne 1980, Taraldsen 1979, Pesetsky 1982a). Lasnik & Saito (1993) account for the contrast in (1) and (2) by an indexing condition where head and spec need to agree with respect to the feature [+/- WH].

The P&T (2001) account proposes that the nominative subject-wh in (1) deletes both the $u_T$ and $u_{Wh}$ features on the embedded C, hence T-to-C is redundant, and by economy principle, yields to ungrammaticality. This analysis is based on the claim that that is merged into the derivation at T, and To-to-C is a movement of that to C. A question arises why that cannot stay at T. Since the account for the that-less example in (1) is that nominative subject “Sue” moves to Spec CP and deletes the $u_T$ on C, why would the derivation also have an option of merging that at T and moving it to C as an option despite its higher cost? An extra Merge followed by Move is definitely a redundant expense in a structure where the nominative subject can delete $u_T$ on C.

If that is in T, not C, then the analysis of P&T (2001) predicts a grammatical in-situ that in (2). In such a structure, that would remain at T since the nominative wh-subject would be attracted due to its wh-feature in any case and would delete the $u_T$ on the lower C on the way to the higher CP. But this prediction is not attested as clearly seen from the ungrammaticality of (2).
This analysis where \( uT \) on C is deleted by the movement of either T or Nominative subject needs to account for the position of the nominative subject in root clauses. In root clauses P&T (2001) would have to argue that the subject is always in Spec CP since there is no \( that \) in root clauses to delete \( uT \) on C. If \( that \) is T, there would be a need for an extra assumption not to merge \( that \) into the derivation when it is a root clause. P&T (2001), therefore note that root clauses should be IPs rather than CPs.

The second set of data shows the effects \( that \)'s omission:

(3) \textit{That-omission asymmetry} (Stowell 1981)
   a. Mary thinks [that Sue will buy the book].
   b. Mary thinks [Sue will buy the book].
   c. [That Sue will buy the book] was expected by everyone.
   d. *[Sue will buy the book] was expected by everyone.

The account for the contrast in (3a-c vs. d) is also based on a revised version of the ECP. When \( that \) is missing, an unpronounced element subject to ECP stands in its place (Stowell 1981, Kayne 1981a). The P&T (2001) account is the following: \( that \) has an interpretable tense feature since it is T itself, and T-to-C does not delete the \( uT \) feature for good at the end of the phase (lower CP). Therefore, a \( that \)-CP has an \( uT \) feature that is still alive, and therefore is attracted by the higher T in (2c). In a \( that \)-less CP, however, the \( uT \) is deleted by the nominative subject and it is no longer active for the higher T to attract; hence the ungrammaticality of (3d).

As pointed out by Huang (p.c.), this analysis cannot account for the ungrammaticality of \( that \)-less complements of non-bridge-verbs, or as commonly called \textit{manner of speaking verbs}.
If we assume P&T (2001) analysis, a nominative subject should be capable of deleting the \( uT \) on C, and (4b) would be expected to be grammatical. Similarly, T-to-C of *that* should allow the attraction of the embedded clause by the higher T in (4c) but the structure is ungrammatical contrary to P&T’s (2001) prediction.

Note that non-bridge-verb complements behave somehow like adjuncts to the extent that they are not required by the verb:

(5)  
\begin{align*}
\text{a. He muttered.} \\
\text{b. *He said.}
\end{align*}

But they are not as much an adjunct as the normal adjunct clauses in disallowing argument extraction:

(6)  
\begin{align*}
\text{a. What did John mutter that he would buy \_\_?} \\
\text{b. ?*What will John get angry unless you buy \_\_?}
\end{align*}

However, they do constitute weak islands, in that blocking adjunct extraction:

(7)  
\begin{align*}
\text{a. *Why did John whisper [that he was late t]]?} \\
\text{b. *How did John mutter [that I would fix the car]?}
\end{align*}

Stowell’s (1981) ECP analysis accounts for the properties of non-bridge verbs by arguing that these verbs cannot assign a theta-role to their complement clauses, and therefore, cannot theta-govern them.
Note that Hungarian non-bridge verbs are different. They pattern with English in not allowing the deletion of the Comp when the clause is in the complement position (8a). They can be pre-posed and yield a grammatical sentence unlike English (8b):

(8)  

a. Beno azt motyogta [*(hogy) a tanar hazudott]  
    Ben it-Acc muttered that the teacher lied  
    ‘Ben muttered that the teacher was lying’

b. [Hogy a tanar hazudott] azt Beno motyogta.  
    ‘It was Ben that muttered that the teacher was lying’ (Kenesei 1994)

Kenesei (1994) proposes another test to distinguish non-bridge verbs (manner of speaking verbs) from bridge-verbs (verbs of saying). Only non-bridge verbs allow a choice between the definite (D) and the indefinite (I) conjugation, whereas bridge verbs must take only definite conjugation:

(9)  

a. bridge-verbs  
    Beno azt allitott-al / *allitott-Ø [hogy a tanar hazudott]  
    Ben it-Acc claimed-D/*I that the teacher lied  
    ‘Ben claimed that the teacher was lying’

b. non-bridge verbs  
    Beno azt motyogt-a / motyogott-Ø [hogy a tanar hazudott]  
    Ben it-Acc muttered-D/muttered-I that the teacher lied  
    ‘Ben muttered that the teacher was lying’

Kenesei assumes an empty expletive within the embedded clause: when the verb has an indefinite conjugation it can assign no case to the expletive, so the clause is not visible for theta-marking. Therefore, Kenesei (1994) argues that the clause must be an adjunct licensed by the
verb. This accounts for the impossibility of pre-posing the clause in (10) below:

(10) *[Hogy a tanar hazudott] beno motyogott.
    that the teacher lied Ben muttered-IO

This analysis captures the differences clearly. However, the ungrammaticality of (10) could also be due to the assumption of Hungarian syntacticians that there is a null expletive in these structures. If so, it is predicted that we cannot prepose a clause and adjoin to the expletive. Moreover, there is a surprising fact about some verbs that would be classified as bridge-verbs like know, doubt in that they do not allow the deletion of the Complementizer:

(11) a. Azt tudom [* (hogy) az akku kimerult]
    it-Acc know-1sg (that) the battery dead
    ‘I know (that) the battery’s dead’

b. A sracok azt ketlik [(hogy) Olaszorzzagba mennek]
    The kids it-Acc doubt (that) Italy-Ill go-3pl
    ‘The kids doubt (that) they’ll go to Italy’

The verbs in (11) are of the class that must be stressed. Focus raising is argued to affect the deletability of the complementizer (Kiss 1987, Marac 1989). Focusing is possible by the obligatory movement of the verb to a higher projection. If this were the correct analysis, we would expect complements of non-finite verbs that do not need focusto allow deletion of the Comp; however, this is not the case:

(12) Butasag volt [azt hin- ni [(hogy) az akku kimerult]]
    Sillyness was it-Acc believe-INF that the batter went dead
‘It was a silly thing to believe (that) the battery was dead’

Hungarian and English facts are summarized in (13) below:

(13) English Hungarian

Mutter-type verbs

That is obligatory as complement 
* [that … ] as subject,
√ as a topicalized clause

Claim-type verbs

that is optional as complement
[that … ] is obligatory as subject

My analysis of that-effect, ungrammaticality of that-less clauses in subject position and as complements of non-bridge verbs, and similar yet minimally different Hungarian facts, is found in that what is at play here has to be [+/-definiteness]. Deletion of Comp renders the clause [-definite] and this is prohibited when the clause needs to be preposed to the sentence initial position reserved for [+definite] clauses. I will argue in the next chapter, that that is a Comp, and following Frazier (1997) and Melvold (1991), that its occurrence is necessary as a Modality marker, as well as the definiteness marker bearing the uF on C in definite clauses. Non-bridge verbs subcategorize for [+definite] complements and therefore do not allow that-less complements. This also accounts for the adjunct-like, weak island effects of non-bridge verbs. Recall that factivity entails definiteness and factive clauses have an island effect as well. It is possible that non-bridge verbs, i.e. manner of speaking verbs, focus on manner, and presuppose
The third set of data on subject-object asymmetry refer to the obligatory or inapplicable nature of T-to-C in questions depending on whether subject or object wh is moved:

(14)  * T-to-C movement asymmetry (Koopman 1983)

a. What did Mary buy?

b. *What Mary bought?

c. *Who did buy the book? [unless did is focused]

d. Who bought the book?

In Koopman (1983), no account is given for (14b). The ECP account for the ungrammaticality of (14c) is that T in C blocks the government relation between the trace of wh in subject position and the wh in Spec CP.

The P&T (2001) account of the data set in (14) is that when the wh-element is a Nominative subject-wh, it deletes both the uT and the uWh on C in (14d), therefore T-to-C is redundant and hence ungrammatical in (14c). When the wh-element is not a subject-wh, T-to-C needs to accompany wh-movement (14a) since the non-Nominative wh does not bear an uT and cannot delete the uT on C (14b).

P&T (2001) note that the morphology of nominative case does not co-vary with choice of present, past, or future. The only instance is Pitta Pitta where future tense is marked on the nominative subject DP, but no other tense is. Claire Bowern (p.c.) notes that future tense is also marked on accusative objects and the subject tense marking would in fact be better described as a tense based alternation in split ergativity. In Classical Arabic, the suffixes that mark nominative are identical the mood morphology of the imperfective indicative verb…” (Benmamoun 1992, 2000). Therefore, they argue that “the features we are calling T are more properly analyzed as
some other member of the tense-mood-aspect system (P&T 2001:365).” This suggestion is at the core of the claim made in this dissertation.

A problem that P&T note for their analysis is the grammaticality of sentences like (15) and (16):

(15) [Which book Mary read yesterday] is not known.

The problem is the following: If $uT$ on interrogative C lacks EPP in English (unlike Belfast English), then T has not moved to C. $uT$ on C entered an Agree relation with the Nominative subject. The C does not contain T, just like an ungrammatical *that-less* finite clause in the subject position (13d). P&T’s (2001) attempt to solve the problem is to argue for a feature movement instead of Agree, which fails in (16) where *wh*-phrase is Nominative:

(16) [Which person read the book] is not known.

The nominative *wh*-subject would be expected to delete the $uT$ on C and render the clause inactive for attraction by the higher T in (15). P&T (2001) extend the lifespan of the $uT$ on the lower C to solve the problem: If $uT$ on C were alive, there would be no problem:

(17) **Feature lifespan**

A feature F on $\alpha$ marked for deletion disappears at the end of the CP cycle unless F on $\alpha$ is an attractor and is [-EPP].
There is, however, a simpler account for the unavailability of *that*-less clauses that lack T-to-C in the subject position and the availability of structures in (15) and (16) where clauses with no T-to-C are allowed to occur in the subject position. The crucial phenomenon to account for these facts is *definiteness*. It is a well-known fact that the clause initial or subject position is within the ‘restrictive domain,’ in the sense of Diesing (1992), and allows definite elements. Pesetsky (1989) notes a D-linking effect, where definite *wh* phrases are allowed to be extracted out of islands and *wh*-move to sentence initial position. Note that both the subject and the object *which* phrases in (15) and (16) are definite, and that both of them move to Spec CP. They function identically to a Complementizer *that* in CP to mark both clauses as [+definite]. [+definite] clauses are attracted by the higher T simply because they bear a definiteness feature, which might be the reason why the lifespan of $uT$ is extended in definite clauses.

### 3.1.2. Definiteness as a Clausal Property


Ogawa (1997)’s proposal is given below:

\[(18) \begin{align*}
\text{(i)} & \quad \text{Just as D, every T has a } [+/-] \text{ definiteness feature: not a semantic feature but a formal feature;} \\
\text{(ii)} & \quad \text{These features may also function as a variable when there is an appropriate binder.}
\end{align*}\]

The idea that T is divided into two classes in terms of definiteness is first proposed by
Tsoulas (1995). The asymmetry in (19) shows that wh-movement is possible only from an indefinite noun phrase. Tsoulas (1995) argues that the contrast between (20a-b) can be captured under the same line of reasoning if the simple past tense in a finite clause is definite and the tense in a control complement is indefinite:

(19)  
   a. * What do you want to see [these pictures of]?  (D=definite)  
   b. What do you want to see [a picture of]?  (D= indefinite)  

(20)  
   a. * What do you wonder [to whom John gave]?  (T= definite)  
   b. What do you wonder [to whom to give]?  (T=indefinite)  

Note that the embedded clause in (20a) is a tensed/finite clause, and that the ungrammaticality of the structure is not due to definiteness, but illegitimate wh-movement within the lower clause. Ogawa (1996) extends this proposal to every T. The <+definite> feature is involved in all cases in (21), since they refer to a certain temporal point. This idea of a temporal point is what Pesetsky (1995a) calls punctual, which also interferes with the licensing conditions of ECMs and for in for-infinitives.

(21)  
   a. $_{TP}$ John $[^T T <+definite>] [_{VP} left the room] at three].  

   (simple past tense sentences)  

   b. $_{TP}$ firemen $[^T T <+definite>] [_{VP} are available]].  

   (stage-level statives)  

   c. John believes $_{TP}$ Mary $[^T (to) <+definite>] [_{VP} be sick]].  

   (ECM complements)
Ogawa’s analysis is that the <-definite> feature is involved in (22), since they do not refer to temporality at all, or that they refer to an “unrealized” temporal point in the sense of Stowell (1981, 1982):

\[(22)\]

a. \[\text{TP} \quad \text{John} \quad [\text{T} \quad \text{(will) <-definite>} \quad [\text{vp} \quad \text{win the prize}]]\].

\text{\textit{\(\text{future tense sentences}\)}}

b. \[\text{TP} \quad \text{John} \quad [\text{T} \quad <-definite>} \quad [\text{vp} \quad \text{is intelligent}]]\].

\text{\textit{\(\text{individual-level statives}\)}}

c. \[\text{TP} \quad \text{John} \quad [\text{T} \quad <-definite>} \quad [\text{vp} \quad \text{is/was usually late}]]\].

\text{\textit{\(\text{generic/habitual statements}\)}}

d. John tried \[\text{TP} \quad \text{T} \quad \text{(to) <-definite>} \quad [\text{vp} \quad \text{win the prize}]]\].

\text{\textit{\(\text{control complements}\)}}

Without getting into other problems with such a categorization of the embedded clauses as \([+/- \text{ definite}]\), I will point at a different aspect of this analysis. Considering that an overtly marked tense marks definiteness, the formal \([+/-\text{definite}]\) feature must be an interpretable feature on T. Since T on D is also an interpretable feature according to P&T (2001), then there would not be an operation of Move to delete features to the Spec of TP. Therefore, definiteness would not be a motivation for the movement of DP to Spec TP; such a movement is motivated by \(\nu T\), independently of definiteness feature. As such, definiteness as described by Ogawa (2001) would not help us with the English and Hungarian subject-object asymmetry facts.

### 3.2. What does definiteness mean at a clausal level?

Ogawa’s (1996) description of definiteness is based on the theory of definiteness developed on DPs but adapted to CPs. In this sense, the punctuality of the event in a temporal domain is what makes T definite. This approach is insightful in terms of what traditional grammarians call
the *definite past, witnessed past*, etc. The syntactic and semantic nature of the feature is not clear and apparently, the analogy to the theory of (in)definiteness in nominal phrases does not suffice to serve the purposes of clausal syntax.

In current syntactic theory, a property of subordinate clauses that has syntactic relevance in terms of islands effects, is *factivity*. A set of verbs, such as *reveal, deny, confess* are defined as selecting *factive* complement clauses as opposed to verbs like *believe* that select *non-factive* complements. In simple terms, *factivity* means that the complement clause is presupposed to be true (Mevold 1991). Definiteness is also defined as presupposition. The former is a property of clausal structures, commonly used to refer to a property of arguments. In this section, I will argue that subordinate clauses bear a definiteness feature similar to DPs. Just like the movement of an NP to the Spec of a nominal functional head (D or K), or the occurrence of an overt D (definite article) licensing definiteness at a phrasal level, I will argue that the occurrence of certain Complementizers in languages like English and Hungarian licenses Definiteness at a clausal level. In languages like Turkish, Tuvan, and Kazakh, the nominal agreement on the head noun of a complement clause marks/licenses definiteness, and allows the clause to occur in syntactic positions where definite arguments appear, i.e. sentence initial position. In the complement position, null head is allowed and the clause is definite by virtue of case morphology attached to it (Chapter 2).

### 3.2.1. The syntactic properties of *factive* clauses

The generalization on the syntactic properties of *factive* clauses is the following (Mevold 1991): Extraction of argument from *factive* complements results in a weak violation (23 a,b) whereas the extraction of adjuncts from *factive* complements results in strong violation (24a,b).
Extraction of *wh*-phrase out of *non-factive* complements does not trigger any violation (23c-24c).

(23) **Argument extraction** [Mevold 1991]

a. ? Who did Fred confess that he fired ____?
b. Who did John believe that Sue invited ____?

(23a) is an example of a weak island effect in argument extraction out of a *factive* complement clause; (23b) is an instance of a totally grammatical argument extraction out of a *non-factive* complement clause.

Consider the three-way contrast in grammaticality in (24) below.

