RESUMPTION, A'- CHAINS AND IMPLICATIONS ON CLAUSAL ARCHITECTURE

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RESUMPTION, A'- CHAINS AND IMPLICATIONS ON CLAUSAL ARCHITECTURE

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Thesis Abstract

Hasan Mesud Meral, "Resumption, A'- Chains and Implications on

Clausal Architecture"

This work investigates the nature of resumption and provides an analysis of how anaphoric dependencies occur in language. I raise the question whether resumption has any explanatory power on various grammatical phenomena such as binding, control and null object licensing which have been assumed in the generative literature as resulting from different licensing mechanisms and require different grammatical operations. In this respect, this study aims at extending the applicational domain of resumption from relative clauses to anaphor licensing, control and null object licensing.

I claim that resumption offers a valid solution which compromises the different requirements of these different phenomena with respect to locality. The idea in the dissertation is that the anaphors, PROs and null objects behave in the same way with a resumptive in that they form a unit with their syntactic antecedents (empty operator), then they split. The antecedent binds the grammatical formative inside the clause respecting a different sense of locality.

The dissertation also argues that the A- domain in Turkish is weak due to the problematic nature of A- domain operations. Instead, what Turkish instantiates is a rich A'- domain where different grammatical phenomena such as binding and control are licensed via operator-variable chains akin to resumption.

For the problematic aspects of Binding Theory conditions and the lack of pronoun-anaphor complementarity, the dissertation argues that Turkish follows a three-partite system where a third category exemplified by a complex pronominal expression *(kendi)si* subsumes the functions of regular pronominals and anaphors and other functions which cannot be expressed by these two grammatical formatives.

Tez Özeti

Hasan Mesud Meral, "Ardıl Gönderim, Ü'- Bağlılıkları ve Tümce Yapısı Üzerindeki Sezdirimler"

Bu çalışma ardıl gönderim konusunu araştırmakta ve doğal dillerde gönderge temelli bağlılıkların doğası üzerine bir çözümleme önermektedir. Çalışma, ardıl gönderim kavramının, şimdiye dek Üretici Dilbilgisi çerçevesinde farklı işleme mekanizmalarına tabi olup farklı dilbilgisel işlemler gerektirdiği varsayılan dilbilgisel süreçler olan Denetim, Bağlama ve boş nesne işleme konuları üzerinde açıklayıcı bir rolünün olup olmadığı sorusundan yola çıkmaktadır. Bu bağlamda çalışma yukarıda sözü edilen soruya olumlu yanıt vermektedir.

Çalışmada ardıl gönderimin yukarıda sözü edilen süreçlerin gerektirdiği yerellik temelli farklı koşullar için uzlaşmacı bir rolünün olduğu savunulmaktadır. Buna göre, dönüşlü adıllar, ADIL ve eylemlerin tümleç konumlarında bulunduğu varsayılan *adıl*ların, ardıl adıl gibi davrandığı, bir başka deyişle, öncülüyle ardıl adıl gibi türetim başında birlikte olup öncülün yukarı taşınmasıyla geride kalan dilbilgisel oluşumlar olduğu savunulmaktadır.

Bu çalışmada ayrıca Türkçede Ü- alanının kısıtlı ve zayıf olduğu, bunun yerine Ü'- alanının ardıl gönderim, Bağlama, Denetim ve boş nesne yapıları gibi dilbilgisel süreçlerin işlenmesinde daha etken bir rolü olduğu savunulmuştur. Çalışmaya göre, Bağlama Kuramı'nın sorunlu yönleri ve İngilizce gibi dillerde olan kişi adılı-dönüşlü adıl karşıtlığının Türkçede bulunmayışı, Türkçede farklı bir bağlama sisteminin olduğunu ve bu sistemde karşıtlık yerine kişi adılı, dönüşlü adıl ve *(kendi)si* tarafından oluşturulan üçlü bir ayrımın etken olduğunu işaret etmektedir.

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this modest work is dedicated to

my beloved fiancée

semra baturay

for her eternal love

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CONTENTS

ABBREVIATIONS

1sg	first person singular
2Sg	second person singular
3sg	third person singular
1pl	first person plural
2pl	second person plural
3pl	third person plural
ABL	ablative
ACC	accusative
AOR	aorist
CAUS	causative
CM	compound marker
COM	commutative
COMP	complementizer
CON	conditional
COP	copula
DAT	dative
EC	empty category
EVI	evidential
F	feature
FACT	factive
FUT	future
GEN	genitive
INF	infinitive
INS	instrumental
LOC	locative
NEG	negative
NEG.ABIL	negative ability
NO	null object
NOM	nominalizer
OP	operator
OPT	optative
PASS	passive
PERF	perfect
PL	plural
PRES	present
PROG	progressive
Q	question
REL	relativizer
REL.CL.	relative clause
RP	resumptive pronoun
TOP.PART	topic particle
UF	uninterpretable feature

ilim ilim bilmektir
ilim kendini bilmektir
sen kendini bilmezsen
bu nice okumaktır?

• • •

every inch of knowledge
the knowledge of self
should you not know yourself
studying is nonsense

Yunus Emre
14th century

CHAPTER I

INTRODUCTION

1.1. The Aim

Languages have been observed to have a phonologically realized element which occurs in the position where another element pronounced in a different position in the same structure is interpreted and where the former alternates with a phonologically null element. This element is labeled resumptive. An instance of this phonologically realized element is the one in relative clauses. Consider (1a) from Hebrew where a resumptive element occurs in the relativization site, the position where the relativized head is interpreted.

(1)[1] a. Dan yimca et ha-iSa Se hu mexapes *ec*
Dan will find the-woman Op he look-for

b. Dan yimca et ha-iSa Se hu mexapes *ota*
Dan will find the-woman Op he look-for her
'Dan will find the woman he is looking for'
Sharvit (1999:593) Examples (11-12) respectively

The italicized element in (1b) occurs in a position where the object of the relative clause, the head noun *ha-iSa* (the woman) is interpreted. Such elements have been labeled *resumptive* elements (McCloskey 1990). In contrast to (1a), the element *ota* (her) occurs in the position in which the phonologically null element occurs in (1a) and is interpreted to have the same reference as the head of the relative clause.

A resumptive structure involves a dependency between two positions in a configuration as illustrated in (1a-b) above. This dependency is the result of co-indexation between the constituents in the two positions, the interpretation of the two

[1] Examples are slightly modified for present purposes which have nothing to do with the content of the examples, but are simply related to the writing conventions. Throughout the dissertation, I will italicize the resumptive elements and their antecedents instead of using bold-face. Also, I will use *ec* which stands for *empty category* to illustrate gaps. For Turkish examples, I use *rp* standing for the *resumptive pronoun* instead of giving the proper gloss for the lexical item serving as the resumptive pronoun.

constituents having the same referent in the real world. In a dependency configuration, there are two positions which are interpreted as single entity: (i) the higher position and (ii) the lower position. The lower position in this dependency may be pronounced as a pronominal element as in the case of (1b) or may not be pronounced at all as in the case of (1a).

The analyses provided in the literature for a resumptive pronoun aim at determining (i) what the exact nature of the resumptive is, (ii) what types of clauses and which syntactic positions it can occur in, and (iii) how it is linked to its antecedent. With respect to (i), Sells (1984), McKee and McDaniel (2001) and McCloskey (2005) have argued that a resumptive is a pronominal element which is obligatorily bound by an operator, an overt or covert linguistic item which has been assumed to be present in the structure in order to license the overt/covert variables in the structure, especially in A'-dependencies. However, there is a conceptually different definition provided by Demirdache (1991) who holds that a resumptive element is itself an in-situ operator which moves at LF. With respect to (ii), definitions hold that a resumptive item appears in a position in which a gap would otherwise appear (McCloskey 1990). As for (iii), analyses proposed the pronominal dependencies in languages based on the theoretical construal of binding (Binding Theoretic approaches of GB era (Chomsky 1981, 1982, 1986a and 1986b) and movement based approaches of the Minimalist era (Kayne 2002, Boeckx 2003a, Hornstein 2006)).

The aim of the present work is to investigate the exact nature of resumption in Turkish and to provide an analysis of how anaphoric dependencies occur in the language. I also aim at investigating whether resumption has any explanatory power on various grammatical phenomena such as binding, control and null object licensing which have been assumed in the generative literature as resulting from different licensing mechanisms and in turn require different grammatical operations. That is to

say, I raise the question whether resumptive chains are able to account for the facts observed in other anaphoric dependencies. In this respect, this study aims at extending the applicational domain of resumption from relative clauses to anaphor licensing, control and null object licensing.

I basically argue that the above mentioned phenomena can be treated as having similar properties and can be accounted for by a more simple mechanism. In this respect, the study has a similar spirit with the recent work on the unification of these phenomena under *Move* proposed in Hornstein's works, and under *Chains as Projections* proposed in Boeckx's works. I claim that the similar syntactic behaviors of these different phenomena result from a different sense of locality, of the kind found in A'-chains rather than in A- chains. In other words, the subject language makes us reconsider the issue of locality in A- vs. A'- chains and takes us to a place where the locality based difficulties of different grammatical phenomena such as binding and control can easily be handled under A'- chains. I claim that this is the point where resumption comes into the play and offers a valid solution which compromises the different requirements of these different phenomena. Thus, what Turkish resumptives teach us is that languages employ optimally designed strategies by which various grammatical phenomena whose differences are only apparent receive a unified account.

The mechanism provided for the licensing of resumptives in the dissertation follows from a movement based model of the sort offered by Boeckx (2003a). Following Demirdache (1991), Pesetsky (1998), Aoun et. al. (2001), Boeckx (2003a) among others, I propose that resumption involves movement. The moving item is the empty operator which is merged with the resumptive upon first merge. Note that this movement is supported by the reconstruction data involving reconstruction into the islands in the sense of Salzmann (2006). According to the derivation offered in the

dissertation, the empty operator inside the V domain of the clause moves to the C domain and the resumptive strands.

Note that Boeckx's (2003a) stranding analysis of resumption takes resumptive as a D head and the Operator as its complement. The analysis here presents a more complex phrase structure for the resumptive and its antecedent given that the resumptive is itself a complex expression formed with a nominal base *kendi* and a minimal copy *'-sIn'* (3rd person singular possessive morpheme). I propose that *'-sIn'* heads the PossP and takes an NP complement which involves the base part and the antecedent, i.e. the empty operator. The empty operator moves to the C domain and the rest inside the PossP is pronounced as a resumptive pronoun. Note that this partition of the resumptive pronoun is the novelty of the analysis in this dissertation and contributes to the exact nature of resumption and resumptive pronouns.

Another contribution of the dissertation to the generative theory is related to the distinction between A- versus A'- domains. Languages have been argued to have both domains for different grammatical operations. While A- domain is the locus of movement to an A position, i.e. NP raising, passive movement, binding from an A position, i.e. Binding Theory principles, and control from an A- position, i.e. PRO Theorem, A'- domain is the locus of dependencies involving the operator-variable chains, topicalization, focalization, clefting, etc. The discussion of these issues throughout the dissertation reveals that A- domain in Turkish may be considered weak as independently proposed in Öztürk (2005). Instead, what Turkish instantiates is a rich A'- domain where different grammatical phenomena such as binding and control are licensed via operator-variable chains akin to resumption.