(24) **Adjunct extraction**

a. *How did you reveal that Anne fixed the car ____?* [+factive, +definite]
b. ?How did you think that Anne fixed the car ____? [-factive, +definite]
c. How did you think Anne fixed the car ____? [-factive, -definite]

(24a) shows the strong violation caused by extraction of an adjunct out of factive complement clause; (24b) is an instance of the same extraction out of a non-factive complement clause. The difference in the degree of ungrammaticality between (24a) and (24b) suggests that extraction out of a factive clause (24a) is a violation stronger than extraction out of a definite clause (24b), based on the argument that the occurrence of the complementizer marks definiteness. As reported in Huang (1982, 1998), many speakers consider (24b) ambiguous, exhibiting no “adjunct *that*-trace effect”.

Note that the structure in (24b) becomes grammatical when the Complementizer is
omitted (24c). The contrast in (24b) and (24c) suggests that the Complementizer has a definiteness effect, and allows extraction when omitted.

The idea that there is a connection between definiteness and factivity was mentioned in Huang (1982, 1998) concerning the Definiteness/ Specificity condition. Huang cites Givon (1972) for the observation and incorporates it as an instance of opacity.

Building on the previous work on the topic, Mevold (1991) also argues for a connection between factive islands and definite NP islands. She argues that the [+definite] in Spec CP and [+definite] in Spec DP have similar effects:

(25)  Factive and NP-islands (Mevold 1991)

a.  [+definite] in Spec CP

CP can be a factive complement (with presupposition of the event) just in case Spec CP is marked with [+definite] complementizer, filled by an iota operator binding the open event argument in the complement. The Spec CP cannot be an escape hatch since it is filled by an operator.

b.  [+definite] in Spec DP

NP is definite when its functional head is [+definite]. Spec of DP whose head is [+definite] is filled by an iota operator binding the open position of NP. Thus, the Spec of DP cannot be an escape hatch for the extraction of elements within its NP complement.

Factive complements exhibit a definiteness effect in that they require the complementizer *that*, while non-factive complements do not:
(26)  
a. Mary perceived *(that) Bill was anxious to leave.  
b. Bill believed (that) John voted for Reagan.  

Only factive *that*-clause can be preceded by ‘the fact’, or by ‘it’ (Kiparsky & Kiparsky 1973, Mevold 1991).

(27)  
a. John ignored it/the fact that Bill was in serious danger.  
b. *John thinks it/the fact that Bill is in serious danger.  
c. *Bill suggested it/the fact that Aaron was hiding in the closet.  

Weak island effect of a *factive* complement is similar to that of a definite NP (Huang 1982, 1989):

(28)  
a. ?Who did John find the picture of ____?  
b. Who did John find a picture of ____?  

Note further that *non-bridge verbs* require the presence of a complementizer *that* behave similarly to *factive* complements in terms of adjunct extraction:

(29)  
a. *How did you regret that Sue fixed the car ____? (factive complement)  
c. *How did you mutter that Sue fixed the car ____? (NBV-complement)  

_Factive* verbs disallow the omission of *that* as do non-bridge verbs:

(30)  
a. I deny that he will come.
b. 

*I deny he will come.

The syntactic effect of the complementizer *that* in non-factive complements, as well as factive ones, suggest the need for a feature other than [+/-factive] on subordinate Cs. The most likely candidate is a [+/-definite] feature.

In order to explore what a (in)definite T, and a CP might mean in syntactic terms, I will assume a simple phrase structure given in (32) below. I will call the functional head that bears a finiteness feature that licenses Nominative Case on the subject a F(inite)P(hrase). The manifestation of the finite inflection may be Tense, Modality or Aspect in any given language.

(32) *A simplified uniform phrase structure for any given language*:

(left-branches are head positions; Specs are omitted for the sake of simplicity)

\[
\begin{align*}
CP &= \text{Mood} \\
\text{ru} &\quad \text{FP} = (TP/\text{MOD}_{\text{Epistemic}} P) \\
\text{ru} &\quad \text{AspP} \\
\text{ru} &\quad \text{vP} \\
\text{ru} &\quad \text{VP} \\
\text{ru} &\quad \text{DP} \\
\text{ru} &\quad \text{[iφ]}
\end{align*}
\]

*Uninterpretable* features need to be deleted by *interpretable* features that match either by
Agree or move.

Assume that C bears a Mood feature which is involved in licensing the Nominative case. The possible manifestations of such features would give the following kinds of Cs and relevant clauses in (33). In this classification any given Root C would have the options of having [+/−indicative] mood features resulting in a different type of clause. Indicative root clauses would be [+factive] by definition and subordinate indicative CPs would have the option of being either [+factive] or [−factive], depending on the verb that selects them. In this sense, the [+finite] branch of [+IND] C refers to root clauses and finite subordinate clauses, whereas the non-finite branch refers to subordinate clauses only. [−indicative] CPs are [+finite] and [−factive] by definition as is observed in subjunctives, imperatives, etc in many languages.

(33) Possible feature configurations on the C and Finiteness Head of clause structures
(FP= Finiteness Phrase; Def/D= Definite)

<table>
<thead>
<tr>
<th>wp</th>
<th>+ INDICATIVE C</th>
<th>-INDICATIVE C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ru</td>
<td>+ Finite</td>
<td>+ Finite</td>
</tr>
<tr>
<td>FP</td>
<td>-Finite</td>
<td>+ Finite</td>
</tr>
<tr>
<td>ru</td>
<td>+Fact</td>
<td>+Fact</td>
</tr>
<tr>
<td>ru</td>
<td>-Fact</td>
<td>-Fact</td>
</tr>
<tr>
<td>+Def</td>
<td>+/-D</td>
<td>+Def</td>
</tr>
</tbody>
</table>
[+Factive] would be [+ Definite] by definition, and Non-Factives would be definite or non-definite. The [+/−Def] feature on a non-indicative clause would alternate depending on the dependency of the clause. As a root clause, it would be [−Def] due to lack of a Comp, and as a subordinate clause it would be [+Def] due to the presence of a complementizer.

Consider (34) below:

(34) a. I ordered that John be on time.
b. *I ordered John be on time.
c. I ordered John to be on time.

The structure of the complement clause in (34a) is a non-indicative clause where the Nominative on the subject is licensed in the absence of tense. In (34b), the omission of the Comp that renders the structure ungrammatical although “order” is not a verb that subcategorizes for a factive complement clause. (34c) is not a non-indicative clause. I suggest that the obligatory nature of Comp in (34a) is due to the requirement of a filled Comp to allow a [+Definite Clause] in English.

To conclude, consideration of the feature [+/− definite] at a clausal level, which is marked by the occurrence of a complementizer in English and Hungarian helps us understand the ‘optional’ nature of a complementizer that in complement clauses, the obligatory nature of that in non-bridge verb complements, as well as the obligatory nature of that in sentence initial position (subject or topic position). We do not need to assume that the complementizer that is in fact Tense that has moved to C to delete a uT feature. It seems that that, as a complementizer, allows us to give a simpler account of facts.

In the next section, I will discuss tense-less structures in English to explore what exactly
licenses Nominative case, and what allows the temporal interpretation in these structures in the absence of tense.

3.3. **Tenseless English**

Enç (1991) builds on Kratzer (1989) and provides a new account of differences between stage- and individual-level predicates in sentences, generally thought to be marked for present tense.

3.3.1. **No Present Tense in English**

Enç (1991) argues that the way we can detect hidden mood markers is by their interaction with factors connected to tense. She discusses past and present tense uses of a stage-level predicate like *sing*:

(40)    a. Mary sang the *Marseillaise*.
        b. Mary sings the *Marseillaise*.

The past tense example in (40a) may be true, provided there is an interval prior to the time of utterance in which Mary sings the *Marseillise*. Enç notes that if the form in (40b) is interpreted analogously as present tense, we expect (40b) to have a reading that is true if Sally sings during the time of utterance. There is no such reading. (40b) can only be interpreted as something like (41a) or (41b):

(41)    a. Mary always sings the *Marseillaise*.
        b. Mary generally sings the *Marseillaise*.

In (41), there are numerous intervals in which Sally is singing depending on the adverb of
quantification. Enç proposes that such verbs contain an open position identifiable with Kratzer’s $l$-position and it has to be bound. The past tense morpheme and the adverbs of quantification have the capacity to bind the $l$-position associated with *sing*:

(42) Mary sang the *Marseillaise*.
    Past, $[^{\text{sing}} (\text{Mary, song 1})]$

(43) Mary always sings the *Marseillaise*.
    Always, $[^{\text{sings}} (\text{Mary, song, 1})]$

There is no present-tense analogue to the past-tense morpheme in (40a) with the capacity to bind the open $l$-position. Sentences interpreted as present tense are interpreted due to a default procedure that identifies the tense of time-less sentences with the evaluation time. Pesetsky refers to the so-called “present tense” in English as “tense-less”, which he distinguishes from “non-finite.” When there is no adverb or other binder in a tense-less finite sentence, the result is an unbound $l$-position:

(44) Mary sings the *Marseillaise*.
    *[^{\text{sings}} (\text{Mary, French}) ]

If the hypothesis that the Nominative Case licensing feature is not necessarily a tense feature, but a mood-based finiteness feature as will be proposed in Chapter 4, a tense-less clause can indeed have a nominative subject and be grammatical as observed in (44) and (45). The prediction of this analysis is that such verbs should be grammatical in a tense-less form, which they are:
(45) Mary knows French.
     [knows (Mary, French)]

     The absence of an *l*-place in individual-level predicates means that there is no temporal position that needs to be bound. I take this to be an indication of no tense to denote temporal information.

     Copular and progressive *be*, as well as perfective *have* count as individual-level predicates even if their complement is stage-level:

(46)  a. Mary is singing the *Marseillaise*.
     b. Mary is drunk.
     c. Mary has sung the *Marseillaise*.

     Enç (1991)’s arguments presented in this section provide an insight into structures where lack of tense does not render the structures non-finite. If finiteness is marked with Nominative Case, the relevant finiteness feature is licensed by mood that is present in any of these constructions. The spatio-temporal *l*-place is bound by implicit adverbs of quantification for a temporal interpretation. However, the feature licensing Nominative is a mood feature.

3.3.2. Modals

The question Enç discusses is what binds the *l*-place in *if*-clauses licensed by an epistemic modal like *must*, that is, what allows the temporal interpretation in structures like (47) below:

(47)  a. If John talks to Mary, he must drink champagne.
     b. If John sings that out of tune, he must sing in the shower.
c. If Sue breaks her leg, she must ski with the children.

Either the modal in the matrix clause binds the l-place associated with the predicates in (47), or else some other element does. The examples in (47) have only a generic interpretation for the antecedent and consequent clauses; therefore, the epistemic modal must cannot be a binder; the binder must be an implicit adverb of. The same is observed in similar examples as root clauses (48) (Enç 1991):

(48) a. Sally must drive to school.
b. John must sing in the shower.
c. They must ski with the children.

In the epistemic reading of must, the un-tensed verb in (48) is interpreted as generic, which is expected if an implicit adverb of quantification is the only available binder for the l-place of verbs. In these environments, Enc (1991) assumes an existential closure binding the l-place. The existential closure is triggered by the tripartite logical form (quantificational term, restriction, nuclear scope in Heim (1982) that is motivated by the presence of a modal.) What licenses the Nominative case in such modal constructions where overt tense morphology is absent, is the finiteness feature on the F(initeness) Phrase, which I have argued to have a Modal nature.

Enç (1991) notes that not all epistemic modals behave like this. The “emotive” modal should in a factive clause binds an l-place like tense. It is shown that this is not a property of factives in general, but a property of should as may be observed in (50a,b), which lacks should. The embedded verb can only receive a generic interpretation, whereas no such interpretation is
necessary with *should* in (49):

(49)  
   a. That John should sing the *Marseillaise* is upsetting.  
   b. I resent it deeply that you should sing the *Marseillaise*.

(50)  
   a. That John sings the *Marseillaise* is upsetting.  
   b. I resent it deeply that you sing the *Marseillaise*.

Pesetsky (op cit) does not have an explanation for the difference between *must* and *should* in this respect. In certain *factive* clauses a characteristic epistemic modal appears to act like tenses and adverbs of quantification in binding the *l*-position posited by Kratzer (1989) and Enc (1991) for stage-level predicates.

The generic interpretation of the embedded factive clauses might be explored through the resemblance of generic and factive operators, which I am leaving for further research. The lack of generic interpretation in structures with the modal *should* might be due, similarly, to the presence of an overt modal that binds the *l*-place. The difference between *must* and *should* is apparently due to the epistemic nature of *must* since only the epistemic reading occurs in contexts where the verb is interpreted as a generic. The least we can say is that, as noted above, epistemic modals are not *l*-binders and in structures where they occur *l*-place is bound by an implicit quantificational adverb. When the *l*-place is bound by a quantificational adverb, the adverb might behave as a generic operator. With *should* however, *l*-place is bound by the non-epistemic modal, hence no generic interpretation.

If a Finiteness Head that is basically a kind of epistemic modality head responsible for Nominative Case licensing, then what Enç shows above in terms of the incapability of epistemic modals in binding the *l*-place indicates that the Noninative Case licensing head is not necessarily involved in temporal interpretation. Such an approach is significant in terms of its implications
for the functions attributed to tense head and tense in general so far. Tense might be relevant neither as a feature for Nominative Case licensing, i.e. finiteness, in my terms, nor as a sole binder for a variable responsible for temporal interpretation. I am leaving this potentially promising approach for further work.

3.3.3. Mood, Epistemic Modals and Adverbs of Quantification

Pesetsky (*op cit*) introduces a paradigm where mood, epistemic modals and adverbs of quantification cluster together: Implicatives (*manage*-class verbs) disallow *for*, factives (*hate*-class verbs) allow *for* in the absence of a punctual reading aspect:

(51) *Implicatives* [Pesetsky’s (190)]
    a. Bill didn’t bother (at all) *(for)* Mary to leave.
    b. John managed (finally) *(for)* Tom to get funding for the conference.

(52) *Factives* [Pesetsky’s (191-3)]
    a. John would hate/must hate for his students to smoke in class.
    b. John always hates for his students to smoke in class.
    c. *John hated for his students to smoke in class.
    d. Sue would/must prefer/always prefers for us to meet in the conference room.
    e. *Sue preferred for us to meet in the conference room yesterday (unless generic).

The corresponding Turkish data shows explicitly the need for genericity in structures like (52e) because in such structures the perfect morpheme {-DI} would occur with a genericity marking morpheme, the so-called aorist (modal/generic) {-(/I)r} for a grammatical reading (53a) as opposed to a regular perfect morpheme, where the meaning would be factive yet non-modal/generic (53b):
Pesetsky shows that this an aspectual condition imposed on factives, ECM (and on *for*), and takes this aspectual condition to be *irrealis* mood, that is a lexical property of *want*. I will argue that the aspectual property is in fact a *definiteness* property of clauses with perfect aspect/past tense (both of which are punctual in terms of Ogawa 1996) that clash with the feature specifications of [-Indicative] mood. In the classification of clause types with certain feature combinations that I propose, an *irrealis* C with an [-Indicative] mood feature would be heading a necessarily [-Factive] [-/+Definite] IP/FP. This is further supported by the lack of perfect aspect or past tense that is not accompanied by a modal (possible worlds) in subjunctives, conditionals, etc. Such constructions do not allow [+def] clauses.

The factives (hate-class verbs) in Pesetsky co-occur with modals or generic operators in (52) above. The obligatory nature of *for* can be accounted for by two overlapping requirements: *for* is a modal complementizer as shown by Frajzengier (1998) and required by the matrix modal
clause; factive verbs require an overt complementizer, as shown in section (3.2) above.

As for the same condition applying to ECMs, Pesetsky shows that unless the semantics of the matrix clause mirrors the semantics of the complementizer of *for*, ECM is blocked. The non-propositional nature of clauses introduced by *for*, as opposed to the propositional nature of *that*, is clear from the data below: (From Bach 1977):

(55)  

a. That the earth is round is true.

b. *For the earth to be flat is true.

According to Pesetsky (op cit) that is why ECMs are not blocked with matrix verbs like *want*: they have a lexically inherent *irrealis* mood, with the semantics of *for*. The insight and observation is true to facts. I will argue that these facts find a simple explanation once we introduce the clause types according to their mood features. Clauses with verbs like want that include possible worlds semantics have [-IND] mood feature. Such verbs occur in [+finite, -factive, -definite] clauses have two options for complement clauses: they either select ECMS that are [-finite, -definite] or *for* infinitives that are [-finite, -definite] and [+modal]. ECMs lack modality by definition, as has been argued before. They allow only as high as an AspP in English. The [-def] and [+mod] property of *for* clauses may be tested in their distributional properties that contrasts with *that* clauses (except for non-bridge-verb complementizers): They occur as complement clauses, but never as subject clauses:

(56)  

a. I would love [for the earth to be flat].

b. *[For the earth to be flat] is true.
The fact that counterfactual *would* and *might* license both ECM and *for* while *must* reduces the level of acceptability is because when non-epistemic, *must* is a morphological manifestation of finiteness head to license Nominative in [+Indicative clauses]. When it is epistemic (denoting the highest possible probability), it occurs in a [-IND] clause that is [+finite] by definition and can license ECM. Yet the only environment where *must* is clearly epistemic, and not ambiguous with a deontic reading, is the structures where it occurs with *be*, which does not take a clausal complement; therefore, we cannot test it. The reduction in the level of acceptability of structures where *must* has an ECM complement is due to the ambiguity of *must*.

The reason why factive verbs do not select ECM is simply the lack of an overt complementizer in ECMs, which is obligatory in factives. Japanese ECMs are very instructive at this point. Japanese ECMs allow modals (Susumu Kuno, p.c.) and they do not need the semantics of *for*, as Pesetsky calls it, in their matrix verbs.

3.4. **Conclusion**

I have argued that [+/- definite] feature at a clausal level can account for instances of subject-object asymmetry at a clausal level. I have shown that [+/- definite] feature accounts for the syntactic distribution of non-bridge-verb complements in English and Hungarian.

Based on arguments from Enç (1991) and Pesetsky (1995a), I have argued that a featural configuration on different types of clauses can account for the occurrence of Nominative case subjects in *tense-less* clauses in English. *Tense-less* here is not only in the sense of Enç (1991) and Pesetsky (1995a), but also as observed in non-indicative root and subordinate clauses,
indicative clauses with epistemic modality, none of which bear *tense*, but which do have a finiteness feature based on mood on C and T or a finiteness feature based on Epistemic Modality on C or T, which licenses Nominative Case and renders the structures grammatical.

I have tried to show that the functional head responsible for temporal interpretation need not be the head that licenses Nominative case, and as such Nominative Case is not necessarily a tense feature on D.

In the next chapter, I will argue that the feature that licensing Nominative case is a composite feature consisting of *mood* and *Epistemic Modality*. In this respect, I will depart from P&T (2001)’s analysis that Nominative case is the *same T* feature on T and C. I will argue that it is in fact a composite *finiteness* feature. I will also discuss the conceptual and syntactic relation between mood and modality, and present distributional argument based on Turkish, and other languages where Agreement is argued to be a Nominative Case licensing feature or functional head, to support this proposal.
CHAPTER 4

Epistemic Modality and Mood as Finiteness

&

Mood marked with Agreement

The goal of this chapter is to show that Nominative case licensing is related to a feature in the Complementizer (C) system and a feature in the Inflection (I) system. Based on distributional evidence from Turkish, I will argue that the I component of Nominative licensing feature is in fact an Epistemic Modality feature. Based on the semantic relation between mood and modality as well as empirical facts from Turkish, European Portuguese, Italian, Catalan, Greek and English, I will argue that the C component is a mood feature. For English, I will argue that the analysis for Turkish might be extended to English if we adopt Lyons (1977) and assume that Tense is a kind of Epistemic Modality. I will argue that a uniform ECM hypothesis follows from the proposal that Nominative Case is licensed by a complex feature composed of epistemic modality and mood. In section (4.1.), I will present empirical evidence from Turkish to support this theory. In section (4.2.), I will discuss epistemic modality as tense based on Lyons (1977). In section (4.3), I will discuss the syntactic and semantic relation between mood and modality, discuss their dependency in licensing Nominative case and propose a cross-linguistic hypothesis on ECMs. In section (4.4), I will give a classification of clause types based on what features are available on the functional heads of the clause. A mood-based classification of agreement paradigms in Turkish and its relevance for syntactic (in)dependence of clauses are presented in
sections (4.5. & 4.6.). Section (4.7.) concludes the chapter.

4.1. Epistemic Modality as Nominative-Case licenser in Turkish

The question I address in this section is what licenses Nominative Case in Turkish if it is neither “Tense” nor Agreement as has been discussed in Chapter 3. To explore the issue, I will investigate clauses with Nominative subject, where the inflectional morphology on the predicate is identical across these clauses, and also, ECM Accusative subject structures with the same inflectional morphology. Distributional properties of epistemic modal morphemes in these clauses shows that the presence of Epistemic modality licenses Nominative Case in Turkish.

Data (1) below is a simple root clause in Turkish:

1) Kürşat-∅ gel-di-∅.
   -Nom come-Perf/Past-3 s.agr
   ‘Kürşat came/has come’

As far as the surface form goes, the so called “Finite embedded complement clause” in (2) below is identical to the root clause in (1):

2) Ben-∅ [Kürşat-∅ gel-di-∅] san-dt-m.
   I-Nom -Nom come-Perf/Past-3sg think-Perf/Past-1 s.agr
   ‘I thought Kürşat came/has come’

These finite complement clauses are selected by a set of verbs that also select ECM complements:

3) Ben-∅ [Kürşat-ı gel-di-∅] san-dt-m.
I-Nom -Acc come-Perf/Past-3sg think-Perf/Past-1 sg
‘I thought Kürşat came/has come’

The clause in (1) appears in another argument position, that of a subject, in two constructions:

(4) a. As the complement of a Predicate/Substantive Negative, normally used to negate non-verbal predicates:
   b. [Kürşat-∅ gel-me-di-∅] değil-∅.
      -Nom come-Neg-perf/past-3sg not-3 arb.
‘It’s not the case that Kürşat came/has come’

(5) a. As the subject of passive constructions:
      -Nom come-perf/past-3sagr think-pass-prog-3 arb
‘It is thought that Kürşat came/has come’

A possible way to approach the topic is to see whether the ‘finite clause’ in a root clause and the one that occurs in an argument position allow the same inflectional morphology.

4.1.1. Root Clauses (RCs) in Turkish:
Root Clauses in Turkish allow both indicative and non-indicative clauses. They allow Indicative structures with any inflectional morphology (Verbal Agr_1):

(6) Kürşat-∅ gel-di-∅ / gel-ebilir-∅, ……
    -Nom come-perf/past-3sagr come-may-3sg
‘Kürşat came/has come/may come’
There are some unacceptable inflectional morpheme strings observed in Aygen-Tosun (1998): Epistemic Modality cannot co-occur with Aspect morphemes; it is interpreted as Deontic Modality when it occurs with Aspect morphemes:

(7) Kürşat gel-ebil-iyor
    come-able-prog
    ‘Kürşat is (being) able to come’

(8) Kürşat gel-ebil-miş
    come-able-reportive/perf
    ‘Kürşat is said to have been able to come’

(9) Kürşat gel-ebil-ecek
    come-able-fut
    ‘Kürşat will be able to come’

(10) Kürşat gel-ebil-di
    come-able-perf/past
    ‘Kürşat was able to come’
    Epistemic modal morpheme regularly occurs with the (modal/generic/habitual) morpheme, the aorist –(I)r/(E)r.

(11) Kürşat gel-ebil-ir
    come-may/can-aorist
    ‘Kürşat may/can come’ (=Epistemic)

Modal morphemes in Turkish are ambiguous among various types of modality, unless
disambiguated by a modal adverb (Aygen-Tosun 1998, 2000a):

(12)  a. Kürşat-Ø  gel-ebil-ir.
    -Nom  come-Mod-aor
     i. Kürşat can come. (abilitative)
     ii. Kürşat may come. (epistemic)
     iii. Kürşat may come. (permissive)

Root Clauses occur in *Non-Indicative* (Optative) structures with a verb and subjunctive agreement (that I will call Verbal Agr₂ although this agreement also occurs with substantive predicates):

(13) Kürşat-Ø  gel-sin.
    -Nom  come- 2sg agr₂

‘Let/May Kürşat come’

Root Clauses occur with *Conditional* (*realis/irrealis*) antecedent clause with some restrictions on the matrix verbal morphology (Verbal Agr₁):

(14) Kürşat-Ø  bil-se-ydi-Ø,  gel-ir-di-Ø.
    -Nom  know-cond-perf/past-3sagr  come-mod-perf/past-3sg

‘If Kürşat knew, he would come’

The restrictions on the co-occurrence of certain morphological strings are illustrated below: (Aygen-Tosun 1996):

(15)  a. *Gel  -miş  -ti  -yse
    come+perf+perf+cond

‘If he had come’
Some of these restrictions can only be accounted for by either morpho-syntactic restrictions on the number of inflectional morphemes (Göksel 1998), or by redefining the semantic nature of the inflectional morphemes. The tradition of assuming inflectional morphemes to be porte-manteau morphemes with multiple functions, and calling them Tense, Aspect and Modality (TAM) makes these restrictions implausible. For instance the morphemes \{-mIş\} is a perfect aspect and \{-DI\} is accepted as a past tense morpheme. Their co-occurrence in data (14 a & d) is an instance of redundancy in the presence of a conditional. These two morphemes do occur together when there is no other morpheme denoting possible worlds. The \{-DI\} in “Gel-miş-ti/ Come-perf-fact” marks the assertion of the indicative root clause. As such it is incompatible with the conditional. As has been argued in Aygen (1999 following Iatridou
2000), the so called “past” morpheme {-DI} varies over possible worlds when it follows a morpheme that introduces a possible world variable.

In brief, root clauses come in three moods in Turkish: Indicative, Conditional, and Optative.

4.1.2. ‘Finite’ Complement Clauses (FCC):

The inflectional morphology allowed in Finite Direct Complements is given below. The terminology used belongs to the conventional system. I will keep the conventional terms for the sake of simplicity for the time being:

Finite Direct Complements occur in the indicative or subjunctive mood.

(16)  a. Indicative FDC
Ben-∅ [Kürşat-∅ gel - iyor-du /ecék-ti /miṣ-ti- ∅]
I-Nom -Nom come- prog+perf/past/fut+perf/past /perf+past-3sg
san-dū-m.
think-perf/past-1sg
‘I thought that Kürşat was coming/was going to come/had come’

b. Optative
Ben-∅ [Kürşat-∅ gel - sin] iste-di-m.
I-Nom -Nom come- 3sg want-perf/past-1sg
‘I wanted Kürşat to come’

Crucially, Epistemic Modal as well as Deontic modal morpheme of ability are allowed in FCCs; Obligation is not:
(17) *Modal in FCCs*

I-Nom -Nom come-epistemic modality/ability think-perf/past-1sg  

I-Nom -Nom come-/deontic oblig think-perf/past 1sg  

4.1.3. *ECM in Turkish*

ECM constructions in Turkish do not allow Epistemic Modality; they allow only Aspect/Tense and Deontic Modality morphemes:

(18) Ben-∅ [Kürşat-ı gel-di/ecek/iyor/miş/ir/meli/ebilir (D)] san-dt-m.  
I-Nom -acc come-asp/deontic modality think-perf/past-1sg  
‘I considered Kürşat to have come, to be coming, to have to (to be required to) come, to be able to come’  

They do not allow complex inflectional forms, i.e. Aspect and Tense and Epistemic Modal morphemes.

(19) a.*Ben-∅ [Kürşat-ı gel- iyor-du /ecek-ti /miş-ti/∅]  
I-Nom -acc come-prog+past /fut+past /perf+past-3sg  
san-dt-m.  
think-perf/past-1sg  

I-Nom -Acc come-able-aor- think-perf/past-1sg
4.1.4. **Epistemic modality and Nominative Case**

The distribution of inflectional morphemes in Root Clauses, Finite Complement Clauses and ECMs illustrated above suggests that Nominative Case is licensed in structures that allow Epistemic Modality in Turkish. If this is correct, then ECMs, then ECMs consist of Aspect Phrases in both English and Turkish ECMs.

4.2. **Tense as Epistemic Modality, Mood and Epistemic Modality as Finiteness**

In this section, I will present the conceptual relation between Mood, Epistemic Modality and Tense. The goal is to capture the syntactic relevance of these concepts in terms of finiteness, i.e. Nominative Case licensing feature. I will try to show that such a feature has mood and modality at its core and functions as a finiteness feature similar to Pesetsky and Torrego (2001)’s $uT$ feature. As such, tense that has been accepted to be the finiteness/Nominative case licensing feature manifested in tense morphemes is in fact simply a manifestation of a feature connected to mood located at C in syntax. The internal structure of C will not be a subject matter in this research. Any theory of C or split C is compatible with the proposed approach here.

4.2.1. **Tense as Epistemic Modality, Mood as “tense’, i.e. finiteness**

Lyons (1977) defines Tense as a specific kind of Modality. In his approach, present, past and future are defined in terms of [+/factivity] and [+/remoteness]. Remoteness is relative to the moment of utterance:

$$T = \text{a kind of Modality}$$

(i) Present is a product of factivity and non-remoteness.
(ii) Past is a product of factivity and remoteness.

(iii) Future is a product of non-factivity and non-remoteness.

The major advantage of this approach is that it captures the difference in the epistemic status between past and future. Past can be True or False, whereas Future can be neither. Propositions with a factivity property can have a truth-conditional value; on the other hand, the so-called future statements, bearing no factivity do not have a truth-conditional value.

Considering that tense logic is developed out of modal logic, it is not surprising to find languages where this congruency relation between modality and tense is explicit. For instance, tense logic & modal logic are indistinguishable in most Native American Languages. Hockett (1958) and Lyons (1977) note that what is described as tense is in fact epistemic modality in Hopi.

Therefore, I will adopt Lyons (1977) and include counterfactual structures as the fourth kind of Epistemic Modality with the features [+ remote] and [-factive]. Counterfactuals are [-factive] by definition, and as has been observed in Bybee (1998) and analyzed in Iatridou (2000) always occur with “past” morphology that is [+remote] in Lyons’ (1977) classification. This approach finds a natural explanation under the widely accepted distinction between non-counterfactual (or non-factual) and counterfactual conditionals (Iatridou 2000, Aygen 1999/2000b)

(21) Kinds of Modality and the corresponding conventional terms of “tense’ and conditionals

(Rem=Remote)

Epistemic Modality
Kiss (1994) distinguishes two types of mood and two types of tense:

(22) Two types of mood (Kiss 1994)

Mood

ru

Pres Cond Past Cond
Real poss Irreal poss

Under this assumption, present conditional and past conditional are two different moods, or rather two different tenses: “one basically expresses real possibility, the other, irreal possibility.” Tense in Hungarian can be dependent or independent:
Two types of tense (Kiss 1994)

<table>
<thead>
<tr>
<th>Tense</th>
<th>Independent</th>
<th>Dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>ru</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ru</td>
<td></td>
<td>rgup</td>
</tr>
</tbody>
</table>

Pres Past real irreal Imper. Subjunctive

Dependent tenses include real conditional, irreal conditional, imperative, and subjunctive. Kiss also argues that infinitives may be analyzed as having dependent tense. Independent tenses can be realized as present or as past. The distribution of grammaticality in data (24) below, all of which include a long operator movement exhibits a regular pattern:

(24) a. ?? Kit₁ gondol-sz, hogy elnök lesz t₁?
    whom think-you that president become-pres.3sg
    ‘Who do you think becomes president?’

b. Kit₁ akar-sz, hogy elnök leg-yen t₁?
   whom want-you that president become-subjunc.3sg
   ‘Whom do you wish to become president?’

c. Kit₁ szeret- né- l, ha elnök len- ne t₁?
   whom like-cond-you if president become-cond.3sg
   ‘Whom would you like if president became?’

d. Kit₁ akar-nak megválaszta-ni elnök nek t₁?
   whom want-they elect -inf president-dat
‘Whom do they want to elect president?’

Extraction is marginal in only (24a), the sentence in which the embedded clause has independent tense. Kiss (1994) argues that what blocks extraction in (24a) is the intervening TP projection with the feature [+independent]. I agree with Kiss in that these facts can be accounted for in terms ‘dependency’ of T. I would analyze these data in terms of mood differences. The subordinate clause in data (24a) is [+Indicative], whereas those in data (24b-c) are [-Indicative]. If we base our analysis on these restricted data, we can simply argue that [+Indicative] subordinate clauses are islands for extraction, whereas [-Indicative] subordinate clauses are not. Despite the island effect, all subordinate clauses with any mood feature are finite in terms of licensing Nominative subject in their clauses except for the infinitival in (24b). If we assume that infinitive clauses are not CPs and therefore do not bear a mood feature, it follows that mood and tense morphology in Hungarian are the manifestations of a finiteness feature that licenses Nominative case. These observations on Hungarian supports the proposed theory that finiteness is a mood/Epistemic Modality feature that occurs on both C and the F(initeness) head.

I will depart form Kiss (1994)’s classification of types of mood and argue that there are two mood features relevant for our syntactic issues at hand: feature configurations on various types of clauses and how these configurations can account for certain syntactic problems such as finiteness in terms of Nominative Case, and the difference between root clauses and subordinate clauses in terms of syntactic and semantic (in)dependence.

In the previous chapter, I discussed Mood, Modality and Tense in English tense-less structures (Enç 1991 and Pesetsky 1995a) and argued that temporal interpretation is not necessarily tense-based. Epistemic modals that mark finiteness do not get involved in the
temporal interpretation mechanism as well. As such, the binder of a temporal variable and the feature that licenses Nominative (hence marks finiteness) need not be the same head.

In the following sub-section, I will adopt the analysis of Lyons (1977) and argue that Tense is a kind of Modality. I will then discuss the syntactic relevance of the relation of Mood and Modality, and discuss Nominative subject structures from various languages to show that finiteness, i.e. that which licenses Nominative Case, is in fact the combination of (a) a Mood feature on C and (b) a kind of Epistemic Modality feature on the Finiteness Phrase head.