Related to the weakness of A- domain in the language, I propose that the recent developments in Minimalist syntax on *feature inheritance* offered by Chomsky (2005, 2007, 2008) seem to be superficial for Turkish. Turkish does not need to employ feature

inheritance as a result of which the Agree or Edge features of the phasal head C percolate down to T head in order to license subject case or EPP. The conceptual argument behind feature inheritance is argued by Chomsky (2005) to be the need for A- versus A'- distinction which is structurally available in Conceptual-Intentional level. Accordingly, the Agree feature of C corresponds to the A- domain where the subject case is licensed by T head via Agree and Edge feature corresponds to A'- domain where various A'- dependencies are licensed. I propose in the dissertation that feature inheritance model seems to be conceptually untenable for a language where A- versus A'- distinction seems to be unmotivated. In this respect, Phase Theory of Chomsky (2001) becomes redundant too for Turkish where the locality of operations follows a different path. Following Epstein and Seely (2002) and Boeckx and Grohmann (2007), I assume that each chain formation, i.e. operator-variable chain, or each instance of Merge can be sent to the interpretive component.

Another issue discussed in the dissertation is the classical Binding Theory and its implications in Turkish. I argue that the Binding Theory conditions fail to capture the whole set of cross-linguistic facts observed in languages regarding the distribution of anaphoric dependencies. Following Hornstein (2006), I argue that Binding Theory conditions are morpheme specific. Pronoun-anaphor complementarity observed in some languages such as English contributes to such morpheme specificity, i.e. Rule1 derives Form1, Rule2 derives Form2. Therefore, languages which do not have that sort of complementarity would be predicted to present contrary facts to Binding Conditions. I argue that this prediction is borne out in the case of Turkish which I argue to follow a tri-partite system rather than two regarding the Binding phenomenon. There is a third category exemplified by the complex pronominal expression *kendisi* which subsumes the functions of personal pronouns and anaphors and other functions which cannot be expressed by these two grammatical formatives.

1.2. The data

The data used in this study mainly comes from Turkish. Examples from other related languages have been used to introduce the relevant issues and to support the cross-linguistic variation on a particular point. The crucial point about the data is that some examples are subject to dialectal variation. The dialect split occurs especially for the data on islands and the use of forms which function as reflexive. This dialectal variation is noted as Dialect A and Dialect B when necessary. The grammaticality judgments are based on answers of 10 native speakers from different educational, regional and social backgrounds.

1.3. Resumptives in Turkish

Resumption in Turkish presents two important facts for the relevant literature. First of all, Turkish does not employ personal pronouns for resumption purposes. Instead, it makes use of the form *kendi-si*, the third person possessive inflected form of the lexical item *kendi* which has a number of grammatical functions. Another point is that resumptives in Turkish can only take human antecedents. Together with the fact that personal pronouns do not receive bound variable reading, this implies that resumptives might point out a structural distinction between various anaphoric dependencies in language at the very initial level.

The second fact is related to the function of the resumptive elements in language. While resumptive elements in Turkish save otherwise illicit derivations as in the case of many other languages such as English, they worsen the otherwise licit structures in some other cases. This implies that there are structural conditions on the licensing of the resumptive elements and corresponding empty categories and these conditions are different from standard locality conditions on movement. Moreover, resumptive elements in Turkish show no clear tendency as to whether they are allowed

inside islands. That is to say, while resumptive elements can occur inside islands in some cases, they cannot do so in some others. This implies that what is known to be an *island* or locality in broader sense for movement is observed in Turkish in a different way.

Distributionally speaking, resumptive elements in Turkish can occur in internal and second complement positions, embedded and highest subject positions, and adjunct positions. Among the others, the highest subject position seems to be crucial in that Turkish behaves differently from the two types of languages observed in Boeckx (2003a). The former type (Irish and Hebrew) disallows resumptive elements and the latter type (Vata) restricts them to the highest subject position. One position where resumptive elements are disallowed is possessor position, i.e. Spec-DP. While resumptive elements in complement and subject positions are optional, those in some postpositional complement positions and adjunct positions are obligatory. Consider (2a-b) where a resumptive pronoun and a corresponding gap are represented.

(2) b. [$_{\text{Rel. Cl.}}$ *ec*$_i$ gör-düğ-üm] adam$_i$
see-DIK-1sg man
"The man I saw"

a. [$_{\text{Rel. Cl.}}$ *kendisin*-i$_i$ gör-düğ-üm] adam$_i$
rp-ACC see-DIK-1sg man
"The man I saw (him)"

(2a-b) are relative clause structures in Turkish. In case (a) the gap occurs in the complement position of the verb. However, the corresponding position is filled by a resumptive pronoun in the (b) case. Syntactically speaking, resumptive elements in Turkish exhibit variable properties which have long been observed in the resumption literature. They cause Condition C violations, they can be coordinated with traces, and they are φ-defective. However, as in many languages resumptive elements in Turkish show semantic effects compared to the trace of the empty operator. For instance, they

show specificity effects when bound by quantificational antecedents, a fact which is not observed in operator traces.

1.4. Theoretical Framework: Minimalism

The theoretical framework assumed in this dissertation is the Principles and Parameters approach to language which assumes that the language faculty is innate and consists of a set of universal principles which are common to all human languages. The cross-linguistic variations are parameters (a set of options) with binary values. Linguistics investigates the linguistic forms with the aim of determining the nature of the principles and parameters as explanatory factors.

Minimalist program as introduced by Chomsky (1993, 1995, 2000, 2001, 2004, 2005, 2007, 2008) departs from the same understanding of the linguistic competence and has the same goals of linguistics stated in Principles and Parameters Theory and goes further by determining the shape of these principles by particularly focusing on notions such as economy, simplicity and naturalness. It aims at approaching "a perfect solution to minimal design specifications" (Chomsky 2000). Accordingly, the linguistic principles must be the simplest and the most natural in explaining the linguistic forms.

This simplicity is economy and it is assumed that the linguistic forms are derived through the most economical manners: more is worse, less is better. As a conceptual move for instance, the four components –Deep Structure, Surface Structure, Phonetic Form and Logical Form- of Government and Binding era have been restricted to two - Phonetic Form and Logical Form. The linguistic operations must be economical as well. Thus, as for movement, short steps are better than long steps and as for binding, short links are better than long links in a dependency.

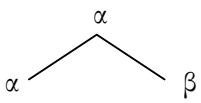
Within the Minimalist program, languages are assumed to be uniform in the absence of compelling evidence to the contrary. This is known as the Uniformity

Principle (Chomsky 2001). Faculty of human language consists of a lexicon where the lexical items are stored in their fully inflected forms and a computational system which derives the linguistic expressions. The linguistic expression which is derived in the narrow syntax is mapped into the interface levels, Phonological Form, i.e. PHON, and Logical Form, i.e. SEM, where the expression receives its pronunciation and interpretation respectively. This procedure is as follows: The Lexical Array makes a one time selection from the lexicon and sends the selected material to the syntactic component. The syntactic component maps the selected material to "derivation" then the derivation is mapped to interface levels PHON and SEM by the phonological component and the semantic component respectively. At the interface levels, the derivation of a linguistic expression "converges" if it involves only the elements interpretable by the interface levels, i.e. it must not have any uninterpretable features. In the converse case, the uninterpretable features are not eliminated and the derivation "crashes".

Government, the most important grammatical relation of the GB era, has been considered as applying in two ways: Spec-Head and Head-Complement. Minimalist Program reduces it to one grammatical relation, Spec-Head relation where the necessary features are checked.

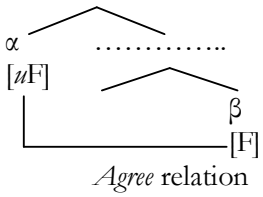
The operations *Merge*, *Agree* and *Move* are crucial for the derivation of linguistic expressions in Minimalist Program. *Merge* is assumed to be a syntactic relation which combines two elements to form a larger category. This presupposes the combinatory nature of linguistic objects and implies that, in the absence of it, a syntactic structure would not be possible. As shown in (3), *Merge* combines only two elements {α, β} at a time. Merge yields a binary structure and it constructs the sentences rather than representing them.

(3)



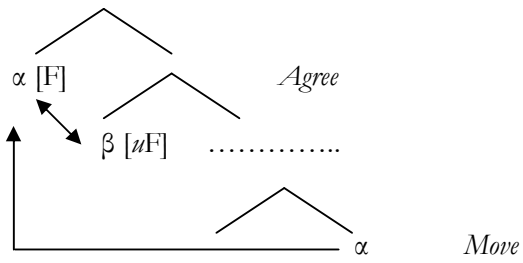
Another syntactic relation in Minimalist Program is *Agree*, an operation which assigns values to unvalued features for morphological reasons after the proper conditions have been established for feature matching. The uninterpretable feature [*u*F] of the functional head, labeled Probe is matched with the interpretable features [F] of the lexical item labeled Goal. This is given in (4).

(4)



Unlike the move-alpha consideration of movement in GB era, movement in Minimalist Program is not free, it applies only where it must and only for feature checking. The copy theory of movement according to which the moved elements leave copies rather than traces is assumed in Minimalist Program. The syntactic relation which moves the constituents into other positions for feature checking is labeled *Move*. *Move* creates displacement of an element by combining *Merge* and *Agree* (5). Later in the Minimalist era, Chomsky (2004) labeled *Move* as *Internal Merge* and *Merge* as *External Merge*. Boeckx (2008) attempts to unify these two by proposing that external merge is *projection*, and internal merge is *chain*, and that projections and chains are very similar objects.

(5)



In this dissertation, the *Move* operation will be taken as a probe-goal relation in the Minimalist understanding of syntactic relations (Chomsky 2001). We will raise the theoretical questions (i) whether "at a distance" property of probe-goal relation is an important factor for the mechanisms provided for the data due to the fact that resumption seems to involve a non-local relation between the probe and the goal, (ii) whether C heads are possible probes and resumptives possible goals due to the fact that the movement is motivated by feature checking between the probe and the goal, i.e. movement is triggered by the checking of uninterpretable features of the probe with the interpretable features of the goal, (iii) whether the strength of the features of the probe is crucial to assume a MOVE operation, i.e. if the probing features are strong, MOVE; if not, a pure AGREE operation between probe and goal, and (iv) whether the partial movement is different than the integral movement in that it does not obey subjacency and island phenomenon, unlike the integral movement which does, based on the fact that the sub-move or stranding character of the movement has implications on the violations of island constraints (cf. Boeckx 2003a). This raises a number of questions regarding the types of syntactic islands embedded in relative clauses (strong vs. weak islands).

Regarding Turkish relative clauses, I will raise the question whether the relativization suffixes in Turkish are really functional heads establishing grammatical relations akin to functional heads, i.e. C heads with φ-features as potential probes. Based on the distinction between subject vs. non-subject relativization strategies, I will discuss

whether different relativization strategies play a role in the island status of the clause. I will suggest that it is not the clause or a linguistic unit itself, but the grammatical operations and the nature of subject positioning inside the unit which determine the island status of a linguistic unit for extraction.

1.5. The Organization of the Dissertation

The dissertation is organized as seven chapters. Chapter 2 introduces the basic questions raised in the resumption literature and discusses the core properties of the issue in terms of both descriptive facts observed so far and the theoretical apparatus offered in order to explain the facts. Also, I introduce the core properties of Turkish resumption in this chapter.