4.3. The Syntactic and Semantic Relation of Mood and Modality

*Mood* and *Modality* have been a subject of semantic and somewhat syntactic inquiry for a very long time. Works on mood within generative linguistics have been developed in previous philosophical accounts. In this chapter, I will restrict my discussion to the definition of mood and classification of mood types in terms of a feature based theory in so far as it is relevant to the subject matter of this research. In this sense, I will not include very closely related topics such as clause types, illocutionary force, etc in my discussion. I will present a cross-linguistic theory where mood marks the head of a clause C as [+/- Indicative] and establish its relation to finiteness. I will try to show why such an approach accounts for Turkish, English and European Portuguese facts without making resort to *tense* or *agreement*. The facts of many Native American languages, i.e. Hopi (Hockett 1958 and Lyons 1977) where epistemic modality occurs in Nominative subject constructions, as well as Navajo and Arabic where subject case varies with Mood follow from the proposed analysis. Mood is defined in various ways: as a grammaticalization of Modality (Lyons 1977, 1995) or the verb (Bybee & Fleischman 1995). In terms of the framework set forth in Bybee and Dahl (1989), modality is a *semantic domain,*
while moods, as a formal category of grammar, can be either cross-language grammatical types (e.g. conditional or subjunctive) or language-specific categories (e.g. the Delayed Imperative in Buriat, an Altaic language).

Any definition of the concepts mood and modality is bound to bear a vagueness when one looks into the definition with the eyes of a syntactician. For instance, in Bybee and Fleischman (1995) “… mood refers to a formally grammaticalized category of the verb which has a modal function. Moods are expressed inflectionally, generally in distinct sets of verbal paradigms, e.g. indicative, subjunctive, optative, imperative, conditional, etc., which vary from one language to another in respect to number as well as to the semantic distinctions they mark. Modality, on the other hand, is the semantic domain pertaining to elements of meaning that languages express. It covers a broad range of semantic nuances –jussive, desiderative, intentive, hypothetical, potential, obligative, dubitative, hortatory, exclamative, etc. – whose common denominator is the addition of a supplement or overlay of meaning to the most neutral semantic value of the proposition of an utterance, namely factual and declarative.”

As may be observed in the quotation above, it is difficult to define these terms without making reference to other complex concepts and terminology. I will be concerned only with the morphological and syntactic expressions of modality and mood and their syntactic relevance to finiteness. I will adopt the distinction between grammatical mood and notional mood as stated in Portner (1999) and mean only grammatical mood when I refer to the term. I will adopt Lyons (1977, 1995) when I refer to the term epistemic modality.

4.3.1. Assumptions and Classifications of Mood and Modality

I will adopt the classification based on Lyons (1977, 1995) given in (25) in terms of Modality
(Rem=remote from the utterance time):

(25) Types of Modality

<table>
<thead>
<tr>
<th>Epistemic Deontic</th>
<th>Abilitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ru</td>
<td>Ru</td>
</tr>
<tr>
<td>Factivity</td>
<td>Non-Factivity</td>
</tr>
<tr>
<td>[+Rem]</td>
<td>[-Rem]</td>
</tr>
<tr>
<td>[-Rem]</td>
<td>[+Rem]</td>
</tr>
</tbody>
</table>

Past Present Cfs Fut

In this approach the two basic concepts underlying the modality types, i.e. *Necessity* and *Possibility* are inverse opposites. Abilitative refers to the type of modality that behaves differently from Epistemic and Deontic Modals.

In (26) and (27) below the dual nature of epistemic and deontic modals is illustrated:

(26) Necessarily, the sky is blue.
(27) It is not possible that the sky is not blue.

The only difference between (26) and (27) is attributed to the difference in their quantificational nature. *Necessity* is defined in terms of truth in all possible worlds (\(\forall x\)); *Possibility* is defined in terms of truth in some possible world (\(\exists x\)).

For *mood*, I will adopt a definition where it refers to a feature on the head of the clause distinguishing the clauses in terms of the *attitude* someone has toward what it expresses. The default mood /clause type is [+Indicative]. *Indicative mood* is used to add information to a
discourse in matrix clauses as in (28a). In subordinate clauses, indicative occurs with verbs of mental judgement (28b) and assertion (28c), some verbs of desiring (28d) (Portner 1999):

(28)  

a. The bird landed in the tree.  
b. Sarah believes that the bird landed in the tree.  
c. Sarah said that the bird landed in the tree.  
d. Sarah hoped/*wants that the bird landed in the tree.

I will assume the following types of mood represented in the syntax as [+/-] features on C:

(29) Types of Mood:  

\begin{align*}
\text{ei} & \\
\text{Indicative} & \quad \text{Non-Indicative} \\
\text{ei} & \\
\text{Imperative} & \quad \text{Subjunctive}
\end{align*}

The close connection between mood and modality is clearly explained in dynamic semantics (Kamp 1981, Heim 1982):

(30) The connection between mood and modality

(i) A clause has to be interpreted with respect to a parameter, a modal accessibility relation R, which encodes the force of the clause.
(ii) A mood establishes which types of relations are appropriate for a clause.
(iii) Because of the modal nature of the accessibility relation, there is a tight connection between modal and modality.
4.3.2. **Complementizer as a Modality Marker**

In the previous chapter, we have discussed the obligatory nature of the complementizer *that* in marking definiteness at a clausal level. It has also been claimed that Complementizers are also involved in marking modality. Frajzyngier (1995) argues that Complementizers constitute a part of the system of modality markers, more specifically, that they encode epistemic, deontic, and other types of modality. As such, they mark either the main or the embedded clause. If this is so, then there must be a complementary distribution of complementizers with other devices marking modality in the clause.

Frajzyngier (1995) argues that

(31) The main clause does not have a Comp if inherently marked

(i) the clause is indicative, hence for epistemic value and unmarked for deontic value;

(ii) there exist clause-internal, mainly inflectional devices to encode the modality of the clause

In Polish for instance, wish, a component of mood of obligation, for 1st and 3rd person is marked by a Comp:

(32) a-by tylko przyszła

C-C only come-3F-perf

‘I wish she would come’

In Polish, there is no clause-internal markers of epistemic/deontic modality for 1st and 3rd persons, hence uses Comp. In French, (Bourciez 1967:709, cit in Frajzyngier 1995), the complementizer *que* is obligatory before a subjunctive indicating a wish or an order:
Frajzyngier (1995:484) attests his hypothesis in Lele: Lele has no inflection form for hypothetical or irrealis mood and has a Comp for it; has an epistemic marker and no Complementizer for it. In brief, cross-linguistically, languages that mark mood/modality by inflection do not use a complementizer. I will adopt Frajzyngier (1995) to argue that the presence of a Comp licenses Nominative in English, and in Turkish adjunct clauses.

4.3.3. Mood and Modality as Nominative Case Licensers

The question here is whether the syntactic interdependency of mood and modality is parametric or universal. The conceptual answer to this question implies that this is a universal interdependency between these concepts. The empirical answer to this question is that the interdependence differs in terms of the (in)dependence of clauses, i.e. whether the clause is a root clause or a subordinate clause. The conceptual basis to the relation between mood and modality as well as Turkish facts leads us to propose the following finiteness feature to be a responsible for Nominative case-licensing (34), and its prediction stated as an ECM-hypothesis (35):

(34) Finiteness feature

Nominative case licensing feature, i.e., finiteness feature is a complex feature consisting of a mood feature on C and a modality feature on F.

(35) The ECM Hypothesis
Unless both the CP and the FP have active \([+]\) features, the clause is non-finite, i.e. cannot license nominative case on the subject and its subject is exceptionally case marked by an external functional head.

In the section below I will discuss the proposed analysis test the ECM hypothesis and the presence of both mood and modality features in Nominative subject constructions in various languages.

4.3.4. Proposed Analysis of Nominative Case Licensing and the ECM Hypothesis

Based on the morpho-syntactic distribution of inflectional morphemes allowed in finite complements and ECM constructions in Turkish, I have hypothesized that Nominative subject case is licensed in structures with Epistemic Modality and disallowed in ECMs that lack Epistemic Modality. In presence of the evidence in this research, I argue that C with a \(+N(\text{ominative})\) feature co-occurs with a functional head F with a \(+N\) feature as well:

\[
\text{(36) } \text{A simplified uniform clause structure for any given language: \([+\text{Finite}]\)}
\]

(left-branches are head positions; Specs are omitted for the sake of simplicity)
In a non-finite, i.e., non-Nominative case clause, either both C and F or either C or F bears \([-N]\) feature. The functional projections below F have + features for relevant categories other than finiteness:

(37) \textit{A simplified uniform clause structure for any given language: \([-\text{Finite}]\) (ECM)}

\[
\begin{align*}
\text{CP} &= \text{Mood} \\
\text{ru} &\quad [\alpha uN] \quad \text{OR} \quad [- uN] \quad \text{FinP} = (\text{TP/}\text{MOD}_{\text{EpistemicP}}) \\
\text{ru} &\quad [ -\alpha iN] \quad \text{OR} \quad [- iN] \quad \text{AspP} \\
\text{ru} &\quad [u\phi] \quad \nuP \\
\text{ru} &\quad \text{VP} \\
\text{ru} &\quad \nuP \\
\text{ru} &\quad \text{DP} \\
\text{ru} &\quad [i\phi]
\end{align*}
\]

This approach will also provide a uniform account in terms of Accusative subject ECMs and Genitive subject noun complements in Turkish. The nature of the head in the higher clause, that is responsible for ECM in the lower clause determines the case: verbal head licenses accusative (ECM), nominal head licenses Genitive (factive noun complements, relative clauses). Genitive-subject noun complements are internally ECMs: they are AspPs with an external nominal layer that licenses Genitive case. ECMs lack that nominal layer and their subject is licensed by an external \(\nu\) of the higher clause. Remember the core data (12 in Chapter 1) that has been discussed as part of the GA/NO phenomenon in Chapter 2 and analyzed in Chapter 3:

(12) \text{Ben-Ø [Ali-nin cam-l ktr-\textit{diğ}l zaman]}l bil-iyor-du-m
I have argued in line with Miyagawa (1993) and Ochi (2001) that an external nominal head licenses Genitive case on the subject. This is an instance of ECM where the external head that case marks the subject in the lower clause is nominal rather than verbal, as is the case in typical ECM constructions. (39) is attested in Turkish data in (12) and ECM complements. They both consist of AspP and if they do have any higher functional heads at all, i.e. a Finiteness Phrase (=TP) or CP, those heads do not have [+ ] features for mood and modality.

In English, there is a dependency between the presence of indicative mood and epistemic modality in root clauses and a dependency between non-indicative mood and modality in terms of an obligatory complementizer in subjunctives. English facts are given below:

(38)  a. Root clauses are finite, hence have a nominative subject when
   (i)  [+ indicative] and [+ modal_e=tense]
       ‘He came home.’
   (ii) [-indicative] and [+/- modal_e=tense]
       ‘If only he came!’

b. Subordinate clauses are finite when
   (i)  [+indicative] and [+ modal_e=tense]
       ‘… that he came home.’
   (ii) [-indicative] and [+ modal_e=comp/modal]
       ‘… that he come home.’

c. Subordinate clauses are non-finite when
   (iii) [-indicative/-nonindicative] and [-modal]
       ‘… him to come home.’
d. Subordinate clauses are ungrammatical when

(iv)  [-indicative] and [-modal= comp]

‘*I insist he come home’

(38) above illustrates English structures where Nominative subject constructions are both [+mood] and [E-mood, either as tense, or by virtue of the presence of a Comp, or still by virtue of the structure being [-Indicative]. Note that Nominative is licensed in English subjunctives despite its [-T/-Agr] nature, therefore we do not need to make resort to Tense (or Agreement) for Nominative Case licensing: we have a mood feature [-Indicative] on C which would require a Finiteness Phrase (TP) to bear a finiteness feature (uN):

(39)  I insist that she be on time.

Therefore, I take it that Non-Indicative Mood can be involved in Nominative case licensing, as a feature on C both in English. Hwang (1997) proposes a null modal in English subjunctives to account for Nominative case-licensing

Another piece of evidence for the ‘finite’ nature of English subjunctives comes from the distribution of complementizers that and for. That introduces finite clauses, whereas for introduces non-finite ones (Chomsky and Lasnik 1977). Subjunctives in English always take that never for. Compare (39) and (40):

(40)  *I insist for she be on time.

As Hwang (1997) points out, English subjunctives behave like any other ‘finite’ clause in terms of anaphor binding. As is well known, anaphors are not allowed in the subjects of finite
clauses (Tensed S Condition in Chomsky 1973, and NIC in Chomsky 1980). Compare (41a), a
typical finite clause and (41b), a subjunctive. Note that the grammaticality judgments are
identical:

(41)  a. *The guys, told that each other, went to the party.
     b. *The guys, insisted that each other, go to the party.

Island effects in tensed ‘finite clauses and present subjunctives are identical as well.
Compare (42) and (43):

(42)  The effects of extraction out of a tensed clause
     a. What, did you insist that she bake t_i ?
     b. *Who did you insist that bake the cake?
     c. *How did you insist that she bake the cake?

(43)  The effects of extraction out of a subjunctive clause
     a. What did you think (that) Sue baked t_i ?
     b. *Who did you think that cut the cake?
     c. *How did you think Sue cut the cake?

The syntactic similarities between tensed clauses and subjunctives in English suggests
that the same feature, plausibly mood and Epistemic modality might be responsible for
Nominative Case as well as other syntactic behavior patterns that have been attributed to tensed
finite clauses

In brief, Turkish Nominative requires the presence of an Epistemic Modal feature on a
functional head, and a mood feature on C. Therefore, the functional head with active features in Turkish ECMs are AspPs. This analysis may be extended to English: English Nominative is a $uT$, which I have argued is in fact a kind of Epistemic Modality on a Finitenesss Head (=TP), therefore English ECMs are either smaller than the head that bears $uT$, i.e. TP and they are AspPs as well. Another way to look at it would be that the highest functional head with $+$ features is AspP.

4.3.5. Can this analysis be extended to languages other than Turkish and English?

The interdependence of mood and modality is observed in the behavior of relevant syntactic features in Turkish and English. In Inflected Infinitives on some Indo-European languages, such as Italian. There is a modal in the Italian data where nominative case is attributed to the presence of an invisible Agr by Raposo (1987):

(44) **Italian**

<table>
<thead>
<tr>
<th>Ritengo</th>
<th>[esser [loro in grado di pagare il riscatto]</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe</td>
<td>to be the able to pay the ransom</td>
</tr>
</tbody>
</table>

Iatridou (1993) discusses Agr as a possible case licenser in Greek and shows that it is not possible. Consider (45) and (46) below:

(45) **Greek-ACC subject** (Iatridou 1993)

| vlepo to Kosta na tiganizi psaria |
| see DET Kosta/ACC fries fish      |
| 'I see Kostas fry fish            |

(46) **Greek-NOM subject** (Iatridou 1993)
elpizo o Kostas na tiganizi psaria
hope DET Kostas/NOM fries fish
‘I hope Kostas fries fish’

If Kostas were replaced by ta pedhia/ the children, the embedded verb would bear 3rd person plural form tiganizun, and this holds for both (45) and (46). This casts doubt on the possibility that [+Agr] is a case licenser. Based on the insertion of a past tense morpheme to (45&46) Iatridou (1993) argues that [+T] is a case licenser (45’ & 46’):

(45’) *idha/vlepo ton Kosta na tighanize psaria
(I) saw/see Kosta/ACC fried fish
(46’) elpizo o Kostas na tiganise psaria
hope Kostas/NOM fried/3sg/past fish
‘I hope Kostas fried fish’

Note that the presence of past tense is not the only parameter that is different in (46): One could argue that the matrix verb ‘hope’ is one that introduces possible worlds, that is, one that creates a modal context for the Nominative to be licensed. The ungrammaticality of (45’) with past tense could be accounted for the unavailability of tense, i.e. epistemic modality in Greek ECM complements. I consider [+T] of Iatridou (1993) to be an epistemic modality feature in Greek, based on this argument on restricted data.

In Catalan (Picallo 1984, cited by Iatridou 1993) there is a [-T/+Agr] combination in the subjunctive, where +Agr is argued to be the Nominative licenser:

(47)  Catalan   (Picallo 1984, cited by Iatridou 1993)
vols que els nens/ec mengin patates
want/2sg that the children/NOM eat potatoes

‘You want that the children eat potatoes’

The embedded clause with the nominative subject is not only [+mood], therefore [+N] in the C domain, but also [+modal] by virtue of occurring within the modal domain of the higher verb ‘want’, therefore [+E-Modal] in the F domain. There is no need to resort to the presence of Agr to account for Nominative licensing.

Classical Greek has inflected infinitives like EP but they are inflected for tense with an aspect reading (Smythe 1920, cit. Iatridou 1993) not for Agr. Iatridou (1993) also notes that tense morphemes are interpreted as Aspect in Subjunctive and Optative Mood constructions that also happen to be [+Agr]. Although she concludes that the relevant feature there must be Agr in these constructions since [-T], it is possible that the non-Indicative mood has a Nominative licensing feature of its own in CG just like English and Catala examples above.

In Classical Arabic, the morphology of the nominative subject does not co-vary with the tense of the sentence. The suffixes that mark nominative case are identical to the “mood” morphology of the imperfective indicative verb (Benmamoun 1992, 2000, cited in P&T 2001).

(48) Classical Arabic

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>ū-taaliceu</td>
<td>ū-taaliceu-ān</td>
<td>1-muʔal-muʔ-ūnu</td>
<td></td>
</tr>
<tr>
<td>the student-NOM</td>
<td>the-student-DUAL.Nom</td>
<td>the-teacher-PL.NOM</td>
<td></td>
</tr>
<tr>
<td>y-ktib-ū</td>
<td>y-ktib-ān</td>
<td>yuʔall-ūnu</td>
<td></td>
</tr>
<tr>
<td>3M-write-IND</td>
<td>3M-write-DUAL.IND</td>
<td>3M-teach-PL.IND</td>
<td></td>
</tr>
</tbody>
</table>
the interdependence of mood and epistemic modality feature in terms of licensing nominative case in Turkish, and have argued that this analysis captures certain facts in English as well. I have also provided empirical facts from Italian, Catalan, Modern Greek and Classical Arabic to support the proposed analysis based on interdependence of mood and modality in nominative case licensing.

In the next section, I will discuss empirical facts from European Portuguese, English, and Japanese ECM constructions and argue that the ECM Hypothesis is predicted by the proposed analysis.

4.3.6. ECM Hypothesis in European Portuguese, English and Japanese ECM

European Portuguese is one of the languages that have been argued to have Agreement licensing Nominative case (Rouveret 1980, Chomsky 1981). Raposo (1987, 1989) and Raposo and Uriageraka (1990) discuss the differences between prepositional infinitival constructions (PIC)s, where Nominative subject is observed and those where it is not observed: nominative subject PICs occur as root clauses and complements of volitional predicates, two environments where the presence of mood is required: [+/-indicative] in root clauses and [+indicative] in subordinate ones. In [-Indicative] clauses, the structure is non-finite and becomes an ECM complement, as will be discussed shortly.

I will argue that these facts suggest an inter-dependence between mood and modality in terms of licensing Nominative case. In the absence of a modal, European Portuguese [-indicative] clauses cannot license Nominative case either.

4.3.6.1. European Portuguese Inflected Infinitives (Raposo 1987, 1989, Raposo &
One of the most commonly discussed languages where agreement is argued to be a nominative case-licenser is European Portuguese (henceforth EP) because EP has Inflected Infinitives (IIIs) where the subject is in the Nominative and the only overt inflectional morphology in these structures is Agreement.

The properties and distribution of PIC – Prepositional Infinitival Constructions in EU (Raposo 1989) are the following:

(49) *Prepositional Infinitival Constructions in EU (Raposo 1989)*

a. PICs do not occur as
   (i) a clausal subject in expletives
   (ii) a complement to factive and epistemic/declarative verbs

b. PICs occur
   (i) in isolation (data 50)
   (ii) in subject position (data 51)
   (iii) as a complement of volitional predicates (data 52)

(50) Os meninos a fumaremb! Isso e um horror.
    The children Prep smoking! That’s awful.

(51) Os meninos a fumaremb e um espectaculo horrivel.
    The children Prep smoking is an awful sight.

(52) Eu quero [os meninos a trabalharem ja]
    I want the children Prep working now.

PIC in the local context of a matrix transitive verb is an ECM:

(53) Eu vi-os, [ec_i a trabalhar(em)]
I saw them working

(54) Eu quero [os meninos a trabalharem ja]
I want the children working now.

Raposo (1989) argues that it cannot be Agr licensing case to the subject in (50), and that there is an empty category controlled by the lexical subject as the subject of the clause. One could argue that the only empty category to be controlled from a higher clause is a PRO. Considering the availability of agreement within the structure, the empty category is more likely to be a pro rather PRO.

I would like to present two observations on the contrastive data in (53) and (54): the accusative subject, i.e. ECM complement clause occurs within the domain of a non-modal matrix verb, ‘see’, whereas, the nominative subject complement clause in (54) is within the domain of a modal verb, ‘want’. The contrast in (53) and (54) is similar to the Modern Greek data in (45) (46) above because the same contrast is discussed with the same ECM predicates, ‘see’.

The contrast between (53) and (54) is predicted by the ECM Hypothesis: The difference between (53) and (54) similar to the difference between (1&2) in Turkish. (54) lacks the modal contexts provided by the verb ‘want’ in (53), hence the ECM in (54). The optionality of Agr in (54) is similar to Turkish ECMs, and will be discussed in the next section as an optionality of mood. The syntactic distribution of PICs in European Portuguese indicate that they are possible within a [–Indicative/+ Conditional/Subjunctive] Mood, that is, in structures where C is –N and cannot license Nominative subject; hence, they become ECM constructions. I-to-C is not triggered because C does not have a +N feature. It is also possible, as has been proposed before, that ECMs do not have a CP layer at all. Therefore, Agr need not be directly related to subject
case licensing in either *Is or PICs.

4.3.6.2. English ECM and the ECM hypothesis

English ECMs also suggest that the ECM hypothesis may be correct. If Pesetsky and Torrego (2001) is correct in that English Nominative is a $uT$: it would follow that English ECMs are smaller than TP; they allow Aspect, but not Tense or Modality. These facts are illustrated in (55) below:

(55)  a. I consider/assume him to be/ to have been absent
      b. I consider/assume him to be/ to have been going to the party.
      c. * I consider/assume him to have to be absent/to be able to go to the party, etc.

English has, at least, two classes of ECM predicates

(56)  a. believe-class (consider, assume)
      I believe this hypothesis to be true.

      b. want- class (wish, desire, hate)
      I hope for Robin to come early.

The syntactic distribution and semantic properties of the believe-class are almost in complementary distribution with those of the want- class:

(57)  Believe-class ECM predicates:

      a. Attribute epistemic statements as prepositional attitudes [+epistemic]

      b. Are incompatible with for.
The epistemic nature of the *believe*-class is clearly observed in the availability of epistemic modal adverbs within the ECM complement in (58) below:

(58)  
I believe this axiom to be necessarily true.
I consider him to possibly be dangerous.

The fact that the *believe*-class does not subcategorize for *for* infinitivals is illustrated below:

(59)  
a. I believe/assume/consider (*for) John to be dangerous.
b. the belief/assumption [*for John to be dangerous] [that John is dangerous]

The major property of the *Want*-class ECM predicates is that they allow *for*:

(60)  
I wish for John to be happy.

Crucially, they allow *for* only in the absence of a punctual reading aspect Pesetsky (1995a):

(61)  
[Pesetsky’s (191-3)]

f. John would hate/must hate for his students to smoke in class.
g. John always hates for his students to smoke in class.
h. *John hated for his students to smoke in class.

(62)  
a. John always hated for his students to smoke in class. (Jon Nissenbaum, p.c.)
b. *John hated for his students to smoke in class yesterday.

(62a) is grammatical as a *generic* past, e.g. in a eulogy, yet ungrammatical if it is a
proposition about John’s attitude towards an actual event.

Pesetsky (1995a) argues that want-class verbs and for co-occur with modals or generic operators, and that this condition is irrealis mood, which is a lexical property of want-class verbs. These facts allows us to argue that we have two classes of ECM predicates that are not specified either for mood or for epistemic modality, as predicted by the ECM hypothesis:

(63) English ECMs
i. believe-class [+epistemic] ; not specified for mood.
ii. want-class [+mood]=irrealis ; not specified for [epistemic]

4.3.6.3. Japanese ECMs

In Japanese, ECM constructions are those that can bear epistemic modality. The prediction of the ECM hypothesis is that they lack mood. As has been noted (Shigeru Miyagawa, Susumu Kuno, Ken Hiraiwa, p.c.), the presence or absence of mood in these structures is not straightforward.

Facts of Japanese imperatives in root and subordinate contexts (Susumu Kuno, p.c.) given below:

The subject of the embedded clause in (64) below, kanozyo-ga ‘she-nom’ is Nominative in the presence of epistemic modal ‘must’:

(64) Taroo wa Hanako no koto o kanozyo ga tensai ni tigainai to omot-te i-ru.
Top ‘s matter Acc she nom genius must be that think-ing is
'(Lit.) Taroo thinks (of) Hanako that she must be a genius.’

(65) Taroo wa Ken no koto o aitu wa hido-i otoko da to iihurasi-te i-ru.
Top ‘s matter Acc that-guy Top terrible-gen man is that gossip-ing is
'(Lit) Taro is gossiping (of) Ken that that guy is a terrible person.'

Kuno (p.c.) notes that the topic marker wa, which doesn't show up in embedded clauses, shows up in (65). The subject of the subordinate clause in (65), bearing a Topic marker suggest that it is an independent clause, or a direct quote. One could take the presence of the Topic of the marker as an indication of the independence of complement clause from the higher clause in terms of mood and epistemic modality, though a convincing argument would require further empirical facts.

(66) illustrates the imperative root clause (66a), Direct imperative (66b), and indirect imperative (66c). The ‘–i’ morpheme is an imperative marker:

(66) a. Boku no uti ni sugu ko-i.
    I Gen house to immediately come-imp (Imperative)
    'Come to my house immediately.'

b. Yamada wa Ken ni boku no uti ni sugu koi to it-ta. (a direct discourse quotation)
    to I gen house to immediate come(Imp) that said
    'Yamada said to Ken, "Come to my house immediately."

c. Yamada wa Ken ni yatu no uti ni sugu koi to it-ta.
    that-guy Gen house to immediate come
    '(Lit.) Yamada said to Ken "Come immediately" to his house.

N.B. "Koi", which is imperative, must be a direct quote.
    "yatu no uti ni 'to his house'" must be an indirect quote.

In the imperatives above, there is no Nominative subject due to the nature of the mood, i.e. [Imperative]. Based on Kuno’s argument presented above, I will conclude the discussion on Japanese by proposing that Japanese might support the ECM hypothesis once we can detect the presence and absence of mood in ECM contexts.
To conclude, in English, the properties of two classes of ECM predicates are suggestive of the ECM hypothesis being correct. In European Portuguese, we have observed that [-indicative] subordinate contexts are non-finite unless there is a modal. Similarly in Italian, the presence of a modal in [-indicative] subordinate context licenses nominative case. In Turkish, the presence of Epistemic modality along with [+indicative] accounts for the nominative case in subordinate clauses. In [-indicative] subordinate contexts we can assume a null modal since only volitional verbs select them, as is the case with nominative subject PICs in EP.

Based on the empirical arguments on English, Italian, Catalan, Modern Greek, European Portuguese and possibly Japanese, I propose that the presence of both a mood feature $uF$ on C and a modal feature on F is required to license Nominative case (or the finite subject case) cross-linguistically. Incorporating a universal interpretation of the ECM hypothesis [in (49)] in this idea, I propose the following:

(67)  
A hypothesis on ECMs and finiteness feature

Languages allow [+ ] feature only in the functional categories lower than the functional head that bear the finiteness feature, i.e. a Nominative case feature in their ECM constructions.

(68) below gives a chart of the mood/modality features in ECMs cross-linguistically:

(68) Mood and modality in ECMs

<table>
<thead>
<tr>
<th>Language</th>
<th>Mood</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkish</td>
<td>+/-</td>
<td>-</td>
</tr>
<tr>
<td>Japanese</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>European Portuguese</td>
<td>+/-</td>
<td>-</td>
</tr>
<tr>
<td>English</td>
<td>+ in for ECMs/ - elsewhere</td>
<td>- in for ECMs/ + ‘believe’</td>
</tr>
</tbody>
</table>
The lack of either or both Mood and modal features in ECM constructions follows from the idea that Nominative Case is licensed by a complex feature composed of both mood and modality.

In structures where there is no morphology of tensed clauses although we observe Nominative case, we observe mood overtly. For instance, in English present subjunctives, a [-indicative] mood is present though not necessarily an overt modal. Following Roberts (1985, 1993), Hwang (1997) proposes a phonetically null modal in the subjunctive.

In the following section, I will try to show that the category that distinguishes ECMs from finite DCs in Turkish is not the optional nature of Agreement as has been argued before (George & Kornfilt 1981, and subsequent work). I will argue that the optional nature of Agreement in Turkish and EP ECMs is a reflex of the requirement that both [+Mood] and [+Epistemic Modality] are required to license Nominative Case. Even when there is [+mood], lack of Epistemic Modality makes the structure an ECM.

4.4. The Optional Nature of Agr in ECMs: Agreement as a Mood Marker

I will give an account of the optional nature of Agreement in ECM constructions. If mood is a component of the complex feature that licenses Nominative case, the optionality of Agr may be a reflex of the incapability of mood on its own to license Nominative Case since ECMs already lack the other component, i.e. Epistemic Modality. Agr can be omitted without making a change in the non-finite, i.e. non-Nominative case nature of the clause because Agr marks the presence of Mood in Turkish and European Portuguese.

Re-classification of agreement paradigms according to mood features of a clause along with the proposal that nominative case is licensed by a complex mood+modality feature also
gives us a classification of clauses in terms of syntactic and semantic dependency.

4.4.1. Optional Agreement, Compulsory Agreement, Compulsory non-agreement

Turkish ECMs have been reported to exhibit a three way distinction in various dialects, as has been discussed earlier: Compulsory agreement (Pullum 1975), Optional agreement (Kural 1993, Zidani-Eroglu 1997, Moore 1998, Aygen 2000a,b), compulsory non-agreement (Knecht 1974 a, b, Kornfilt 1976, George & Kornfilt 1981). I will argue that these dialectal distinctions do not play a major role in terms of rendering the structure an ECM complement. The “optional” Agr just like European Portuguese PICs do not allow Modal morphemes (Epistemic or Deontic) The only functional category allowed in Turkish ECMs is Aspect. The prediction of the hypothesis in (67) is that the feature that marks finiteness, that I take to be a Nominative case feature, must be on a higher functional category that is not allowed in ECMs but allowed in finite clauses in Turkish.

The structures below illustrate a finite complement with Nominative case on its subject (69) and an obligatory Agreement on its predicate as well as an ECM with Accusative case on its subject (70) and an optional Agr on its predicate:

(69) *Turkish Finite Complement (FC)*

Kürşat-Ø [ biz- Ø kek-i ye-di-k] san-tyor.

Kürşat-Nom we-nom cake-acc eat-past-1pl think-prog

‘Kürşat thinks us to have eaten the cake’

(70) *Turkish ECM*
Kürşat- Ø [biz-i kek-i ye-di-(k)] san-tyor.

Kürşat-Nom we-acc cake-acc eat-past-(agr) think-prog

‘Kürşat thinks that we have eaten the cake’

Note the identical surface form in (69&70) except for the optionality of Agreement in (70), which has been a misleading factor in previous analyses: ECM and FCs seem to have same inflectional morphemes: the so-called and T/A/M and verbal Agreement. In a tense-based language the occurrence of tense would predict Nominative case on the subjects of both constructions. In an agreement-based analysis, the occurrence of ‘verbal’ agreement, either optionally or obligatorily, would predict Nominative case on the subjects of both constructions as well. I have shown in section (4.1.) that it is the presence of Epistemic Modality in that distinguishes FCCs from ECMs.

Any reported dialect of Turkish is accounted for by the proposed analysis:

(71) Dialectal differences in Modern Turkish and the ECM hypothesis


[-Epistemic Modal], [-Mood]

b. Compulsory agreement (Pullum 1975),

[-Epistemic Modal], [-Mood]


[-Epistemic Modal], [-/+Mood]
Any dialect in (71) attests the prediction of the ECM hypothesis in (71).

In Chapter 2, I have argued that the optionality of Agreement in ECM cannot be taken as evidence that Agreement is a marker of finiteness and a subject case licensor in neither Turkish nor European Portuguese. The optionality of Agr in ECMs is apparently an indication of some deficiency in terms of a Nom feature in the clause, though it is not the feature responsible for subject case licensing per se. Based on the distribution of agreement morphology on various types of clauses in Turkic languages, I will argue that agreement morphology in clausal predicates is a mood marker. Its optionality or compulsory/non-compulsory nature in ECM is does not affect the (un)availability of Nominative case because of the interdependency of mood and modality features to license Nominative case. In the absence of a modal feature, it is irrelevant whether the presence of mood is taken to be optional, grammatical or not in that its presence does not suffice for nominative case licensing, given that epistemic modality component is absent.

I suggest that when it is optional, in Turkish and EP, it is the mood that is optional. When required, it is required independently of subject case licensing requirement. When it is not allowed, it is the mood that is not allowed for independent reasons. The proposed analysis of Nominative case licensing is relevant in any reported dialect of Turkish in terms of the availability of agreement in ECMs.

4.4.2. Agreement Paradigms in Turkic Languages

In this section, I will present Agreement paradigms in Turkic languages, which seem radically different from the previous ones in Turkish linguistics. The contribution of the proposed
classification lies in the fact that it is not based on similarities in surface form, and that it helps account for different clause types in Turkish and other Turkic languages. Previous syntactic accounts (Lees op cit, Kornfilt 1984, and relevant subsequent work on Turkish linguistics cited elsewhere in this research) have either posited auxiliary and copular verbs to account for the distinctions, or have restricted their analysis to indicative clauses only.

A very recent comprehensive work on finite inflection in Turkish (Sezer 2002, in Erguvanlı-Taylan (ed) 2002) suggests a simpler account of all agreement paradigms available in Turkish. Sezer distinguishes three paradigms based on both morpho-syntactic and phonological properties of the inflectional forms: the mixed paradigm, stressed paradigm and the clitic paradigm.