In Chapter 3, I will discuss resumption and other related phenomena as they appear in Turkish. I will argue that resumptive pronouns in Turkish behave as variables in a number of respects. Morphologically, I will offer a partition as a result of which a resumptive element is analyzed as involving a nominal base part, *kendi* and minimal copy of its antecedent part, '*-sIn*'. The syntactic implications and predictions of this partition lead us to assume "Big DP Approach" to resumption developed by Boeckx (2003a), where the "Big DP" is translated as PossP headed by *'-sIn*'. I argue that the licensing mechanism offered in this chapter explains (i) the core properties of resumption, i.e. optionality of resumptive elements, saving device characteristics of resumptive elements, and island insensitivity problem, and (ii) distribution of other linguistic phenomena such as binding, control and null object licensing.

Chapter 4 is devoted to a discussion of anaphoric dependencies in Turkish. I discuss the distribution of the forms *kendi*, *kendisi* and personal pronouns, and argue that Binding Theory conditions are problematic in a number of respects. I argue that distribution of anaphoric dependencies in Turkish is different from that of English and

other European languages and the different nature of anaphoric dependencies speaks for an approach which is based on A'- chains rather than A- chains. I argue that Turkish seems to employ a tri-partite distinction –personal pronouns, anaphors, and *(kendi)si-* instead of pronoun vs. anaphor complementarity which has been observed in languages such as English.

Chapter 5 discusses the syntactic and semantic properties of overt and covert anaphoric expressions, i.e. *kendi*, *kendisi*, personal pronouns, null objects, and PRO. I argue that the resumptive chain offered in Chapter 3 can explain the various properties of these distinct phenomena. I propose that resumptive chains where the "bindee" forms a unit with its syntactic "binder" which moves to the left periphery and the "bindee" strands, are applicable to the binding, control, and null object licensing. Various properties of this machinery are discussed in this chapter. What is also questioned in this chapter is the nature of the minimal domain in Turkish. I argue that the possibility of having long distance binding, control, null object licensing, and NP movement, i.e. scrambling speak for the weakness of A- chain locality in Turkish. This fact is taken as indicating the possibility of having no minimal domain for A- chains in the language which restricts the movement only to the local instances. What instead languages might do is to employ A'- dependencies of the sort discussed throughout the dissertation where locality is understood not as the intrinsic property of a linguistic unit such as a type of clause, but the grammatical operations occurred inside the unit and whether the moved item is overt or covert.

In Chapter 6 I discuss the implications of the licensing mechanisms offered in the previous chapters on the clausal architecture of Turkish. Basically, I argue that Turkish clauses have a rich left periphery where the functional projections of the C domain, i.e. TopP and FinP, play a role in syntactic licensing in the T and V domains. Before doing so, I discuss the issues such as finiteness, and the head of a clause in

Turkish and propose that it is the Fin head which licenses the subject and clauses have CP domain in Turkish. The dissertation argues that the feature inheritance model of Chomsky (2005) seems to be superficial for Turkish, a language with a weak A- domain. Functional features in the C domain of Turkish, instead, are associated with separate functional heads which have their own maximal projections in the sense of Rizzi (1997).

In the conclusion chapter, I discuss the implications of the proposals I made throughout the dissertation.

CHAPTER II

RESUMPTION

This chapter presents a theoretical description of resumption and discusses the core properties of the issue and related issues by providing data from various languages. Resumption is a form of dependency between two positions in a configuration. This configuration involves a higher XP antecedent outside of and a lower YP element inside of the TP as schematized in (1).

(1) XP_i $[_{TP}$ ……. YP_i …….]

The distance between the higher position and the lower position marks the dependency non-anaphoric since the anaphoric dependencies are supposed to be within a single TP. This gives rise to a pronominal dependency option which requires a certain distance between the higher and the lower positions. However, the configuration in (1) can also be considered an operator-variable structure involving a variable dependency between the two positions. Moreover, within the movement theories, the configuration in (1) is assumed to involve movement where the moved element forms a dependency with the position it leaves. This position is assumed to host a phonologically null copy of the moved element (Chomsky 1995, Hornstein 2006). In resumptive structures, a phonologically overt element appears in the position of this null copy and forms a dependency with the element assumed to move (Aoun et.al. 2001). In other words, resumptives appear in a position where a gap is expected to appear.

With respect to the morphological shape of the resumptive element, McKee and McDaniel (2001:114), McCloskey (2005), Demirdache (1991) have argued that resumptives are pronominal elements which seem to occur in a variable position, i.e. the

position where gaps normally occur, bound by an operator. McCloskey (2005) further pointed out that no language has a special form for the resumptive function.[2]

Three main properties in terms of which resumptives have been investigated in the literature are: (i) the distribution of resumptives and resumptive-like elements such as epithets[3] and logophors[4], which constitute the core data of these studies, (ii) the syntactic nature of the resumptives, that is whether they are of pronominal or bound variable category, (iii) the syntactic derivation of the resumptives. With respect to (i), different structures such as relative clauses, topicalization, left dislocation and constituent questions, and different positions such as internal complement, second complement, subject positions in structures in which resumptives occur have been

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[2] Sells (1984) notes that in English regular personal pronouns are used as resumptives, i.e. the same pronoun is used for two different functions. The same fact is observed in Semitic languages and Irish (Shlonsky 1992 and Mc Closkey 1990, 2002 respectively). This is the general tendency among the languages which make use of a productive resumption strategy. However, in some languages such as Turkish regular pronouns can not be used resumptively, instead a special pronominal item is used. It has also been noted in the literature that the linguistic expressions which function as resumptive are of many types including overt or covert pronouns, tonic or weak pronouns, clitics and epithets.

With respect to the internal make-up of a resumptive element, i.e. its morpho-syntactic structure, in some languages, resumptives are fused with relative pronouns, complementizers or noun classifiers. Henderson (2006) notes that resumptives seem to be fused with noun classifiers in Bantu languages. Resumptives in Zurich German and Polish have been shown to be fused with complementizers or relative pronouns as noted in Salzmann (2006) and Szczegielniak (2005) respectively. Szczegielniak (2005) points out that there are two types of resumptives in Polish, (i) adjacent resumptives and (ii) embedded resumptives. Adjacent resumptives are truncated forms of the relative operator with the complementizer like element *co*, a fact which he takes to suggest operator raising in relative clauses. Moreover, the weak versus strong (tonic) pronoun distinction has also been shown to be significant for the licensing of resumptives in languages such as Hebrew and Lebanese Arabic (Demirdache 1991, Aoun et. al. 2001 respectively). Aoun et.al. (2001:375) argue that in Lebanese Arabic when the resumptive element is a tonic pronoun, it cannot take a QP as its antecedent. They account for the tonic pronouns via a movement dependency. Moreover, Aoun et.al. (2001) and Ouhalla (2001) have proposed that resumptives can also be cliticized onto the verbal or prepositional heads in Semitic languages. What is shown by these studies is that the internal structure of resumptives is significant for their syntactic licensing.

[3] Epithets have also been investigated in the literature with respect to their resumptive functions. Aoun and Choueiri (2000) note that epithets in Lebanese Arabic and Moroccan Arabic can function as resumptives in definite relatives and in clitic left dislocation structures. Therefore, the distribution of epithets and the interactions between the epithets and resumptives have been shown to be important for the syntactic status of resumptives in language.

[4] With respect to the general theory of anaphora, languages under investigation have also been argued to have constructions which are formed in the same way as resumptives, i.e. an A'- dependency between a pronominal element and an NP, but have a pronominal dependency different from the one involved in resumptives and epithets. It is the pronominal dependency formed via a logophoric element. Logophors have been investigated in the generative literature (Sells 1987 for English, Safir 2004, Adesola 2004 for Yoruba, Oshima 2004 for Japanese) and a number of proposals have been made with respect to their semantic properties and syntactic licensing. Safir (2004) defines a logophor as a pronominal element which has a sort of *de se* reading, i.e. the awareness of self reference/referring to the speaker.

investigated. With respect to (ii), the investigations focused on whether resumptives exhibit pronominal or variable behavior based on the syntactic and semantic properties they show in particular structures. With respect to (iii), studies have focused on alternative derivational processes for resumptive elements and investigated whether resumptives are *base-generated pronominals* (Chomsky 1982, Rizzi 1990), *last resort* expressions to save the violations of some syntactic principles[5] (Shlonsky 1992, Safir 1996, McDaniel and McCowart 1999), or *derivational outputs* such as phonetic spell-outs of the traces/copies (Pesetsky 1998, Grohman 2003), stranded materials under a partial movement (Boeckx 2003a) or syntactic variables (McCloskey 1990, Bondaruk 1995). Note that these three main points are closely related to each other in that the answers to one constitute evidence for the answers for the other two. That is to say, the distributional properties of resumptives provide arguments for their syntactic and semantic nature and for their syntactic derivation as well. Further, the syntactic and semantic nature of resumptives gives clues for the derivational processes they are involved in.[6]

2.1. Some Descriptive Facts about Resumptives

In this section, I provide descriptive facts about resumptives which have been observed in the generative literature. In what types of clauses/A'- dependencies do resumptives

[5] Actually, the saving device characteristics of resumptive pronouns has been replaced by a distinction between intrusive pronouns and resumptive pronouns, originally offered by Sells (1984) when cross-linguistic data have been investigated. According to Sells (1984), intrusive pronouns appear in a position of an illicit trace, i.e. act as a saving device. Resumptive pronouns, on the other hand, can be bound by an operator in the absence of a condition which bans traces.

[6] Not all studies have focused on the syntax and semantics of resumption and resumptive pronouns. The issue has also been investigated for their discourse properties. See Prince (1990) for an investigation of the discourse functions of relative clauses containing a resumptive in Yiddish and English. Moreover, by focusing on the use of resumptive pronouns, Prince (1995) points out that syntactic form and discourse function are not predictable from one another. The correlations between them are not commonsensical and must be determined on a language specific basis.

Moreover, there are experimental studies which focus on the use of resumptives compared to the corresponding gaps in different languages. See Alexopoulou and Keller (2003) and Gervain (2003). A recent study by Freidmann et. al. (2009) has concluded that resumptive pronouns do not improve comprehension of the object relative clauses.

occur? In what syntactic positions are resumptives found? What are the significant properties of resumptives in language? What makes resumptives crucial for the syntactic theory? These are some of the questions raised in the literature for the investigation of resumption and resumptive pronouns.

2.1.1. Constructions in which Resumptives Occur

As I pointed out above, resumptives appear in the position of a gap in dependency constructions. These constructions are labeled A'- dependencies (Cinque 1990) and can be listed as topicalization structures, constituent questions, cleft constructions, relative clauses, comparative clauses and left dislocation structures. The distribution of resumptives in these different constructions exhibits cross-linguistic variation. That is to say, while some languages make use of resumptives in the position of corresponding gaps in one or more than one type of A'- dependencies, other languages restrict resumptives into relative clauses. Hebrew is an example to the former while Turkish exemplifies the latter. Below I illustrate the different constructions in which resumptives occur.

(2) a. *Tongan topicalizations*
ko hono$_i$ kolo na'a mau taki taha$_i$ 'alu ki *ai$_i$*
PRT 3-SNG village PAST we each one go to it
'Our village, we each went to it'
Hendrick (2005:111) Example (8)

b. *Irish constituent questions*
cén t-oifigeach ar shil tú go mbeadh *sé* i láthair
what officier COMP$_{pro}$ thought you COMP would-be he present
'Which officer did you think would be present?'
McCloskey (1990:238) Example (98b)

c. *Hebrew Relative clauses*
ha-?iş şe- xaşavt şe- *hu* melamed ?anglit
the man that-(you.F) thought that he teaches English
"The man that you thought teaches English"
Shlonsky (1992:444) Example (2c)

d. *Irish Clefts*
Siobhan a bhfuil buaite aici *pro*.
Siobhan $COMP_{pro}$ is won by- 3SNG-FEM
'It is Siobhan that has won.'
Lit. 'It is Siobhan that has been won by her.'
McCloskey (1990:239) Example (99c)

(2a-d) illustrate the different constructions in which resumptives occur. (2a) illustrates a topicalization structure from Tongan where the topicalized material *hono kolo* (our village) is resumed by the resumptive element *ai* (it). In (2b) the wh-constituent *cén t-oifigeach* (what officer) is co-indexed with a pronoun *sé* (he) which occurs in the subject position. (2c) illustrates a relative clause from Hebrew where the head noun *ha-ʔiş* (the man) is resumed by the resumptive pronoun *hu* (he). Finally, in (2d) the clefted constituent *Siobhan* is co-indexed with *pro* (3SNG-FEM) inside the clause.

Languages vary with respect to the construction types in which they employ resumptives. Irish, for example, allows resumptives in restrictive and non-restrictive relative clauses, constituent questions, clefts, comparative clauses, "tough" movement constructions, infinitival relatives and purpose clauses. Hebrew, on the other hand, employs resumptives only in relative clauses and constituent questions. There are also languages such as Turkish which restrict resumptives to relative clauses. These facts are given in Table I below.

Table 1. Different Clause Types Hosting Resumptives

Language	*RC*	*TOP*	*CQ*	*LD*
Irish	+	-	+	
Hebrew	+	-	+[7]	
Greek	+	-	+	
Polish	+	+	+	
Turkish	+	-	-	-
Swedish	+			
Chinese	+			
Palestinian Arabic	+			
Vata	+			
Tongan	+	+	-	
Lebanese Arabic	+			+

RC: Relative Clause, *TOP*: Topicalization, *CQ*: Constituent questions, *LD*: Left Dislocation

2.1.2. Syntactic Positions of Resumptives in Relative Clauses

In the previous section, we have seen in what types of constructions resumptives occur in the position of a corresponding gap. In this section, we will describe the syntactic positions in which resumptives occur in relative clauses. The syntactic positions we survey are direct and indirect object positions, pre/postpositional object positions, embedded and highest subject positions, NP-internal and possessor positions. Examples in (3a-f) below illustrate these positions.

(3) a. *Direct object position Irish*
ghirseach ar ghoid na siogai *i*
the girl $COMP_{pro}$ stole the fairies her
'The girl whom the fairies stole'
McCloskey (1990:240) Example (104a)

b. *Indirect object position Polish*
Ta kobieta, co *jej* dalem kwiaty, to moja nauczycielka
this woman what her I.gave flowers it my teacher
"The woman whom I gave flowers is my teacher"
Bondaruk (1995:36) Example (19)

[7] Hebrew is subject to dialectal variation in this sense (Sharvit 1999:591), i.e. some dialects do not allow resumptives in constituent questions. Actually, there are studies which have observed that resumptives are excluded from constituent questions cross-linguistically. Alexopoulou and Keller (2003:15) point out that English and Greek do not allow resumptives in constituent questions. However, Sells (1984) points out that D-linking improves the acceptability of resumptives in constituent questions.

c. *Pre/postpositional object position Hebrew*
ha-ʔiş şe- xaşavti ʔal- *av*
the man that-(I) thought about (him)
"The man that I thought about (him)"
Shlonsky (1992:445) Example (4)

d. *Embedded subject position Palestinian Arabic*
l-bint ʔilli fakkarti ʔinno *hiy* raayha albeet
the-girl that thought-2S.FEM that she going to-the-house
'the girl that you thought that (she) is going home'
Shlonsky (1992:445) Example (8)

e. *Highest subject position Turkish*
[*Kendisi* dün akşam gel-en] *adam*
rp last.night come-REL man
"The man who (he) came last night"

f. *Possessor position or NP internal position Greek*
o fititis pu danistika to aftokinio *tu* ine o Yanis
the student that barrowed-1s the car his-GEN is the Yanis
"The student whose car I barrowed is Yanis."
Alexopoulou (2006:63) Example (11b)

The examples in (3a-f) show the distribution of resumptives in different syntactic positions. As in the case of the distribution of resumptives in clause types, syntactic positions in relative clauses exhibit cross-linguistic variation in a number of respects. First, languages vary with respect to the possibility of having a resumptive in that (i) they allow resumptives in all the positions above (Turkish), (ii) they allow all the positions but the highest subject position (Irish, Polish, Hebrew, Palestinian Arabic), (iii) they allow resumptives only in some positions (Greek, Chinese). Second, languages vary with respect to the licensing of resumptives in that (i) resumptives are optional, i.e. they vary with corresponding gaps, (ii) resumptives are obligatory, i.e. they cannot vary with the corresponding gaps, and (iii) resumptives are banned, i.e. they cannot be used at all. The permutation of the first and the second points above gives us a complex picture where a given language employs optional resumptives in a given syntactic position such as the

direct object position while it employs obligatory resumptives in another syntactic position such as the prepositional object position. Table 2 lists these observations.

Table 2. Resumptives in Syntactic Positions

Language	*DO*			*IO*			*PO*			*HS*			*ES*			*POSS*		
	()	*()	*	()	*()	*	()	*()	*	()	*()	*	()	*()	*	()	*()	*
Irish	+											+	+					
Hebrew	+			+				+				+	+				+	
Greek																		
Polish																		
Turkish	+			+			+	+		+			+					+
Swedish																		
Chinese																		
P.Arabic		+						+				+		+			+	
Vata			+			+			+	+			+			+		

DO: Direct object, *IO*: Indirect object, *PO*: Pre/postpositional object, *HS*: Highest subject, *ES*: Embedded subject, *POSS*: Possessor or NP internal position
(): optional, *(): obligatory, *: banned

Let us take two languages from Table 2, Vata and Turkish, and see how languages vary with respect to the use of resumptives. First, while Vata bans the resumptives in object positions (DO, IO and PO), Turkish allows them. Second, while Vata allows resumptives in possessor position, Turkish bans them. Third, both languages allow resumptives in subject positions (ES and HS).

2.1.3. Other Issues

Besides the distributional properties of resumptives, there are other issues which have been discussed in the literature in relation to the resumption. These issues are crucial in that the properties of resumptives have implications for the basic tenets of Principles and Parameters approach such as locality, the exact nature of movement and unbounded dependencies. In this section, I will only introduce the relevant issues without referring to the theoretical implications which I will discuss in the following sections. However, one immediate remark is given in advance: The most significant property of resumption is its Janus-like nature. This is obvious in two respects. First,

resumptives exhibit properties similar to those of the structures which involve displacement on the one hand and properties of the structures which do not involve displacement on the other hand. Second, resumptive elements exhibit properties similar to those of regular pronominals on the one hand and also properties similar to those of syntactic variables on the other hand. In the following, I will discuss these points in detail.

2.1.3.1. Locality and Movement

The locality related property of resumption comes with its immunity from island constraints on displacement. In other words, while displacement structures obey island constraints, resumptives do not. This is exemplified in (4a-d).

(4) a. *There are *students*$_i$ who you can never know [what *ec* are going to do].

b. There are *students*$_i$ who you can never know [what *they*$_i$ are going to do].

c. **ha-ʔiʃ* ʃe-Ruti ve- *ec* ʔohavim kesef
the-man that-Ruti and- love money
"The man that Ruti and love money"
Shlonsky (1992:450) Example (15b)

d. *ha-ʔiʃ* ʃe-Ruti ve -*hu* ʔohavim kesef
the-man that-Ruti and-him love money
"The man that Ruti and him love money"
Shlonsky (1992:450) Example (15a)

(4a-b) are from English. In (4a) the empty position inside the most deeply embedded clause is interpreted with the displaced constituent *students*. The most deeply embedded clause is labeled wh-island given that the extraction of a constituent out of this domain renders the structure ungrammatical. However, in (4b) the resumptive pronoun *they* in the same position does not yield ungrammaticality. Likewise, the displaced constituent *ha-ʔiʃ* (the man) is interpreted with the empty position inside the embedded clause in (4c). The ungrammaticality of this structure is referred as a violation of Coordinate

Structure Constraint which blocks the movement of a conjunct out of the coordinate structure. However, in (4d) the resumptive pronoun *hu* (he) does not have the same effect. This property of resumptives is referred as "immunity from island constraints" and indicates that they do not involve movement.

However, resumptives show similar properties with displacement structures too. I provide two illustrative cases to show this. The first case shows the possibility of resumptives to coordinate with gaps (an indication of displacement), and the second one shows that resumption requires a displaced constituent to reconstruct back to its original position. These are exemplified in (5a-b) respectively.

(5) a. *ha?iʂ* 0_i Rina [roca *?oto*$_i$] ve [ʔohevet *ec*$_i$] yoter mikulam
the man OP Rina wants him and loves more than anyone
"The man that Rina wants and loves more than anyone."
Demirdache (1991:90) Example (35b)

b. ʕ*aleemit karim* fakkarto ʕənno ɣabbarna kəll ʕəsteez ʕənno leezim
grade.SF Karim thought.2P that told.1P each teacher that should
titɣayyar
change.3SF
"Karim's grade, you thought that we told each teacher that it should be changed"
Aoun et. al. (2001:383) Example (31a)

(5a) is from Hebrew and (5b) from Lebanese Arabic. In (5a) the first conjunct contains a resumptive element and the second one contains a gap which is interpreted with the displaced constituent *ha-?iʂ* (the man). Note that the resumptive and the gap are both coreferential with the same entity, a fact showing that resumptives show similar behavior with gaps involving displacement.

(5b) shows another property of resumptives which is shared by displaced constituents, i.e. reconstruction. (5b) is ambiguous between the non-distributive reading, "there is one grade that Karim has and the grade should be changed by each teacher" and distributive reading, "there are different grades of Karim that should be changed by

each teacher". In order for the distributive reading to be obtained in (5b), the displaced constituent ʕ*aleemit karim* (Karim's grade) has to be interpreted in a position inside the clause. Given that this position is filled by a resumptive, we can conclude that resumption exhibits similar properties with displacement.

2.1.3.2. Resumptives: Pronominal or Variable

Another aspect in which resumptives show a Janus-like property is related to the exact nature of resumptives in that they show pronominal behavior on the one hand and variable properties on the other.

Here is the picture: In the previous section we have noticed that resumption shows similar properties with displacement structures. This implies that resumptive elements show similar properties with the outputs of displacement operations, i.e., gaps. Gaps are defined as syntactic variables in the literature and show Condition C effects, license parasitic gaps, etc. If resumptive elements show the same range of properties, one can easily conclude that they are syntactic variables too. Indeed, this is what we observe in many languages.

However, gaps are assumed to have no semantic content which means that (i) they do not contribute to the semantics of the structure at SEM, and (ii) they are not part of the numeration. If resumptives have semantic content and contribute to the meaning of the structure they are involved in, one can easily conclude that they are not syntactic variables but are of some other kind of grammatical formative, say pronominal. Indeed, this is the case in many languages which employ resumptives. That is to say, compared with the corresponding gaps, resumptives contribute to the meaning of the structure at SEM via the "specificity effects" they carry. I will discuss these issues in the following sections.

2.2. Theoretical Description of Resumptives

In this section, I provide a discussion on the theoretical implications of the facts observed in the literature with respect to resumption and resumptive pronouns. I will focus on three main points: (i) the distribution of resumptives, (ii) the syntactic and semantic nature of resumptives, and (iii) licensing of resumptives.