My classification is based only syntactic functions and overlaps with those of Sezer (2002), but with further theoretical implications. I will distinguish Agreement that appears on clausal predicates from the one that appears on phrasal (possessive constructions). I will present three paradigms at a clausal level and argue that the first two are mood markers indicating that the clause is independent from others in terms of mood. The third one, that is synonymous with what has been called the ‘nominal paradigm’ marks a dependency of the clause in terms of a mood feature to a higher clause or lack of a mood feature and as such appears only in subordinate clauses.

Table in (72) below gives the Agreement Paradigms in Turkish language.

(72) Agreement Paradigm in Turkish:

| Agreement | Person | I. Verbal_{Past/Cond} | II. Verbal_{2} | III. Nominal_{Nom/Adj} | IV Poss_s |
In (72), the so-called Nominal Agreement is taken to be identical to possessive agreement when it appears in subordinate predicates. Nominal Agreement in fact occurs attached to the substantive, i.e. non-verbal predicates in root clauses. The similarity of the agreement morphology observed in subordinate clauses to the agreement observed in possessive constructions is simply a similarity in surface form, not in syntactic function.

<table>
<thead>
<tr>
<th>1st</th>
<th>-(I)m</th>
<th>-(E)yIm</th>
<th>-(y)Im</th>
<th>-(I)m</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>n</td>
<td>-(Es)n</td>
<td>-(s)n</td>
<td>-(s)n</td>
</tr>
<tr>
<td>3rd</td>
<td>Ø</td>
<td>-(E)</td>
<td>Ø</td>
<td>-(s)l</td>
</tr>
<tr>
<td>1st</td>
<td>k</td>
<td>-Ellm</td>
<td>-(y)lz</td>
<td>-mlz</td>
</tr>
<tr>
<td>2nd</td>
<td>nlz</td>
<td>-(Es)ln</td>
<td>-slnlz</td>
<td>-nlz</td>
</tr>
<tr>
<td>3rd</td>
<td>lEr</td>
<td>-(E)lEr</td>
<td>-lEr</td>
<td>-lErI</td>
</tr>
</tbody>
</table>

As for the two verbal agreement forms (I and II), the previous appears on predicates of

(74) a. [+Indicative] Clauses

   (i) [+indicative] root clauses

   (i) [+indicative] finite complement clauses

   (ii) [+indicative] ECMs optionally

b. [-Indicative, +Conditional]
The second verbal agreement appears only on

(75)  [-Indicative, -Conditional], i.e. Optative

(i)  verbal predicates

(ii) substantive predicates

In brief, the first Verbal paradigm does not necessarily appear on verbal predicates; it necessarily appears on [+Indicative] and [-Indicative, +Conditional] clauses. The distribution of the agreement paradigms in terms of the type of clauses they appear in justifies the claim that agreement at a clausal level marks mood. Based on this distributional argument I propose (76):

(76)  There are two types of Agreement Paradigms in Turkish: Clausal and Phrasal (Possessive):

a. Clausal Agreement marks mood in Turkish and has three paradigms:

<table>
<thead>
<tr>
<th>Agreement</th>
<th>ru</th>
<th>Clausal</th>
<th>Phrasal</th>
</tr>
</thead>
<tbody>
<tr>
<td>rgu z——m</td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
</tbody>
</table>

(i)  I = [+Indicative] verbal, [-Indicative, +Conditional] verbal+substantive

(ii) II = [-Indicative, -Conditional] verbal+substantive

(iii) III = [+Indicative] substantive

(iv) IV = Null Mood similar to Phrasal Agr in form and appears on subordinate clauses

b. Phrasal Agreement, i.e. Possessive marks possessive in phrases, [-mood] by definition.

Only [-Indicative] in root clauses have a distinction between [+/- verbal] predicates. [-
Indicative clauses, that can be either root clauses or subordinate clauses, do not distinguish between the verbal/non-verbal nature of the predicate. Previous classification of agreement in Turkish syntactic literature is based only on indicative clauses and has been misleading in terms of the distinctions as well as the syntactic function of agreement at a clausal level.

(77) Sezer’s (2002:22)) classification of these paradigms is as the following:

a. The mixed paradigm heads only the optative subjunctive Tense -yE (Verbal 2 in (72) above);

b. The stressed paradigm heads only the Tense 1 and tense 2 forms -DI and –sE (Verbal 1 in (72) above);

c. The clitic paradigm heads the rest of the tense affixes; namely the future -yEçE, inferential past -mIş, inferential Tense2 –mIş, the aorist –Er/-Ir, continuous –Iyor, continuous –mEktE, and the necessitative –mEll. It also heads the predicate nouns, adjectives and postpositions in the present tense (Nominal paradigm in (72).


What Sezer (2002) calls Tense is clearly Mood due to his analysis based on Lees’ (1962), as well as his own phonological arguments. Firstly, Lees (1962) proposes a null Tense (for the first time in Turkish Linguistics, as far I know) in predicates that appears in the “Participle plus Copula forms”. Lees (1962) and Sezer (2002, and p.c.) argue that the ‘past’ –DI and the
‘conditional’ –sE are the ‘true’ tense suffixes. Note that the former occurs in [+Indicative] and the latter in [-Indicative, +Conditional] structures and mark them with mood. Secondly, Sezer’s (2002) formulation that ‘the last (i.e. the highest) Tense determines the agreement paradigm’ refers to the highest inflectional feature in a clause structure, i.e. mood in C.

To be able to refer to the syntactic distribution of agreement paradigms given in (76), I will use a new terminology. The first column in (72), i.e. Verbal_1 refers to the Agreement that appears after mood morphemes (Indicative {-DI} and [-Indicative] conditional{-sA}). The latter also occurs with substantive Conditionals. Henceforth, I will call this agreement [+/-Indicative] Mood Agreement or Mood_1.

The second column in (72), i.e. Verbal_2, refers to [-Indicative] [-Conditional], i.e. optative & imperative mood. It can appear on both root and subordinate clauses; either way, they are independent from the mood of the higher clause. I will call this agreement [-Indicative, -Conditional] Mood Agreement or Mood_2.

The third column in (72), i.e. Nominal, refers to [+Indicative] with Substantive predicates in root clauses. I will call this paradigm Substantive Mood Agreement or Mood_3.

The fourth column in (72), i.e. the possessive, is a phrasal morphology that marks the possessee and appears with the genitive on the possessor. This is the nominal, i.e. Genitive Agreement. When it appears on subordinate clauses, it marks dependency of the subordinate clause to the higher one in terms of mood. Considering that it marks lack of independent mood, I will call this agreement [null Mood] Agreement when it appears on clausal predicates, [-Mood] when it occurs in phrasal constructions. Recall that Sezer’s (2002) classification also captures the occurrence of this paradigm on the so-called ‘participle’ forms of the verb in root clauses based
on his analysis of their clitic nature.

The classification of the phrasal agreement in the fourth column as not only a possessive construction but also a non-mood in phrasal or null mood in clausal constructions accounts for the occurrence of this paradigm in subordinate predicates.

This classification of Agreement paradigms extend to other Turkic languages. I will give Kazakh as an illustrative example:

(78) Agreement Paradigm in Kazakh:

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Person</th>
<th>Mood₁</th>
<th>Mood₂</th>
<th>Mood₃-Substantive</th>
<th>-/øMood/Poss,</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>-(i/ɪ)m</td>
<td>Mi/ɪn;bi/ɪn;pi/ɪn</td>
<td>-mi/ɪn;bi/ɪn;pi/ɪn</td>
<td>-(i/ɪ)m</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>- ŋ</td>
<td>-si/1ŋ</td>
<td>-si/1ŋ</td>
<td>-(i/ɪ)ŋ</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>- Ø</td>
<td>- Ø</td>
<td>- Ø</td>
<td>-(s) ɪ/ɪ</td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>- k/q</td>
<td>--yiq/-yik mi/ɪz;bi/ɪz;pi/ɪz</td>
<td>-mi/ɪz;bi/ɪz;pi/ɪz</td>
<td>-(i/ɪ)m iz/m ɪz</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>-ηiz/ηiz</td>
<td>-si/iz</td>
<td>-si/iz</td>
<td>ηiz/-ηiz</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>- 1Ar</td>
<td>- Ø</td>
<td>- Ø</td>
<td>-si/1ŋ</td>
<td></td>
</tr>
</tbody>
</table>

As may be observed in the table above, the agreement classifications in Kazakh are identical to those of Turkish. I have kept the previous terminology in the table but suffice it to say that the same arguments are valid for Kazakh.
Difference in the agreement paradigm based on mood rather than tense is not restricted to Turkic languages, and is observed in other languages: in Svan, a Kartvelian language, evidential consists of 6 “tenses”, only two of which share the verbal agreement paradigm similar to the +/- Indicative Mood agreement in Turkish. (Sumbatova 1999).

The classification of agreement paradigms based on mood also helps us establish syntactic and semantic (in terms of mood) (in)dependence criteria in Turkic languages. The criteria are based on the nature of subject case (Nominative vs. non-nominative) to distinguish clause types and to capture the difference between root and subordinate clauses. I believe this classification of Agreement paradigms will bring a new insight into the Turkish linguistics that has been restricted to [+indicative] clauses and has been misled by similarities in surface forms. This classification shows that agreement morphology is in fact a manifestation of mood, and as such does not necessarily have any connection with finiteness per se because it simply marks the presence or absence of mood. Its optional/obligatory/non-obligatory nature in ECMs finds a natural account as well.

4.4.3. Dependency & Independency of Clauses: the differences between root clauses and subordinate clauses in Turkic languages

So far I have argued that neither Tense nor Agreement are responsible for subject case licensing. I have argued that Genitive is licensed by an external nominal head and Nominative by a finiteness feature on FP and C that is manifested by a kind of epistemic modality morpheme and mood. I have also argued that Agreement is not involved in genitive or Nominative licensing at a clausal level. In this section, I will argue that agreement morphology on the predicates at the sentence final position has a different function, that of marking the absence or presence of mood
and contributing to marking the (in)dependence of a clause.

Consider the co-occurrence and co-occurrence restrictions of various subject case and Mood (manifested in the type of mood) in (79) below: (The presence of mood in accusative subject constructions reflect the reported dialectal differences)

(79)

<table>
<thead>
<tr>
<th>Case</th>
<th>+Mood₁ Agr [+ Ind] or[-Ind]</th>
<th>+Mood₂ Agr [-Ind] [-Cond]</th>
<th>-Mood Agr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Genitive</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Accusative</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Each box marked with a [+] (79) gives us a structure in Turkic languages:

(80) Clause types in Turkic languages:

(i) Nominative Subject & +Mood₁ Agr = Indicative Root Clauses, Conditional Clauses;
(ii) Nominative Subject & +Mood₂ Agr = Optative, Imperative Clauses
(iii) Nominative Subject & -Mood Agr = Adjunct Clauses (non-conditional)
(iv) Genitive Subject & -Mood Agr = Complement Clauses, Relative Clauses.
(v) Accusative subject & +/- Mood Agr = ECM

The fact that Genitive subject does not co-occur with +mood agreements is accounted by the fact that they are factive clauses. Factivity entails an epistemic certainty and lack of mood is predicted. Presence of mood (optionally or obligatorily) or absence of mood is irrelevant. Accusative subject ECMs since they lack epistemic modality. These facts render both of the non-nominative constructions ‘ECMs’, with the difference being in the head that selects them and licenses the subject within. The availability of mood within Acc subject ECMs corresponds
to a verbal functional head licensing the subject case and selecting the embedded clause; Gen subject ECMs correspond to a nominal functional head (selecting the clause in the case of noun complements) and licensing the Genitive subject.

Based on the distribution of various instantiations of subject-case and mood marked as agreement in clausal structures in Turkish I propose that subject case and agreement mark the (in)dependence of a clause to a higher clause:

(81) **Syntactic and Semantic Dependency of Clauses**

(i) Subject NOM case marks syntactic independency, non-NOM (Genitive or Accusative) case marks syntactic dependency.

(ii) Two paradigms of clausal AGR marks independency of the clause in terms of mood; the phrasal paradigm marks *lack of mood*, or dependency in terms of mood, when it appears on subordinate clauses.

(iii) Permutational combinations of two kinds of subject case and two kinds of agreement paradigms [+/-Mood] the degree of dependency.

Based on the distributional arguments above, I propose the following continuum of clausal dependency in Turkic languages:

(82) **Continuum of Dependency in Turkic (Turkish, Kazakh)**

<table>
<thead>
<tr>
<th>-Dependent</th>
<th>Clause type</th>
<th>Case</th>
<th>on</th>
<th>Agreement</th>
<th>Epistemi</th>
<th>Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR=Transitive verb, PV =passive verb</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subject</td>
<td>On predicate</td>
<td>c Modality</td>
<td>Epistemic Modality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>--------------</td>
<td>------------</td>
<td>-------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Root Clause</td>
<td>Nominative</td>
<td>Mood₁</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Adjunct Clause A [-Indicative]</td>
<td>Nominative</td>
<td>Mood₁/₂</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Adjunct Clause B [+Indicative]</td>
<td>Nominative</td>
<td>ø Mood</td>
<td>√ Compl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Subjunctive Complement Clause</td>
<td>Nominative</td>
<td>Mood₂</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Finite Comp C.</td>
<td>Nominative</td>
<td>Mood₁</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Comp Clause</td>
<td>Genitive</td>
<td>-Mood</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECM</td>
<td>Accusative</td>
<td>Mood₁/ ø</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The first column in (82) gives the location of the clause on the dependency continuum; the second gives the name of clause type. The second column gives the kind of Case we observe on the subject of the clause. The third column gives the paradigm that the Agreement on the predicate of the clause belongs to. The fourth column tells us whether that clause is allowed to occur in a subject position of a higher clause. The fifth column gives the availability of Epistemic Modality. The sixth column gives us whether the clause has mood or not, and as such repeats the facts illustrated by the third column, i.e. Agreement.

The initial column of the table in (82) has a [-dependent] label at the top and a [+dependent] label at the bottom. The arguments for this ordering come from the basic claim in this dissertation and the empirical facts on the table. Based on the proposed analysis of
Nominative and Genitive Case-licensing, and the syntactic properties of available clause types given in the table in (82), I argue that syntactic dependence of the clauses to the matrix clause is not a binary/polar phenomenon; it is a continuum. Case on the subject of the clause along with the Agreement on the Verbal Complex marks the degree of dependence.

The Root Clauses and Conditional Clauses in Turkish are both syntactically and semantically (mood-wise) independent at clausal level, as marked by their [Nominative Case +Mood, Agreement]. Clausal level semantic independency refers to the Mood on the clause. At discourse level these clauses are semantically dependent to other clauses in the discourse.

The Subjunctive Clauses are syntactically independent, hence the Nominative Subject, as well as semantically independent from the higher clause in terms of Mood, hence the Mood₂ Agreement. They differ from the clauses in root clauses in that they may occur as complements of certain verbs or postpositions. The difference in the Agreement Paradigm reflects this unique relation.

The non-conditional Adjunct Clauses are syntactically independent yet semantically dependent, hence the Nominative subject yet [–Mood] Agreement.

The Complement Clauses and Relative Clauses are dependent both syntactically and semantically; hence the ECM genitive subject and –Mood Agreement. Accusative subject ECMs are syntactically dependent yet optionally independent in terms of mood.

The generalizations above help us detect the difference between Complement Clauses and Adjunct Clauses is marked in syntax: Case on the subject and/or lack or existence of mood marker (agreement) on the verbal predicate.

4.5. Conclusion
In this chapter, I have given empirical evidence supported by conceptual arguments to show that Nominative case is licensed by a composite feature in Turkish and possibly across languages. This feature consists of mood and Epistemic Modality. The manifestation of Epistemic Modality might vary parametrically in terms of the kind of epistemic modality. The basic assumption is that tense is kind of epistemic modality. The licenser of the case on the subject is neither Tense only in English type languages nor is it Agreement in Turkish type languages.

I have also presented a new approach to classifying agreement paradigms in Turkic languages. I have shown that one of the semantic functions of case on the subject is to mark the degree of the dependency of the clause and inform the speaker of the status of the proposition s/he is about to hear. Subject Case is used also as a means of discourse requirements. Its close link to the presence of mood and modality features reflects this secondary function at the discourse level.

I have also argued that one of the semantic functions of agreement on the predicate, apart from identifying the subject is to convey the semantic link of the clause to the matrix and indicate the in/dependence of the clause to the matrix clause by marking the presence or absence of mood. I have accounted for Turkish ECMs by a cross-dialectal analysis that accounts the reported facts in any dialect.

The major theoretical implication of this chapter is that this research provides an alternative account for Nominative Case licensing that supports the uncoupling of Case and Agreement in Chapter 2. The previous chapter (Chapter 3), uncouples temporal interpretation and Nominative Case licensing. These are, in fact, the major theoretical implications of this
dissertation.
CHAPTER 5

Conclusion

This chapter concludes the dissertation. In (5.1.), I will review the core data presented in Chapter 1 and the proposed analysis of the data. In (5.2.), I present further questions addressed in the course of the research and possible answers to the questions. In (5.3.), I discuss the major theoretical implications of the proposed analysis.