2.2.1. The Distribution of Resumptives

As I have pointed out in section 2.1.1, resumptives occur in different types of constructions. In the Principles and Parameters literature, this property of resumptives has been observed as indicating that the resumptive can be co-indexed with (i) the head noun in relative clauses, (ii) the moved wh-constituent in constituent questions (Semitic languages, Aoun et. al. 2001 and Irish, McCloskey 2005), (iii) the clefted constituent in cleft structures (Irish, McCloskey 1990), and (iii) the topicalized constituent in topicalization structures (Tongan, Hendrick 2005) and (Polish, Szczegielniak 2005). What is common in these structures is that they exhibit movement properties in that a gap position is available in the movement site, which is filled by a resumptive element interpreted with the moved constituent. This implies that the dependency in which the resumptive element is involved is not of anaphoric or pronominal type, but of operator-variable type.

Despite the availability of resumptives in the gap position of the above stated structures, they mainly occur in relative clauses. Moreover, the focus language in this study, Turkish, does not seem to make use of resumptives in the other types. Hence, we will focus on the relative clause structures in this study.

2.2.1.1. Relative Clauses

With respect to the derivation of relative clause constructions, four different accounts have been proposed in the literature: (i) Operator movement analysis proposed by Chomsky (1977), (ii) Operator-variable analysis proposed by Aoun and Li (1993), (iii) Head movement analysis proposed by Kayne (1994), and (iv) Matching analysis proposed by Sauerland (1999). These analyses are shown in (6-9) below.

(6) The girl [$_{CP}$ *OP* that [$_{TP}$ I love ~~OP~~]]
Operator movement (Chomsky, 1977)

(7) [$_{DP}$ The [$_{CP}$ *girl* that I love ~~girl~~]]
Head raising analysis (Kayne, 1994)

(8) The girl [$_{CP}$ *OP* that [$_{TP}$ I love *variable*]]
Operator-variable analysis (Aoun and Li, 1993)

(9) The girl [[*OP*/that ~~girl~~] that I love __]
Matching analysis (Sauerland, 1999)

What is common in all these different proposals is that the structures involve a dependency between the two positions. They differ from each other in two respects: (i) the way the dependency is formed, i.e. via movement (operator movement or head raising) or via direct binding (operator-variable analysis), and (ii) the nature of the element which undergoes movement (the empty operator or the head noun). With respect to the implications for resumptive structures, all different configurations make similar chains since the lower end of this dependency is the position where resumptives occur.

2.2.1.2. Obligatory vs. Optional Resumptives

Resumptives have been under discussion with respect to the positions (i) where they occur obligatorily, that is a corresponding gap is ruled out, (ii) where they occur optionally, that is either the gap or a resumptive element may occur in the gap position,

and (iii) where they are banned, that is only a gap is allowed in different structures involving a gap in the lower end of the dependency. Examples in (10a-c) are from Venetian (Bianchi 1998) and show these three cases respectively:

(10) a. Questo ze un argomento che no voio parlarghe *ec / ne*
this is a topic that (I) not want-to-talk-him about *-it*
Bianchi (1998:80) example (2)

b. Me fradeo Giorgio, che ti *o / ec* conossi anche ti
my brother Giorgio, that you him know you too
Bianchi (1998:80) example (1)

c. El fio che ti *ec* / **o* ga conossuo ieri el ze meo fradeo
the boy that you have met yesterday he is my brother
Bianchi (1998:81) example (8b)

In (10a-c) three possibilities are listed with respect to the occurrence of a resumptive element in language. In (10a) the resumptive element is obligatory, in (10b) it is optional and in (10c) it is ruled out.

Many languages have been shown to have an optional resumptive element in direct complement and second complement positions[8] including Hebrew (Demirdache 1991), Irish (Mc Closkey 1990), Lebanese Arabic (Aoun et. al. 2001), Polish (Bondaruk 1995). Example in (11a) shows the resumptive element in direct object/internal complement position and (11b) shows the resumptive in indirect object/second complement position of the verb.

(11) a. An ghirseach ar ghoid na siogai *i*
the girl C stole the fairies *her*
McCloskey 2005:2 Example (5)

[8] Greek and Polish have a different pattern with respect to second complement position (Alexopoulou 2006:63 and Bondaruk 1995:36 respectively). In Greek when the relativization site is an indirect object position, only the resumptive pronoun is allowed and the gap is ruled out as (i) below indicates. Moreover, resumptives in Chinese occur in the second complement position while they cannot do so in the internal complement position (Yuan and Zhao 2005).

(i) tu pedi pu **ec* / *tu* danises lefta ine o yos mu
the-NEUT kid that lent-2s money is the-NOM son-NOM my
"The kid you lent money to is my son."
Alexopoulou (2006:63) Example (11a)

b. Ta kobieta, co *jej* dalem kwiaty, to moja nauczycielka
this woman what her I.gave flowers it my teacher
"The woman whom I gave flowers is my teacher"
Bondaruk (1995:36) Example (19)

(11a) is from Irish and a resumptive pronoun occurs in the internal complement position of the verb. (11b) is a Polish relative clause where the resumptive element occurs in the second complement position.

Embedded subject position is another position where resumptives may occur freely with gaps as illustrated in (12) from Hebrew.

(12) ha-ʔiş şe- xaşavt şe- *(hu)* melamed ʔanglit
the man that-(you.F) thought that (he) teaches English
"The man that you thought teaches English"
Shlonsky (1992:444) Example (2)

In (12) the embedded subject position is filled with a resumptive element and this resumptive optionally alternates with a gap. Another language which allows optional resumptives in this position is Irish (McCloskey 1990). Lebanese Arabic, on the other hand, does not allow resumptives in this position.

The positions in which resumptives have been observed to occur obligatorily are (i) the possessor or an NP internal position (Greek and Hebrew) and (ii) complement of a pre/postposition (Greek, Palestinian Arabic, Turkish and Zurich German). In possessor or NP internal position, resumptive pronouns occur obligatorily. Typical examples for this fact from Greek and Hebrew relative clauses are given in (13a) and (13b) respectively:

(13) a. o fititis pu danistika to aftokinio **ec/tu* ine o Yanis
the student that barrowed-1s the car his-GEN is the Yanis
"The student whose car I barrowed is Yanis."
Alexopoulou (2006:63) Example (11b)

b. ha-ʔiş şe- raʔiti ʔet ʔişt- *(o)
the man that-(I) saw ACC wife-(his)
"The man whose wife I saw"

Shlonsky (1992:445) Example (5)

Complement of prepositions is where resumptive elements obligatorily occur in many languages including Zurich German. Salzmann (2006) citing Riemsdijk (1989) has shown that in Zurich German the resumptive element obligatorily occurs as the complement of a preposition. The obligatoriness of the resumptive element as complement of preposition has also been noted for Hebrew and Palestinian Arabic by Shlonsky (1992) and Demirdache (1991) respectively. An illustrative example from Hebrew is given in (14) below:

(14) ha-ʔiş şe- xaşavti ʔal- *(av)
the man that-(I) thought about (him)
"The man that I thought about (him)"

Shlonsky (1992:445) Example (4)

In (14) the resumptive element occurs in the complement position of the preposition *ʔal* (about) and can not alternate with a gap in the same position.

One position where resumptives have been observed to be banned from is the highest subject position. McCloskey (1990) has shown that Irish does not allow resumptive pronouns to appear in the highest subject position. This restriction has also been recorded for Hebrew and Palestinian Arabic, Lebanese Arabic, Polish and Chinese by Shlonsky (1992), Aoun et. al. (2001), Lavine (2003) and Yuan and Zhao (2005) respectively. The ban on the highest subject position is illustrated by the example (15) below from Polish:

(15) Ten czlowiek, co *(*on)* siedzi w wiezieniu byl kieyds
the man:NOM-MASC-SG COMP is.sitting in prison was at one time
moim sasiadem
my neighbor
"The man who is in prison used to be my neighbor"
Bondaruk (1995:37) Example (22)

McCloskey (1990) introduces the "Highest Subject Restriction" (HSR) which excludes resumptives from the highest subject position for Irish. (16) below formulates this restriction:

(16) *The Highest Subject Restriction*
A Pronoun must be A'- free in the least complete functional complex containing the pronoun and a subject distinct from the pronoun.
McCloskey (1990:215) Example (44)

Note that the HSR can be taken as syntactic evidence for the pronominal nature of resumptives since they can not be close to their antecedents as in the case of pronominal elements. Thus, I postpone the discussion of HSR to the later sections. However, one point is made in advance. Suner (1998:350) notes that Yiddish and Spanish present counter examples to this principle. Boeckx (2003a) questions the cross-linguistic validity of HSR and Willis (2000) presents evidence from Welsh relative clauses which involve resumptives in highest subject position by providing an argument for the impossibility of positing a complete functional complex which excludes the antecedent of the resumptive pronoun.

The distribution of resumptives has also been shown to be predicted by the relative clause types in some languages including Greek, Italian dialects and Lebanese Arabic. For Greek, Alexopoulou (2006:57-58) notes that the obligatory vs. optional use of resumptives is predicted by (i) the operator type (overt vs. covert operators), and (ii) the relative clause type (restrictive vs. non-restrictive relatives and free relatives). For the first case, she notes that in null operator relatives introduced by the complementizer *pu*

and free relatives introduced by *apios*, resumptives are obligatory in non-argument positions. (17a-b) shows this case:

(17) a. tu pedi *pu* **ec* / *tu* danises lefta ine o yos mu
the-NEUT kid that lent-2s money is the-NOM son-NOM my
"The kid you lent money to is my son."

b. irthe *opios* *tu *ec* / *tu* danises lefta
came-3s who-REL-NOM him-GEN lent-2s money
"Whoever you lent money to came"
Alexopoulou (2006:63) Examples (11a) and (12a) respectively

Alexopoulou notes that in a null operator relative clause introduced by the complementizer *pu* in an example such as (17a), the resumptive element is obligatory in that the corresponding gap is ruled out. Likewise in (17b), the free relative clause introduced by the complementizer *apios* has an obligatory resumptive element. Lebanese Arabic is another language where the distribution of resumptives has been shown to be subject to definite vs. indefinite relative clause type. Aoun and Choueiri (1997) have noted that resumptive pronouns can occur in both types of relative clauses in Lebanese Arabic but can show reconstruction effects only when they are in an island context in a definite relative clause. Indefinite relative clauses, on the other hand, can not show reconstruction effects. This is illustrated in (18) below:

(18) şəft [Ssuura taba$^{\text{ʕ}}$ ʔəbn-a$_i$]$_i$ *yalli* [kəll mwazzafe]$_i$ ʔaalit ʔənno badda
saw.1s [the picture of son her] that [every employee.f] said 3sf that want.3sf
t$^{\text{ʕ}}$allәʔ-a bi-maktab-a
hang.3sf.it in.office.her
"I saw the picture of her son that every employee said she wants to hang in her office"
Aoun and Choueiri (1997:7) Example (19a)

In (18) the pronoun contained in the definite DP *the picture of her* part can be bound from the relative clause by the QP *every employee* and this bound reading can be taken to

indicate that the pronoun within the definite DP can be interpreted from the position of resumptive pronoun, a position c-commanded by the QP *every employee*.

Moreover, Bianchi (1998) observes for some Italian dialects that optional resumptives can only occur in non-restrictive relatives, they are excluded from restrictive and maximalizing relatives. This is illustrated in the examples (19a-b) below:

(19) a. Questo ze un argomento che no voio parlarghe **ec / ne*
this is a topic that (I) not want-to-talk-to-him about-*it*
Bianchi (1998:80) Example (2)

b. Me fradeo Giorgio, che ti *o / ec* conossi anche ti,..
my brother Giorgio, that you him know you too
Bianchi (1998:80) Example (1)

(19a) is a restrictive relative clause and the resumptive pronoun occurs obligatorily. In (19b), on the other hand, resumptive element is optional in a non-restrictive relative clause. Note that there are also some languages which do not induce such restrictions on the distribution of resumptive pronouns. Suner (1998) and Bianchi (1998) note that Spanish, Hebrew and Brazilian Portuguese allow resumptives in both restrictive and non-restrictive relative clauses.

Moreover, there are languages where the distributional properties of resumptives and corresponding gaps are sensitive to the target of relativization. As noted in Besnier (2000), Tuvaluan is one of these languages where the resumptive strategy is used for the relativization of transitive subjects, gap strategy is used for the relativization of intransitive subjects and the internal complements of the transitive verbs. Resumptives are obligatory if the target of the relativization is an oblique argument of the verb.

Note that the distributional properties of resumptives have implications for their (i) syntactic nature, and (ii) the derivational processes they are involved in. With respect to (i), the fact that resumptives in many languages are banned from the highest subject position argues in favor of their treatment as "pronominal". That is to say, resumptive

element as a pronoun can not be "too close" to its antecedent, exhibiting an anti-locality effect, hence obeying the A'- Disjointness requirement given in (20).

(20) *The A'- Disjointness Requirement*
A pronoun must be A'- free in the least complete functional complex containing the pronoun and a subject distinct from the pronoun.
McCloskey (2005:9) Example (30)

A'- Disjointness Requirement is the name for HSR in Principle B concerns. According to (20), the complete functional complex (CFC) for a resumptive pronoun in the highest subject position will be the higher clause given that a distinct subject is needed. If CFC is the higher clause, the resumptive is bound by its antecedent in its CFC, hence ungrammaticality. Thus, this ungrammaticality is taken to be evidence for the pronominal status of the resumptive element since A'- Disjointness requirement seems to be developed from Condition B of Binding Theory (McCloskey 1990).

With respect to (ii), the fact that the distribution of resumptives in some languages is predicted by specific complementizers or relative pronouns (McCloskey 1990, Aoun et. al. 2001) suggests that the derivation of resumptives might involve an AGREE process with the C heads in relative clauses. Another implication of the distributional properties of the resumptives with respect to their derivation comes with the cross-linguistic differences. For example, languages such as English (McDaniel and McCowart 1999) restrict resumptives to long distance relativization contexts. This suggests that resumptives work as repairer of a violation caused by the gap in the same position and for this case, there is no need for a specific derivation for the resumptives, they appear in a position where their gap counterparts can not. However, there are languages which make use of a productive resumption strategy in that the occurrence of resumptives is optional in certain positions: Semitic group including Arabic varieties and Hebrew (Demirdache 1991, Aoun et. al. 2001, Ouhalla 2001), Celtic group including

Irish and Welsh (McCloskey 1990, 2002, Willis 2000), Austronesian group including Palauan, Chamorro and Slavic group including Polish, Ukrainian (Lavine 2003). The optionality of resumptives requires a specific derivational process which licenses them. Moreover, the distributional properties of resumptives in island contexts provide evidence for the nature of this licensing process with respect to whether the licensing involves movement or not. Resumptives in most languages have been shown to exhibit no island effects. This implies the absence of movement in resumptive chains in those languages. However, there are also some languages which have resumptives causing ungrammaticality in island contexts as well and this speaks for the presence of movement in resumptive chains.

2.2.2. Distribution of Resumptives in Turkish

The distribution of resumptives in Turkish has implications for the above mentioned cases as well. First of all, the optionality of resumptives in certain positions seems to suggest a specific derivation for the licensing of resumptives. This is because resumptives seem to be different grammatical formatives from gaps given that the distribution of the two categories overlaps at least in certain positions. This is exemplified in (21) below.

(21) *kendisin-i*$_i$ / *ec* sev-diğ-im adam$_i$
rp-ACC love-DIK-1sg man
"The man whom I love (him)"

In (21) the resumptive can alternate with the corresponding empty category, showing its optional occurrence in the internal complement position. However, resumptives in Turkish function as saving devices or a repair strategy in non-subject relative clauses and are not sensitive to islands as the examples in (22a-b) indicate:

(22) a. *[*pro*$_i$ anne-si] *ec*$_i$ ekmek bile ver-me-yen *zavallı çocuk*$_i$
mother-3sg bread even give-NEG-REL poor boy
"The poor boy whose mother does not even give (a piece of) bread "

b. [*pro*$_i$ anne-si] *kendisin-e*$_i$ ekmek bile ver-me-yen *zavallı çocuk*$_i$
mother-3sg rp-DAT bread even give-NEG-REL poor boy
"The poor boy whose mother does not even give (him) (a piece of) bread."

In (22b) the resumptive element seems to license the subject strategy when it is not otherwise grammatical.[9] This fact suggests no specific derivational process for the licensing of resumptives in Turkish. The resumptives as saving devices have been discussed to show that the island violations are repaired by the insertion of a resumptive element (Shlonsky 1992 among others). However, the grammaticality contrast in (22a-b) does not seem to have anything to do with the island phenomenon since there is no syntactic island in the structure, the relative clause is a simple relative clause in Turkish. Moreover, the applicability of island constraints as diagnostics for the exact nature of resumptives is not without problem in Turkish due to the fact that resumptives respect islands in some contexts and do not respect in others. Based on these facts above, we will raise the question whether resumptives in Turkish are of two different types (i) real resumptives and (ii) resumptives as saving devices, whose licensing involves different derivational procedures.

Secondly, resumptives in Turkish have implications with respect to the HSR of McCloskey (1990) which bans resumptives to occur in the highest subject position. Since Turkish resumptives can appear in the highest subject position in a relative clause,

[9] Moreover, there are simple relativization instances where the resumptive seems to amend the structure. The example below is from Öztürk (2008).

(i) [*Kendi-sin-i* / *ec köpek ısır-an] çocuk
rp-acc dog bite-REL child
"The child who got dog bitten"

In (i) the resumptive pronoun resumes the head noun which is the object in the structure involving the pseudo incorporation of agent.

they can not be of pronominal category. This is exemplified in (23) below where the resumptive element occurs in the highest subject position:

(23) *Kendisi*$_i$ / *ec*$_i$ dün Ankara-dan gel-en adam$_i$
rp yesterday Ankara-ABL come-REL man
"The man who (*he) came from Ankara yesterday"

The grammaticality of this structure indicates that resumptives can occur in the highest subject position in Turkish, i.e. they can be "too close" to their antecedents.[10]

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[10] There is an important fact shown by the example in (23) with respect to the subject positioning in language. The resumptive in (23) seems to be interpreted as resumptive only when it precedes the temporal adverb *dün* (yesterday). In the reverse case, the pronoun *kendisi* (himself) receives an "emphatic" reading. This is illustrated in (i):

(i) Dün *kendisi*$_i$ gelen adam$_i$
yesterday rp come-REL man
"The man who came by himself yesterday"

This contrast implies that the licensing of resumptives in the subject position requires the adverb projected below the subject of the relative clause. Note that the same contrast is not present for the resumptives in internal complement position as illustrated in (iia-b):

(ii) a. *Kendisin-i*$_i$ / *ec*$_i$ dün gör-düğ-üm adam$_i$
rp-ACC yesterday see-DIK-1sg man
"The man whom I saw (him) yesterday"

b. Dün *kendisin-i*$_i$ / *ec* gör-düğ-üm adam$_i$
yesterday rp-ACC see-DIK-1sg man
"The man whom I saw (him) yesterday"

The examples in (i) and (iia-b) seem to indicate another contrast between subject and object relativization in Turkish and have implications for the recent proposal made by Öztürk (2008) on the issue. The question we raise for these facts is whether resumptives in the subject position have a different syntactic status from the ones in complement positions with respect to their distribution. If there is no restriction as to their occurrence in the subject position contra the majority of languages with productive resumption strategy, what might be the possible reasons for the restrictions on their order with the adverbial expressions? However, the contrast between (i) and (iia-b) might not be that illustrative for the present purpose given that objects which have accusative marking cannot be confused with adverbs. I thank Meltem Kelepir for this point. Moreover, the restriction on the resumptive interpretation of *kendisi* is only apparent given that there might be other reasons for the non-resumptive interpretation of *kendisi* in (i) above. Aslı Göksel (p.c) suggests that the prosody of the sentence is also important for the interpretation of *kendisi* as resumptive. That is to say, *kendisi* in (i) receives an emphatic reading due to the fact that it occurs in immediately preverbal position and as a result it is focused. The focus brings the emphatic reading of *kendisi*. This is supported by the example in (iii) provided to me by Meltem Kelepir (p.c).

(iii) Dün *kendisi*$_i$ toplantı-ya geç gel-en adam$_i$
yesterday rp meeting-DAT late come-REL man
"The man who (*he) came to the meeting late yesterday"

In (iii) above, *kendisi* is interpreted as a resumptive although it follows the VP level adverb *yesterday*. Thus, the restriction on the resumptive interpretation in the cases where the resumptive follows a temporal adverb is not that strong. This implies that the adverb positioning does not seem to be a strong indication for the subject positioning in resumption.

2.2.3. The Nature of Resumptives

Two facts which have been observed with respect to the semantic interpretation of resumptives are (i) resumptives receive a pronominal reading indicating that they are subject to Condition B of Binding Theory or (ii) resumptives receive a bound variable reading indicating that they are subject to Condition C of Binding Theory. This dual nature of the resumptives as a pronoun or a variable is related to the Binding theoretic considerations according to which resumptives have been shown to exhibit both Condition B and Condition C properties (cf. Chomsky 1982). For each case, Condition B and Condition C, the empirical evidence comes with the facts relying on semantic interpretation and the syntactic behavior of the resumptives in different languages. Doron (1984), Bianchi (1998), Sharvit (1999) have observed that unlike traces, resumptives induce specificity effects and do not receive "multiple individual" and "de dicto" readings. This can be taken as a semantic argument for the pronominal nature of resumptives. As for the syntactic evidence, it has been shown that resumptives are not sensitive to islands in many languages and they cannot be "too close" to their antecedent, i.e. the restriction on highest subject position *à la* McCloskey (1990), two facts which suggest that they behave like pronouns. As for their variable nature, McCloskey (1990), Shlonsky (1992) and Pesetsky (1998) have shown that resumptives exhibit strong crossover effects when bound by an epithet in languages such as Irish and Hebrew respectively. Ability to license parasitic gaps in Polish (Bondaruk 1990) and be coordinated with ordinary traces in Swedish (Zaenen et. al. 1981) is listed as additional evidence for the variable nature of resumptives.

2.2.3.1. Semantic Properties

There are a number of diagnostics for the semantic nature of resumptives to account for the different cross-linguistic facts. The compatibility of a resumptive with a non-

referential antecedent such as quantifiers is taken as evidence for the bound variable reading of resumptives. Sells (1984) points out that English resumptives are incompatible with a bound variable reading, hence they cannot have non-referential antecedents such as quantifier phrases. (24a-b) below show this asymmetry:

(24) a. I would like to meet *the linguist* that Mary could not remember if she had seen *him/ec* before.

b. I would like to meet *every linguist* that Mary could not remember if she had seen **him/ec* before.