5.1. What the Proposed Analysis in this research accounts for

This research provides an analysis to the contrastive data in Chapter 1 (12&13), repeated here as (1&2):

(1) Ben-Ø [Ali-nin cam-ı kır-idi zaman]ı biliyor-du-m
   I-Nom -GEN glass-acc break-DIK-agr N time-Acc know-prog-past-1sg

   ‘I knew when Ali broke the glass’
   ..... [S-GEN Obj-acc V-DIK-AGR Noun]acc…….. Complement Clause


   ‘I knew the truth when Ali broke the glass’
   ..... [S-NOM Obj-acc V-DIK-AGR Comp ]…….. Adjunct Clause

The example in (1), factive complement clauses, and other instances of Genitive subject in Turkish adjunct are analyzed in line with Miyagawa (1993) and Ochi (2001). I have analyzed
(1) as a relative clause construction where the *zaman/time* is a head noun and an Agree relation established between the Genitive subject and the nominal functional projection (D/K) licenses the Genitive Case on the subject. The clause is in fact an ECM construction that lacks a component of the the complex Nominative Case feature, mood. Being factive, they are [+epistemic]. The difference of (1) from a typical Accusative subject ECM (5 below) is (a), the missing component of the Nominative Case feature: (5) lacks epistemic modality; or (b), in the nature of the external head that licenses the subject. Genitive is licensed by a nominal, Accusative by a verbal external head.

(2) and similar adjunct clauses are analyzed as full CPs with a lexically filled Complementizer that marks modality following Frajzyngier (1995). The lexical item *zaman/time* in (1) is a complementizer, not a noun, despite its similarity in surface form.

I have based my analysis on the structural differences among three data in Turkish that have identical predicate forms. The corresponding data in Chapter 1 (7-9) is repeated here as (3-5):

(3) **Root Clause**

Kürşat-∅ gel-di-∅.

-Nom come-Perf/Past-3 s.agr

‘Kürşat came/has come’

(4) **Finite Complement Clause**

Ben-∅ [Kürşat-∅ gel-di-∅] san-di-m.

I-Nom -Nom come-Perf/Past think-Perf/Past-1 s.agr

‘I thought Kürşat came/has come’
I have given distributional arguments to argue that (3) and (4) allow epistemic modality and mood, whereas (5) does not allow epistemic modality. Consequently the complex mood/epistemic modality feature is absent in (5), hence the ECM.

I have argued that the difference between (3) and (4) is due to the restriction on possible mood types in the latter. Finite Complement Clauses are restricted to the [+indicative]. I have accounted in a uniform way for the various reported dialects of Turkish where agreement in ECMs is either obligatory, optional or ungrammatical. I have also argued that the dialectal differences are irrelevant for Nominative Case licensing purposes. I have suggested that the optional nature of agreement in Turkish (and in European Portuguese) is in fact optionality in terms of the presence of mood. The same argument holds for any dialectal variance in Turkish. Mood, when present, does not suffice to license Nominative case in the absence of epistemic modality, therefore is not required. When it is required, it is required for independent reasons.

I have also discussed data from various languages, i.e. English, European Portuguese, Modern Greek, Catalan, to extend my analysis to other languages.

I have proposed a new typology of Agreement paradigms in Turkic languages, and argued that the kind of subject case and the paradigm (as well as absence/presence) of agreement on the predicate of a clause marks the syntactic (in)dependence of a clause and have given a continuum of clauses in Turkish.

I have proposed the following feature configurations for possible clausal constructions:
(6)  a. Possible mood features on C: [+/- Indicative]
    b. Possible finiteness features on C:
       C [+/- Finite] if C is [+Indicative]
       C [+ Finite] if C is [-Indicative]

(7)  Possible finiteness features on F(iteness head):
    a. Root Clauses: F [+ Finite] and C is [+Finite];
       Subordinate clauses: F [α Finite] when C is [α Finite]; [αFactive]
    b. Root Clauses: [+/-Factive] when C is [+Indicative]; [-Factive] when C is [+Factive];
       Subordinate Clauses: [+/-Factive] when C is [+Indicative]; [-Factive] when C is [+Factive].

This approach predicts that Epistemic Modal contexts in the Indicative mood where both
the C and the F would be [+ Finite] would license Nominative. In contexts where there is no
morphological epistemic modality, another kind of epistemic modality, i.e. tense is necessary to
license Nominative Case. Lack of both would create ECM environments. This prediction is
attested by the European Portuguese facts discussed in Chapter 4. The generalization on the
complementary distribution of European Portuguese EP IIs and non-ECM Prepositional Island
Constructions (PCIs) is repeated below:

(8)  a. EP IIs and non-ECM PCIs are CPs and they occur with Nominative subjects.
    b. PCIs occur with Accusative subjects.

I have argued in Chapter 4, that PCIs with Accusative subjects are ECMs and consist of
AsP only, just as in English and Turkish. As for the generalization in (11a), the availability of a
[+Finite] μN at the [+Indicative] Cs, and the fact that these Cs are selected by epistemic verbs
overrides the morphologically available Agr analysis. IIs are possible within a certain mood
category [+Indicative]. In my analysis, C in these structures would bear an uninterpretable Finiteness feature in the sense of uT in P&T (2001) and the obligatory T-C movement accepted in EP by Raposo would be motivated for the deletion of this feature. PICs on the other hand are not CPs, and, lacking C and a finiteness feature, they are bound to be ECMs, which they are.

Another prediction of the proposed analysis where mood/epistemic modality are responsible for the finiteness feature on C and F, it is not surprising to find no tense in [-indicative] clauses. This is attested in English as well as other languages. We do not observe tense with modals nor do we in subjunctives:

(9)  
a. Ju-Eun must be at the gym.
b. It is imperative that she be at the gym.
c. She is at the gym.

The Nominative case on the subject in (9 a-c) above is licensed by the same finiteness feature on the same heads: the uninterpretable uN at C and the interpretable uN at F(P). The morphological manifestation of the feature in (9a) is an epistemic modal, a null (epistemic) morpheme in (9b) and a kind of epistemic modality, i.e. tense in (9c). If a clause lacks non-indicative mood it is a subordinate clause; it needs Modality to be finite cross-linguistically. If modality is not marked lexically or morphologically, it must have a complementizer. When Modality is present or when the structure is [-Indicative], finiteness is a given, and there is no need for tense in English.

5.2. Further questions addressed and answered

In this section, I would like to review the questions answered based on the proposed analysis.
Q: What does definiteness at a clausal level account for in syntax?
A: The distribution of subordinate clauses: why certain subordinate clauses can/cannot occur in sentence initial and/or subject position: subject-object asymmetry of that clauses in English, complement clauses of Hungarian, subordinate clauses that cannot occur in subject position in Turkish.

Q: What is the relation between factivity and definiteness at a clausal level?
A: Factivity entails definiteness but not vice-versa; therefore, factive clauses are definite but definite clauses are not necessarily active.

Q: How is definiteness marked on clauses?
A: By a complementizer (not any) in English, by case or nominal Agr on the lexical noun head in Turkish.

Q: What is the relation between Complementizers licensing Modality and those licensing definiteness?
A: No answer as of now.

Q: What does a C with a Mood feature and a Finiteness Phrase with an Epistemic Modality feature bearer account for in syntax: (assuming that Tense as a specific kind of Epistemic Modality to incorporate English past tense)
A: Such a complex feature accounts for the nominative licensing feature even in tense-less clauses in a uniform way in English, EP, and Italian; it also accounts for the nominative licensing feature in clauses with tense and agreement in Turkic languages. It also provides an account for the contrast between finite complements and ECM in Japanese, as the only feature a Japanese ECM lacks is Mood.

Q: What are the semantic functions of Case and Agreement?
A: Case marks specificity at a phrasal level, Agreement marks the presence or absence of Mood. Subject case is an indication of (in)dependence of a clause.
5.3. Theoretical Implications

The major theoretical implication of this dissertation for the theory is the disconnection between *case* and *agreement*. The theory is simplified in terms of moving away from the parametrization of finiteness, i.e. Nominative case in terms of tense vs. agreement-based languages.

Secondly, I argued for a Nominative case-licensing feature as a complex feature consisting of two components: epistemic modality and mood. This feature licenses subject case clause internally in finite constructions. This redefinition may help us account for Turkish as well as languages where subject case varies with mood (Arabic, Navajo), languages with no tense morphology but only epistemic modality is observed (Native American languages studied by Chafe and Hockett), nominative subjects observed in infinitivals (European Portuguese, Italian) in a uniform way along with English.

Thirdly, by giving an account of the obligatory nature of a complementizer in factive complement clauses and complements of non-bridge verbs based on *definiteness* as a clausal feature, it brings supportive evidence to the syntactic work based on the analogy between nominal and verbal clause structures (Kiss 1994, 1997, Ogawa 2001, among others).

Fourthly, I have given evidence from Turkish to show that *covert phrasal movement* as well as *Agree* and *Move* are necessary syntactic operations. Covert phrasal movement is provided evidence from Turkish Genitive case licensing, and Agree from Accusative subject case licensing.
Finally, this research brings forth the significance of case in the syntactic structures and attributes a new function to agreement in terms of marking the presence and absence of mood. As such the syntactic (in)dependence of clauses find a natural account through a feature based theory.

For linguistic study on Turkish and other Turkic languages, this research clears the field of more than one misleading syntactic test by accounting for uncontrolled factors in the structures and presenting arguments for a uniform restriction on the movement of arguments. It also presents a new classification of Agreement paradigms for Turkic languages.

Finally, the analysis in this dissertation still requires much more empirical and theoretical work, which I hope to accomplish in further collaboration with the linguistics community.
Appendix to Chapter 2: A Case-Based Constraint on Movement in Turkish

This appendix is concerned with the relevance of syntactic movement tests used in Turkish for two purposes: to determine the position of the verb (Kural 1993), AND to distinguish various clause types (Kural 1993, George & Kornfilt 1981). I will present an analysis for restrictions on scrambling in Turkish that is also observed in other languages (See Aygen 2000c,d for Turkish, Han 1998 for Hindi, Karimi 1998 for Persian).

1. Post-Verbal scrambling (PVS)

Post verbal scrambling has been used as a test to distinguish structural differences between clauses in Turkish. Genitive subject clauses are argued not to allow PVS and Nominative-subject finite clauses are argued to allow PVS. I will try to show that this is not a valid test in Turkish because the unavailability of PVS is due not the type of the clause but to the case on the moved argument.

Considering that postverbal constituents are CP-adjoined in Turkish, Kural (1993, 1997) argues that only if the verb is at the highest head it will force the post-posed elements to adjoin the highest projection.

We do not have independent evidence to claim that V is at C in one of these structures. In fact, we have evidence suggesting that the verb is not as high as C. The evidence comes from finite counterfactual conditionals in Turkish. Note that the bound morpheme {-DI} that marks counterfactuals when it follows the conditional morpheme has a free form, idi. (1) is a counterfactual proposition where the counterfactuality marker is a bound morpheme:
(1) Ben tı kır-sa-ydı-m vazoyu, parasını ver-di-m.

I break-cond-past-lagr vase-acc money-acc give-aor-past-lagr

‘If I had broken the vase, I would have paid for it’

(2) below illustrates the free form *idi*, which does not block postverbal scrambling. If the verb were at C as a lexical head, the free form would be at a higher C head (maybe Focus in terms of Rizzi 1997), and therefore it would be expected to block adjunction to CP.

(2) Ben tı kır-sa idi-m vazoyu, para-sı-nı ver-di-m.

I break-cond past-lagr vase-acc money-acc give-aor-past-lagr

The grammaticality of (2) indicates that post-verbal scrambling, that is, adjunction to CP is allowed regardless of the position of the verb.

Secondly, Kural argues that T-to-C is a regular process and the ungrammaticality of adjunction to the embedded non-finite CP in (3b) is accounted for by the general prohibition against adjunction to arguments (Chomsky 1986). This would also account for the grammaticality of (3&4) which indicate that finite clauses allow post-verbal scrambling:

(3) a. Ahmet-Ø [tı tı ye-di ] Kürsat-Ø elma-yı san-di-Ø

-nom eat-past -nom apple-acc think-past-agr

‘Ahmet thought Kursat ate the apple’

b. *Ahmet-∅ [ Kursat-in tı ye-dig-i]ni elma-yı san-di-∅

-nom -gen eat-asp-agr-acc apple-acc think-past-3sg
'Ahmet thought Kursat ate the apple'

Along the lines of Kural’s analysis, data in (2-4) would imply that finite clauses must be adjuncts, whereas factive {-DIK} clauses are complements and the contrast is expected, which is refuted by the case-dependency of ECM subjects.

Note that the verbs that select finite, i.e. Nominative subject clauses, also select Accusative subject ECM complements. Consider the grammaticality of (3&4) above with a finite embedded clause and those of the ones with ECM (5&6). ECM complements, which are [+tense] and [+agreement] in Turkish seem to behave unlike finite embedded clauses because they do not allow post-verbal scrambling:

(5) *Ahmet-Ø [t₁ t₂ ye-di-Ø] Kürşat-i₁ elma-y₁ san-di-Ø
   -nom   eat-past-agr   -acc apple-acc   think-past-agr
   intended reading: ‘Ahmet thought that Kürşat ate the apple’

(6) *Ahmet-Ø [t₁ t₂ ye-di-Ø] elma-y₁ Kürşat-i₁ san-di-Ø
   -nom   eat-past-agr apple-acc   think-past-agr

If Kural’s analysis is correct, we would expect post-verbal scrambling in ECM constructions to be grammatical since, bearing both ‘tense’ and agreement and occurring without case on the clause, they must be adjuncts as well. However, the data does not attest Kural’s
analysis. The ungrammaticality of (5&6) cannot be due to a difference in the nature of the clause. ECM constructions are argued to be smaller than CPs, and the major motivation for such a claim comes from the observation that they do not allow full finite inflection in structures like English. We should note that the inflectional make up of ECM seem identical to that of finite root clauses. I will argue below that these facts are due to a restriction on scrambling arguments over other arguments with the same case.


Extraction is allowed when the dislocated item bears a different case than the complement clause it is extracted from and is adjoined to: (Observation Sezer 1978). The restriction refers to a Relativized Minimality Effect (RME) in terms of Rizzi (1990). Previously, it was assumed that there is a difference between the so-called Non-Finite Complement clauses ({-DIK} clauses) and Finite Direct Complements in terms of the availability of P(ost)V(eral)S(crambling) to the clause initial position based on the contrastive data given below:

(7) Factive Complement Clause:
*Ben-Ø [Ali-nin tı kır -diş -ın ]ı cam-tı, san - iyor -du - m
  I-Nom      -GEN      break-Perf-agr-Acc glass-acc      think- prog- past-1sg
‘I knew that Ali broke the glass’

(8) Finite Complement Clause
In fact, this contrast is not real because both (7) and (8) are subject to the same constraint. It is not correct that factive complement clauses do not allow PVS. They do allow PVS when the scrambled argument is not accusative marked like the clause itself: the subject that is marked Genitive (in 9) is allowed to adjoin to the clause that is marked Accusative:

(9) Ben-Ø [t₁ ca₄m-ı kır-dığ -ı₄n ]-₄l-i₄n₁₄n₁ san-iyor-du-m
   I-Nom glass-acc break-Perf-agr -Acc -GEN think-prog-past-1sg
   ‘I thought that Ali broke the glass’

An Accusative marked object may indeed be scrambled out of a factive complement clause if the clause is *not* marked Accusative:

(10) Ben-Ø [Kürşat-ın t₁ kır -dığ -ı₄n ]-a ca₄m-ı₁ inan-iyor-um.
    I-Nom -Gen break-Perf-agr-Dat glass-Acc believe-prog-1sagr
    ‘I believe that Kürşat broke the glass’

Based on the observations above, I propose the constraint in (11) below for Turkish:

(11) *Arguments cannot be scrambled out of clauses with the same case morphology.*

Karimi (1998) proposes a similar Condition on Scrambling for arguments scrambling over other arguments with the same grammatical function. In the section below, I will try to show how (un)availability of extraction out finite and non-finite clauses in Turkish is predicted
by (11) above.

3. Presence and Absence of Subject-Object Asymmetry in Turkish Embedded Clauses

(Aygen 2000b,c)

Data below illustrates interesting observations concerning the subject/object asymmetry that may be accounted for by (11) above. (12&13) are constructions with factive embedded clauses. They do not allow a full tense paradigm and their subjects appear with overt genitive case morphology:

(12) □ subject extraction

Ercan-ın, Kürşat- Ø [t, kek-i acele ye-diğ-i]ni söyle-di.

-Gen -Nom cake-acc in a hurry eat-nom-agr-acc tell-past

‘Kürşat told that Ercan ate the cake in a hurry’

(13) □ object extraction

Kek-i, Kürşat- Ø [Ercan-ın t, acele ye-diğ-]ni söyle-di.

cake-Acc -Nom -Gen in a hurry eat-nom-agr-acc tell-past

‘Kürşat told that Ercan ate the cake in a hurry’

These factive complement clauses do not exhibit the predicted subject/object asymmetry, whereas finite ones do exhibit it as may be observed in (13&14) below:

(14) *subject extraction

*Ercan- Ø Kürşat- Ø [t, kek-i ye-di] san-iyor.