Salzmann (2006:28) Example (30a-b)

In (24a) the antecedent of the resumptive element is a referential expression *the linguist* and the structure is grammatical. In (24b), on the other hand, the antecedent is a non-referential expression, a QP and the structure is ungrammatical. This fact suggests that resumptive pronouns in English receive only "e type" reading and can only be interpreted as a pronominal rather than a bound variable. However, Sharvit (1999) notes that resumptives are compatible with non-referential expressions in Hebrew. This fact has also been observed for the resumptives in Lebanese Arabic and Greek by Aoun et. al. (2001) and Alexopoulou (2006) respectively. This is illustrated by the examples (25a-b) from Lebanese Arabic:

(25) a. ha-l muttahame ʕrəfto ʔənno *hiyye* nhabasit
this-the-suspect.SF know.2P that she imprisoned
"This suspect, you know that she is imprisoned."

Aoun et.al. (2001:375) Example (10)

b. kəll məʕrim fakkarto ʔənno l-bolisiye laʔatu-*u*
each criminal.SM thought.2P that the.police.P caught.3P.him
"Each criminal, you thought that the police caught him."

Aoun et.al. (2001:390) Example (45)

In (25a) the left dislocated antecedent of the resumptive element is a referential expression and in (25b) it is a quantifier phrase, i.e., a non-referential expression. In

both cases, the structure is grammatical, a fact which suggests that resumptive pronouns in Lebanese Arabic can receive a bound variable reading.

The second diagnostic used in the literature for the semantic nature of resumptives is related to the asymmetry between resumptives and corresponding gaps (Sharvit 1999 citing Doron 1984). Sharvit (1999) has shown that some languages exhibit a contrast between resumptives and corresponding gaps when the subject of the relative clause is a quantified expression: Although gaps in relative clauses are compatible with both (i) "multiple individual" and "single individual" readings, and both (ii) "de dicto" and "de re" readings, resumptives are compatible only with the "single individual" and "de re" readings, that is to say, resumptives do not support "multiple individual" and "de dicto" readings in relative clauses.[11] (26a-b) below exemplify the asymmetry in (i) from Hebrew.

(26) a. ha-iSa Se kol gever hizmin *ec* hodeta lo
the woman *Op* every man invited thanked to- him
a. reading: The woman every man invited thanked him.
b. reading: For every man x, the woman that x invited thanked x.
Sharvit (1999:588) Example (1)

b. ha-iSa Se kol gever hizmin *ota* hodeta lo
the woman *Op* every man invited her thanked to- him
"The woman every man invited thanked him"
Sharvit (1999:588) Example (2)

(26a) above contains a quantified phrase in the subject position and a wh-trace in the complement position of the relativized verb. In (a) *the same woman is associated with all the men*; therefore the sentence receives a "single individual" reading. In (b), on the other hand, *a different woman is associated with each man*. Thus, it has a "multiple individual" reading. In (26b) a resumptive element is present in the gap position and only single

[11] Multiple individual reading refers to the reading where a grammatical form is associated with more than one individual in the world. In single individual reading, on the other hand, the grammatical form can only be associated with a single individual in the world. "De re" reading implies the real existence of an individual denoted by the grammatical form. "De dicto" reading, on the other hand, does not imply the real existence of the individual.

individual reading is possible. This suggests that having specificity effects, resumptives behave like a pronominal rather than a bound variable.

The asymmetry in (ii) has to do with the different behavior of resumptives with respect to "de dicto" vs. "de re" readings. When the relative clause contains a gap filled by a trace, both of these readings are possible. However, when the corresponding position is filled by a resumptive pronoun, only the "de re" reading is possible as the examples in (27a-b) indicate.

(27) a. Dan yimca et *ha-iSa* Se hu mexapes *ec*
Dan will find the-woman Op he look-for
"Dan will find the woman he is looking for"

b. Dan yimca et *ha-iSa* Se hu mexapes *ota*
Dan will find *the-woman* Op he look-for her
"Dan will find the woman he is looking for"
Sharvit (1999:593) Examples (11) and (12) respectively

In (27a) the gap position is filled by the trace and both readings are available. In (29b), on the other hand, where the gap position is filled by a corresponding resumptive element, only the "de re" reading is available. Although Hebrew relative clauses exhibit this asymmetry, Zurich German does not show this contrast as pointed out by Salzmann (2006). Alexopoulou (2006) has shown that resumptives in Greek relative clauses do not support "de re" reading, but in clitic left dislocation structures, the left dislocated element supports "de re" reading against "de dicto" reading.

Moreover, resumptives and gaps differ with respect to the availability of pair list reading in the answers to wh-questions. The pair list reading disappears in the case of resumptive, but is available in the case of corresponding gaps. Guilliot (2008) points out that this follows from the claim that pair list reading is tied to the presence of an indefinite copy, i.e. gap strategy. However, the interpretation of a resumptive can only give rise to a definite copy.

2.2.3.2. Syntactic Properties

With respect to the syntactic evidence used to support their variable nature, a number of facts have been observed in the literature: (i) resumptives induce strong and weak crossover effects which are diagnostic for the variable status of a syntactic object (cf. McCloskey 1990), (ii) resumptives can license parasitic gaps in the sense of Chomsky (1982) and (iii) resumptives can be coordinated with traces in the other conjunct. The first test (strong crossover violations) proposed by McCloskey (1990) has been applied to languages including Hebrew by Demirdache (1991) who argues that resumptives become variables at LF, and Polish by Bondaruk (1995) who argues that resumptives are S-Structure variables. Below is an example from Irish:

(28) *Sin an fear ar dhuirt an *bastard* go marodh *se* muid
that the man C said the bastard C kill-COND he us
"That is the man that the bastard said that he will kill us."
McCloskey (2005) Example (26)

Note that (28) is ungrammatical and this ungrammaticality comes with the violation of Condition C which regulates the distribution of variables. Since resumptives behave like traces in this specific context, one can conclude that just like traces, resumptives are variables.

Another evidence for the variable status of resumptives comes with parasitic gap licensing. Bondaruk (1995) notes that resumptives can license parasitic gaps in Polish relative clauses. Hebrew is another language having this fact as pointed out in Shlonsky (1992). In view of the facts of Moroccan Arabic however, Ouhalla (2001) has pointed out that parasitic gaps are in fact instances of resumptives. Below is an example from Polish which illustrates the licensing of a parasitic gap by a resumptive element.

(29) To jest ten list, co *go* Piotr wyrzucil bez przeczytania *e.*
this is this letter what it Peter threw away without reading
"This is the letter Peter threw it away without reading."
Bondaruk (1995:52) Example (68)

Chomsky (1982) defines a parasitic gap as a gap licensed by another gap in the sentence. The grammaticality of (29) above suggests that the second gap in the structure is licensed by the first gap, possibly a variable, which is pronounced as a resumptive. This fact suggests that resumptives behave like variables in syntax.

The last evidence for the variable status of resumptives is that they can be coordinated with traces. In other words, it is possible to coordinate two conjuncts where one conjunct has the trace and the second one the resumptive element. Based on the assumption that coordination is an across-the-board rule application, coordinated items are of the same category. This comes with Swedish as discussed in Zaenen et. al. (1981) and Polish as discussed in Bondaruk (1995). Consider (30) from Polish.

(30) Juz wiem, co to byl za obraz, co *go* Jan namalowal a Piotr
already I.know what this was picture what it John painted and Peter
sprzedal *ec*
sold
"I already know what picture it was that John has painted and Peter sold"
Bondaruk (1995:52) Example (67)

The Coordinate Structure Constraint of Ross (1967) holds that extraction must apply simultaneously to both conjuncts. Assuming that the conjuncts are CPs in (30), the extraction has to apply to both conjuncts and the empty category left behind is a trace in one conjunct and a resumptive pronoun in the other, and the two must be of the same category. Assuming that traces are variables by definition, a resumptive element must be so too.

2.2.3.3. Syntax of Turkish Resumptives

Turkish data seem to present evidence for both pronominal and variable status of the resumptive element. With respect to the semantic interpretation of resumptives, there are two important facts Turkish presents for the dual nature of resumptives: (i) resumptives in Turkish can have non-referential expressions as their antecedent and, (ii) resumptives do not support "multiple individual and "de dicto" readings. The examples in (31a-b) below indicate this pattern respectively:

(31) a. *kendisin-i_i / ec* polis-in ara-dığ-ın-ı düşün-düğ-üm
rp-ACC police-GEN look.for-DIK-3sg-ACC think-DIK-1sg
her suçlu$_i$
every criminal
"Every criminal I thought that the police looks for *him*"

b. Ahmet-in *kendisin-i_i / ec* ara-dığ-ı *adam$_i$*
Ahmet-GEN rp-ACC look.for-DIK-3sg man
"The man Ahmet is looking for (him)"
Resumptive: De Dicto reading: No ec: De Dicto reading: Yes
De Re reading: Yes De Re reading: Yes

In (31a) the antecedent of the resumptive element is a non-referential expression, a QP *her suçlu* (every criminal). The grammaticality of the structure shows that resumptives are compatible with non-referential antecedents. Hence, they receive bound variable reading. (31b) indicates a contrast between the traces and corresponding resumptives in that only the former support "de dicto" reading. Note that this fact is considered as the specificity effect resumptives show in some languages and this specificity effect goes with the pronominal nature of the resumptives. Based on these facts, we will raise the question whether specificity effects resumptives induce in Turkish seem to have implications on the mechanism which licenses them.

With respect to the syntactic behavior of Turkish resumptives, there are a number of facts indicating that resumptives are variables in nature: (i) that resumptives do not obey A'- Disjointness Requirement in (20) as discussed in the example (15), (ii)

that resumptives exhibit strong crossover effects and, (iii) that resumptives can be coordinated with traces. Resumptives in Turkish exhibit strong crossover effects when we apply the test proposed in McCloskey (1990).

(32) *[[*salağ-a*$_i$ [öğretmen-in$_j$ *kendisin-i*$_j$ sınıfta bırak-tığ-t_j-nı]
idiot-DAT teacher-GEN rp-ACC course-LOC flunk-DIK-3sg-ACC
söyle-diğ-im] öğrenci$_i$
tell-DIK-1sg student
"The student$_i$ whom I informed the idiot$_i$ that the teacher flunked him$_i$"

In (32), the resumptive element is co-indexed with and c-commanded by an epithet phrase, *salağ-a* (idiot), in an A- position, i.e. indirect object position. The ungrammaticality can be attributed to a Condition C violation (strong crossover) exhibited by the variables. Hence, the ungrammaticality is assumed to be resulted from the variable nature of a resumptive element which is bound by an epithet in A- position.

The facts above indicate that resumptives show pronominal property on the one hand and variable property on the other. This raises the question whether the distinction between "a pronominal element" vs. "a bound variable" is descriptively adequate for Turkish data with respect to the resumptives. Might resumptives be of a third category? We will propose additional testing grounds for the various properties resumptives show with respect to syntax and semantics.

2.2.4. The Derivation of Resumptives

Chomsky (1982) considered resumptives as appearing in positions where traces are excluded for locality reasons. This treatment was based mostly on English data. The fact that resumptives seem to be in complementary distribution with traces led Shlonsky (1992) to highlight the "last resort" consideration of resumptive elements which implies that no specific UG constraint is necessary for the distribution of resumptives. The fact that resumptive elements alternate with traces in some languages has been taken as

evidence for the challenges of "last resort" view of resumptives (Demirdache 1991) and cross-linguistic data have been discussed to find out a licensing mechanism within UG for the presence of resumptives in language.