-Nom -Nom cake-acc eat-past think-prog
‘*Kürşat thinks Ercan ate the cake’ * in the intended reading
‘Ercan thinks Kürşat ate the cake’√ as matrix subject

(15) □ object extraction
Kek-i  Kürşat- Ø [Ercan- Ø t_i ye-di] san-iyor.
cake-Acc -Nom -Nom eat-past think-prog
‘Kürşat thinks Ercan ate the cake’

Extraction out of ECMs is constrained by (11) as well: the Accusative subject of the ECM can scramble over the Nominative subject of the higher clause (16a), however, it cannot undergo PVS over the Accusative object (16b). The Accusative object cannot move over the Accusative subject of the ECM (17) as predicted by (11):

(16) a. □ subject extraction
Erca-n-i  Kürşat-Ø [t_i kek-i ye-di] san-iyor.
-Acc -Nom cake-acc eat-past think-prog
‘Kürşat considers Ercan to have eaten the cake’
b. *PVS of subject
Kürşat-Ø [t_i kek-i ye-di] Ercan-i  t_i san-iyor.
-Nom cake-Acc eat-past -Acc think-prog
The available reading regards the higher Acc argument to be the ECM subject:

‘Kürşat considers the cake to have eaten Ercan’

(17) * object extraction
cake-Acc -Nom -Acc eat-past think-prog
The available reading regards the higher Acc argument to be the ECM subject:

‘Kürşat considers the cake to have eaten Ercan’
Note that extraction of a non-Nominative argument is allowed it moves over another argument, i.e. the Nominative matrix subject in (12, 13, 15, 16a) but the extraction of Nominative subject over another Nominative subject (14), or extraction of an Accusative subject over another Accusative argument (16b & 17) are not allowed.

4. On the Condition on Long Distance Scrambling (Karimi 1999)

The RME effect observed above shares the insight of Karimi (1999)’s condition on LDS; however, I will argue that although her account predicts that of the two elements bearing the same feature in terms of grammatical function only the higher of the two may scramble, this prediction is not attested in terms of grammatical function in Turkish. Constituents can scramble over elements with the same grammatical function (subject of non-finite clauses) and elements with different grammatical function block scrambling. (subject of ECM superficially blocks object of ECM) in Turkish. I will argue that restating her condition on LDS by its relevance to case rather than grammatical function resolves the two contradictory Turkish data.

Karimi (1999) argues that, although scrambling is not subject to M(inimal)L(ink)C(ondition) of Chomsky (1995) –as has been discussed in Saito and Fukumi 1998- it becomes relevant when there is more than one element bearing the same feature and competing for the same landing site. She proposes a condition on LDS (given in (18)). She suggests a discourse feature D on C that triggers LDS; D on C is sensitive to certain properties of YP in that if there is an XP identical in grammatical function to YP in a position closer to C, it blocks the movement of YP:
(18)  * Condition on LDS (Karimi 1999)

LDS is blocked if

\[
* YP_i \alpha \ XP\alpha \ [ t_i ]
\]

where \( \alpha \) represents a specific grammatical function.

Once the grammatical function is the basis of the analysis, the condition on LDS predicts a subject/object asymmetry in non-finite clauses in Turkish since (18) would rule out scrambling of a lower subject over a higher subject yet such a movement is perfectly grammatical in Turkish (see data (12 & 16a). Furthermore, this condition does not account for the unextractability of ECM objects in (16b) since there is no XP with the same grammatical function (that of object) intervening; yet, there is an XP, the lower subject which case marked accusative just like the ECM object. Considering the Condition on LDS in terms of Case rather than grammatical function would solve the puzzle. If a condition where Case is relevant rather than grammatical function per se is employed, the presence of subject-object asymmetry in finite embedded clauses and lack of it in the so-called non-finite (factive complement) clauses is also accountable since the higher subject is nominative in the data and the lower subject is in the Genitive case in the non-finite clauses and accusative in the ECMs whereas it is nominative in finite embedded clause. The genitive subject carries the same grammatical function as the higher subject yet differs in case and does not violate the Condition on LDS rephrased in terms of case. Consider the cases of scrambling out of deeply embedded constructions below:

Although there is no subject/object asymmetry in non-finite clauses in Turkish, the ungrammaticality of (20) appears to conform to the rephrased version of Karimi’s condition on LDS by banning subject scrambling over another subject.

Note that Japanese data below contradicts both Karimi’s condition and the RME effect observed in Turkish. Susumu Kuno (pc) reports that scrambling a Nom argument over another Nom argument is possible in Japanese. Japanese allows double Nom constructions as given in (21) below:

(21) a. Taroo-ga Hanako-ga suki-na koto
Nom Nom fond-of be fact
‘the fact that Taro likes Hanako’

b. Taroo-ga torukogo-ga deki-ru koto
-Nom Turkish Nom can-Pres fact
‘the fact that Taro can (speak) Turkish’

Given sufficient contexts, Nominative-marked object NPs can be fronted by crossing
over the Nominative-marked subject NPs in Japanese:

(82) a. Kono kohii ga Taroo ga hoka no dono kohii yori mo suki na koto
    this coffee Nom Nom other any coffee than fond-of be fact
    ‘the fact that this coffee, Taro likes better than any other coffee’

b. Torukogo ga Taroo ga eigo yori mo yoku deki-ru koto
    Turkish Nom Nom English than better can-Pres fact
    ‘the fact that Turkish, Taro can (speak) better than English’

Japanese facts above favor Karimi (1998) in that grammatical function rather than case seems to
be the relevant phenomenon. I will conclude by assuming that this is parametrically determined.
Appendices to Chapter 4

APPENDIX A: Three Types of Syntactic Operations in Turkish : Is There ECM Raising in Turkish?

The insights of Miyagawa (1993) and Ochi (2001) in their analyses of Japanese GA/NO constructions in analogy with ECM raising are very convincing cross-linguistically. I have argued above in this chapter that the Turkish genitive constructions discussed in Chapter 2&3 are basically ECM constructions. I have argued that the difference between Genitive subject constructions and typical Accusative subject ECMs is due to the nature of the external head that licenses the case on the subject. It is verbal in the latter and nominal in the former.

In this appendix, I will argue that there is a difference in the syntactic mechanism by which ECM Genitive and ECM Accusative are licensed. The syntactic operation that allows the Genitive-licensing relation is a *covert phrasal movement* as argued in Chapter 2. I will provide evidence to show that the same mechanism is not involved in Accusative case licensing in ECMs. I will argue that the recently proposed *Agree* mechanism (the predecessor of which is *feature movement*) that does not effect scope is the syntactic mechanism that licenses Accusative subjects. I will depart from the former analyses of ECM in Turkish, which adopt a phrasal movement. I argue that raising in ECM is parametrized across languages and Turkish ECM subjects are *not* raised to the higher clause, neither by overt phrasal movement nor by covert phrasal movement of the kind I discussed in Chapter 2 for genitive case licensing.

I will provide empirical evidence to argue that Turkish is not like English or Japanese (Kuno 1976, among others) in terms of the ECM subject raising to the higher clause, contrary to the previous claims on Turkish (Kornfilt 1977, Moore 1988, Kural 1993, Zidani-Eroglu 1997, Ozsoy (to appear), among others). It has been recently argued that raising is limited to the Spec
of the lower CP, a position where ECM is possible because it is a clause-edge position and the subject is still within the interpretational scope of the embedded clause (Bruening 2001). This is compatible with the proposal that all ECMs are in fact CPs with not relevant Nominative case features. Following are my arguments underlying this analysis.

Turkish ECM subjects have been argued to raise just like their English counterpart based on NPI licensing (1) below (Zidani-Eroglu 1997):

     -Nom noone-Nom come-Neg-Past think-Past
  
     -Nom noone-Acc come-past think-Neg-Past

In (1a), we observe a finite complement clause, where the NPI within the clause is licensed by the Neg on the predicate within the clause. In (1b), however, we have an ECM where the NPI is licensed by Neg on the higher predicate.

If this is correct, we would expect adverbs to be interpreted within the higher clause when the ECM subject has been raised to the higher clause:

(2)  Ben Kürşat-ı her zaman [geç kal-iyor] san-iyor-du-m
     I -Acc always be late-prog think-prog-past-1sg

‘I thought Kürşat was always being late’

NOT ‘I always thought Kürşat was being late’
The adverb is interpreted as the lower VP adverb, not as part of the higher VP. Zidani-Eroglu (1997) presents similar data and gives the interpretation of the adverb as part of the higher VP. The adverb she uses is a frequency adverb. She argues that the ECM subject interacts with the matrix adverb (4a-b) the same way that the indirect object in a matrix clause (3a-b) does:

\[(3)\]
\[a. \ [s_1 \text{Ali Banu-ya sık sık } [s_2 \text{Can dövül-dü} ] \text{ de-di}]\]
\[\text{Ali-Nom Banu-Dat often Can-Nom beat-Pass-Past-3sg say-past-3sg}\]
\[\text{‘Ali often told Banu that Can was beaten’}\]
\[b. \ [s_1 \text{Ali sık sık } \text{ Banu-ya } [s_2 \text{Can dövül-dü} ] \text{ de-di}]\]
\[\text{Ali-Nom often Banu-Dat Can-Nom beat-Pass-Past-3sg say-past-3sg}\]
\[\text{‘Ali often told Banu that Can was beaten’}\]

First of all, it is not exactly correct that (3a-b) have the same meaning. As has been discussed in detail in Aygen-Tosun (1998b, especially 1998c), frequency adverbs in Turkish are TP adverbs and also have a focal scope over the constituent they c-command. Therefore, (3a-b) differ in terms of their focal scope. The closest form the meaning difference of which can be stated in English is the cleft structure (4a-b):

\[(4)\]
\[a. \ \text{It is that Can was beaten that Ali told often Banu.}\]
\[b. \ \text{It is to Banu that Ali told that Can was beaten.}\]

Similarly, Zidani-Eroglu (1997) assumes that a frequency adverb within the ECM clause is interpreted as modifying the matrix verb, and presents this as an argument for ECM subject to be raising to the higher clause. I would like to note that not only the interpretation as such is not
correct but also impossible given preverbal focus position in Turkish. Consider the data (from Zidani-Eroglu 1997) below:

(5)  $\left\{ \begin{array}{l} S_1 \text{Ali} \\ S_2 \text{Can sık sık dövül-dü } \text{san-ır.} \end{array} \right.$

\begin{align*}
\text{Ali-Nom} & \quad \text{Can-Nom} \quad \text{often beat-Pass-Past think-Pres} \\
\text{‘Ali believes Can to have been beaten frequently’}
\end{align*}

The interpretation for (5) is argued to be ambiguous between a matrix scope of the adverb and the embedded scope of the adverb. In fact, the structure is not ambiguous. The only available reading is the one where the adverb has embedded scope. It cannot be ambiguous because of two independent properties of Turkish:

(6)  (i) Adverbs, as well as many other scopal elements, take surface scope unless there is another scopal element that they have to scope over for interpretational purposes in Turkish (Aygen in prep, following Fox 2000).

(ii) The preverbal position is the default focus position and the constituent, be it an adverb or an argument, always bears the focus and is interpreted there (Kornfilt 1997, Goksel & Ozsoy 2000, among others).

There is no way in any construction for a focused constituent to take scope in a different clause regardless of the nature of the clause. Since there is no interpretational evidence for covert phrasal movement, and since feature movement, that is the predecessor of Agree, does not alter scope relations, I will argue that the ECM subject is not raised into the higher clause at LF. An Agree relation is established between the higher verb and the ECM subject that is at the clause edge a la Bruening (2001).
The evidence from Turkish ECM above suggests that *Agree* is a syntactic operation with empirical support from Turkish. Recall that I have also argued that *covert phrasal movement* is the syntactic mechanism that licenses Genitive subject construction discussed in Chapter 2 and 3. Considering that Turkish is a scrambling language as an indication of *overt movement*, this research shows that we need *three* types of syntactic operations in our grammar as suggested in Pesetsky (2000), not two as suggested in Chomsky (1995, 1998, 1999).

**Appendix B- European Portuguese**

One of the most commonly discussed languages where agreement is a parameter of finiteness is European Portuguese (henceforth EP) because EP has Inflected Infinitives (IIs) where the subject is in the Nominative and the only overt inflectional morphology in these structures is Agreement.

(7) *European Portuguese Inflected Infinitives (Raposo 1987)*

<table>
<thead>
<tr>
<th>European Portuguese Inflected Infinitives (Raposo 1987)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sera difficil</td>
</tr>
<tr>
<td>It will be difficult</td>
</tr>
</tbody>
</table>

The major claim of Raposo (1987) that discusses the issue is the following:

(8) *Agr in its Infl node must be case marked if it is to assign Nominative Case to the subject of its clause. Crucially, only if Infl raises to C where a governor external to the embedded clause may assign case to it.*

The facts about European Portuguese Inflected Infinitives (EP IIs) and their syntactic distribution are given below (Raposo 1987, 1989):

(9) a. EP IIs are *like* finite clauses in that they take lexical subjects with Nominative case.
   b. EPIIs are *unlike* finite clauses in that
      (i) they can occur only as embedded clauses,
they never occur as independent clauses,

they can never take the Comp that/que.

In (7), the main predicate is an adjective, and adjectives do not assign case. Therefore, there is no possibility for an ECM from the matrix adjective. Consequently, it must be Agr within the II that assigns Nominative in European Portuguese.


Consider (10a&b) below (from R&U 1990):

(10)  
a. ?* [e] Infl foram considerados [Agr [ os meninos ] inteligentes].
Were considered the children intelligent

b. O Luis considera [Agr [ os meninos ] inteligentes].
Luis considers the children intelligent

In (10a), Nom is not licensed, and in (10b), an ECM Acc subject is licensed. Consider that Raposo and Uriagereka (1990, henceforth R&U) assume that lexical heads do not have specifiers and as such, are not barriers for government. Incomplete sentence- you need a result clause for the “considering” clause. This explains the fact that VP is not a barrier, nor is the predicative adjective in (7). R & U account for the ungrammaticality of (10a) by arguing that AgrP is a barrier for government and hence the unavailability of Nominative Case. The problem with this analysis is assuming AgrP to be a barrier in (10a) but not in (10b) and (7). If Agr is a case licensing head, and it gets case via transmission from Infl, why is Nominative possible by this mechanism in (7) and (10b) and not in (10a)? (11) below is the structure assumed for (10a&b):
We will come back to this dual analysis of AgrP in our discussion of PICs in EP. The external syntactic distribution of IIs is as follows: they occur as complements of epistemic (think, believe, etc) and declarative (say, claim, etc) matrix verbs; never with volitional verbs (wish, want). Note that volitionals are Counterfactuals, and as such belong to a different Mood.

Raposo (1987) and R&U (1990) account for this distribution by arguing that epistemic verbs subcategorize for CPs. In these structures T-to-C is obligatory for Agr to be case governed. If Agr moves to C, it is implausible for AgrP to be a barrier.

2. PIC – Prepositional Infinitival Constructions in EU (Raposo 1989):
PICs have a different distribution than IIs, in fact, they are in complementary distribution with IIs:

(12) a. PICs do not occur as
   (i) a clausal subject in expletives
   (ii) a complement to factive and epistemic/declarative verbs
b. PICs occur
   (i) in isolation (data 13)
(ii)  in subject position (data 14)
(iii)  as a complement of volitional predicates (data 15)

(13)  Os meninos a fumarem! Isso é um horror.
The children Prep smoking! That’s awful.

(14)  Os meninos a fumarem e um espectaculo horrivel.
The children Prep smoking is an awful sight.

(15)  Eu quero [os meninos a trabalharem ja]
I want the children Prep working now.

PIC in the local context of a matrix transitive verb is an ECM:

(16)  Eu vi-os [ec, a trabalhar(em)]
I saw them Prep working

Interestingly, the Agr is given as optional just like the Turkish ECM Agr. Raposo (1989) clearly states that it cannot be Agr licensing case to the subject in (16); it identifies an empty category controlled by the lexical subject as the subject of the clause. The only empty category to be controlled from a higher clause is a PRO. The problem with this account is that, considering that Agr is possible in this structure, how come PRO is licensed? Another theoretical issue is that we do not know what happens to Nominative Case feature. In Chomsky (2000), an uninterpretable case feature would cause the derivation to crash if it is not deleted, and its deletion is possible by an agree relation of the head with a DP that bears the same feature. Licensing properties of pro in fact is a problem that needs to be investigated within the recent framework. We would have to assume that null pro also bears features and allows a deletion of the uninterpretable feature of the head.
Another property of PICs in EP is the following:

(17) * pro is impossible within PIC, possible within II  
   a. * Eu vi [pro a roubar(em) o automovel].  
       I saw pro Prep stealing the car  
   b. Eu vi [pro roubarem o automovel].  
       I saw pro to-steal-Agr the car

Raposo (1989) accounts for the contrast in (17) by arguing that pro must be licensed and governed by Agr; Agr does not govern the subject of PIC because of the preposition. Note that Agr and the infinitival verb are available in both constructions. Raposo and Uriagereka (1990) argue that AgrP is a barrier in (18a) for government of Infl on the Subject NP whereas Infl can assign Nom case in (18b).

(18) a. ?* Ontem em Beirut ficaram [os soldados feridos].  
       Yesterday in Beirut became the soldiers wounded  
   b. Ontem em Beirut ficaram [os soldados sem armas]  
       Yesterday in Beirut became the soldiers without guns

(19)=(18b)  
I’
On the other hand the occurrence of a Preposition is regarded as a barrier to account for the ungrammaticality in (18a) above. The Preposition in data (13-16), however, is not regarded as a barrier.

This discussion of European Portuguese facts does not intend to account for all the facts of EP and is restricted to remarking on the problems of regarding agreement to be a subject case licenser.


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