The nature of resumption and the A'- dependency between the resumptive and its antecedent have been shown to be related to such syntactic phenomena as Condition C effects, island constraints, subjacency, Empty Category Principle (ECP), reconstruction. Earlier treatments of the issue (cf. Perlmutter 1972 cited in (McCloskey 2005) analyzed these constructions in view of a "pronoun deletion" rule which fails to apply in the case of resumptive pronouns. In other words, there is no need for a distinct UG mechanism which regulates the distribution of resumptives. In the later analyses, the nature of A'- dependency between the resumptive pronoun and its antecedent has been taken as showing either (i) a non-movement dependency where a resumptive element is base generated in its original position, (ii) a movement dependency where resumptives show classical movement properties such as respecting island constraints and/or showing reconstruction for binding and/or scope.

2.2.4.1. Base Generation Approaches to Resumption

The fact that resumptives are not sensitive to islands in a number of languages, i.e. they violate island constraints and they do not obey subjacency, is the basic motivation behind the non-movement analyses (McCloskey 1990, 2002). Chomsky (1982) treats resumptives as base generated pronominals which retain their status as pronominal where the Binding Theory applies and base generated resumptives are limited to predication structures.

Resumptives as Last Resort expressions approach holds that resumptives are inserted to the derivation to legitimize the otherwise improper trace within the relative clause. Last resort proposal dates back to the seminal work by Ross (1967) on the island

constraints on movement in that in some cases where a trace violates some syntactic constraint on movement in A'- dependencies, a pronominal element without a semantic content is introduced to the structure (to the trace position within the relative clause). English and Yiddish (Prince 1990) are two examples and (33) below illustrates the issue with an example from English.

(33) There are students$_i$ who you can never know what *they$_i$*/ **ec* are going to do.

In (33) the resumptive element in the subject position of the most deeply embedded clause is obligatorily present in the structure to rescue the island violation caused by A'-movement, an observation dating back to Ross (1967). This well-observed complementary distribution is explained with a proposal which holds that resumptives are nothing but last resort devices to save the long distance relativization cases which violate island constraints. In this fashion, we can approach the Hebrew case in the similar way. Consider (34).

(34) ha-/iş şe-Ruti ve-*hu* / **ec* ohavim kesef
the-man that-Ruti and-*him* love money
"The man that Ruti and him love money"

The *ec* in (34) is ungrammatical since the movement leaves a gap inside the coordinate subject, a violation of the Coordinate Structure Constraint. This ungrammaticality is rescued by the use of a resumptive pronoun through a last resort operation. This proposal easily predicts the descriptive fact we observed in section 2.1.3.1 in that resumptives are island insensitive, hence do not involve movement of a head noun or an operator in relative clauses. However, this argument falls short when we consider two facts: (i) There are languages where resumptives occur in island contexts with their trace counterparts, a fact which has been pointed out for Welsh by Rouveret (2002) and, (ii) Last resort consideration of resumptives requires them to be semantically empty. In

other words, since they merely save the island violations, they do not contribute to the interpretation of the sentences. However, already we have seen above that in some languages such as Hebrew, the traces and the resumptives are interpreted differently with respect to the "multiple individual-single individual" and "de dicto-de re" readings. This seems to be a problem for the last resort approach but does not necessarily rule it out. Pesetsky (1998) and Bianchi (1998) have argued that this so called specificity effect or semantic content comes with the nature of the chain in which the resumptive element is involved, rather than the true nature of resumptive. In other words, specificity or the presence of "de re" and "single individual" readings are about the chain rather than the resumptive itself.

The licensing of resumptives via AGREE operation proposed by Rouveret (2002) argues that resumptives in Welsh are sensitive to strong islands but they never show reconstruction effects, a fact which constitutes another diagnostic for the absence of movement. This puzzling behavior of Welsh resumptives led Rouveret (2002) to assume that resumptives are derived via AGREE without a subsequent MOVE operation in Welsh relative clauses. Lavine (2003) for Slavic Languages; Alexopoulou (2006) for Greek are other accounts which make use of the AGREE operation for resumption. Rouveret (2002) argues that both resumptive and gap dependencies are formed via AGREE relation between C head with interpretable REL feature and relativized element with uninterpretable REL feature. In gap relatives, this AGREE relation is followed by MOVE, and in resumptive relatives, AGREE takes place without a subsequent MOVE operation.[12]

Lavine (2003) focuses on Slavic resumption with a similar consideration of the AGREE operation. The choice between a gap strategy and the resumptive strategy is

[12] Meltem Kelepir pointed out to me that this raises the question whether the Agree operation is island sensitive or not. Agree is island sensitive in that resumption appears to save the derivation when the Agree operation fails. This is the position held by Boeckx (2003a) and I will discuss the issue in the next chapter.

reflected in the clause structure where a fully inflected relative pronoun in Spec-CP goes with the former, while morphologically invariant complementizer goes with the resumptive strategy. Alexopoulou (2006) also argues for the AGREE relation for the licensing and the distribution of resumptives. Alexopoulou assumes that relative clauses involve a wh-operator and this wh-operator is optionally associated with an uninterpretable wh-feature. This feature creates a variable to be bound by the wh-operator at LF. The reason why languages vary with respect to the obligatoriness and the optionality of resumptives comes with the question whether this wh-operator involved in relative clauses is coupled by a purely syntactic uninterpretable wh-feature. The presence of this feature makes Greek differ from the optional resumptive languages such as Arabic. In Greek, resumptives are restricted to the non-argument contexts and occur as last resort elements when the identification of φ-features fails. The absence of this feature creates obligatory resumptives in language.

2.2.4.2. Movement Based Approaches to Resumption

The second type of approach to resumption involves movement based accounts. Movement strategy implies that resumptives behave like gaps and for this reason should be considered as resulting from movement rather than being base generated. The basic motivations behind these movement based accounts were (i) the fact that resumptives induce reconstruction effects for binding and scope reasons, a fact discussed in Aoun et. al. (2001) for Hebrew and Lebanese Arabic and in Salzmann (2006) for Zurich German, (ii) coordination structures in some languages such as Swedish where the coordination of a trace and a resumptive is available (Zaenen et. al. 1981), (iii) the fact that resumptives in some languages exhibit crossover effects (Salzmann 2006 for Zurich German, Safir 1986, 1996), and (iv) the fact that resumptives in some languages such as

Polish (Bondaruk 1995) obey island constraints.[13] We will discuss these four movement facts with respect to resumption below.

Reconstruction effects are a property of movement structures where the moved constituent goes back, i.e. "reconstructs", to its original position for binding and interpretational purposes. The key factor in reconstruction is c-command in that it is the c-command requirement of scope taking elements such as quantificational expressions or potential antecedents of pronominal elements on the other element in the same structure that requires the moved constituent to reconstruct back to its original position. If the moved constituent goes back to its original merge position in order to be bound by its antecedent, the process is called "reconstruction due to binding". If the moved constituent goes back to its original merge position in order to be interpreted under the scope of a scope taking element, the process is called "reconstruction due to scope". The reconstruction process is shown in (35) below.

(35) XP > YP [YP$_i$] […...XP$_i$……..[YP]…....]

For the resumption case, this generally happens when a QP subject or a potential antecedent has wider scope over the N head in the relativized head position, a fact which suggests that the relativized head must reconstruct back into the relative clause for either scope or binding reasons. The example (36) below shows a reconstruction of the relativized head for binding reasons in Zurich German:

(36) D Periode vo *sim$_i$* Läbe, wo *niemert$_i$* garn *dr*über red, isch d Pubertät
the period of his life C nobody likes.to about it talks is the puberty
"The period of his$_i$ life that nobody$_i$ likes to talk about is puberty."
Salzmann (2006:20) Example (6b)

[13] Salzmann (2006) argues against the presence of island effects as evidence for movement in relative clauses. This implies that non-movement dependencies too show island effects and resumptives showing island effects are not necessarily derived under a movement chain.

In (36) the bound pronoun in the relativized head DP/NP must reconstruct back to the relative clause in order to be bound by the QP antecedent *nobody*. This reconstruction occurs in the presence of a resumptive pronoun *dr* and this suggests that resumptive structures involve movement of the relativized head. Reconstruction for scope reasons in the presence of resumptive elements inside the relative clause is also available in a number of languages. Consider (5b) of section 2.1.3.1 from Lebanese Arabic repeated here as (37) which is cited from Aoun et. al. (2001) for scope ambiguity in a resumptive structure:

(37) ʕaleemit karim fakkarto ʕənno ɣabbarna kəll ʕəsteez ʕənno leezim
grade.SF Karim thought.2P that told.1P each teacher that should
tiɣayyar
change.3SF
"Karim's grade, you thought that we told each teacher that it should be changed"

Aoun et. al. (2001:383) Example (31a)

The example in (37) is ambiguous between the non-distributive and distributive readings. In other words, the sentence is ambiguous between the reading "there is one grade that Karim has and the grade should be changed by each teacher (non-distributive reading)" and the reading "there are different grades of Karim that should be changed by each teacher (distributive reading)" as I have pointed out in section 2.1.3.1. In order for the distributive reading to be obtained in (37), the clitic left dislocated constituent *ʕaleemit karim* (Karim's grade) has to reconstruct back to a position which can be c-commanded by the QP *kəll ʕəsteeʒ* (each teacher). Note that this position is occupied by a resumptive element, a fact suggesting that the derivation of resumptives must involve a movement dependency.

Coordination structures in some languages such as Swedish, Hebrew and Polish where the coordination of a trace and a resumptive is available suggest that movement is at work in a CP consisting of a resumptive as well. In other words, extraction has to

apply to both conjuncts simultaneously, an assumption which dates back to Ross (1967). This fact is discussed in section 2.2.3.2, in order to show the variable nature of resumptives. Here, I consider this fact as an indication of movement, as a result of which a variable is created. (38) below from Hebrew is cited from Demirdache (1991) and is slightly modified for present purposes:

(38) ha?iş 0_i rina [roca *?oto*$_i$] ve [?ohevet t_i] yoter mikulam
the man OP Rina wants him and loves more than anyone
"The man that Rina wants and loves more than anyone"
Demirdache (1991:90) Example (35b)

In (38) above the first CP conjunct contains a resumptive element and the second one contains a trace. The null operator binds two variables, a resumptive element and a trace and both variables are subject to extraction due to the across-the-board rule application.

The third fact used as evidence for the movement in resumptive contexts is the crossover effects. Crossover effects in the generative tradition are considered evidence for the variable status of a particular element such as pronouns or epithets and the presence of movement. A strong crossover effect is observed through the ungrammaticality of a sentence which involves either a pronominal element c-commanding the trace of its antecedent or a variable bound by an element in A-position. This is exemplified in (39) from Zurich German:

(39) *De *Bueb*$_i$ won *er*$_i$ tänkt, dass d Marie *en*$_i$ gärn hät.
the boy C he thinks that the Mary him likes
'The boy$_i$ who$_i$ he$_i$ thinks that Mary likes t_i.'
Salzmann (2006:22) Example (12a)

In (39) there are two pronominal elements inside the relative clause. The first one *er* (he) is interpreted as a real variable and c-commands the other pronominal, a resumptive pronoun, *en* (him) in the complement position of the embedded verb. Note that the

structure is ungrammatical and the ungrammaticality is caused by the strong crossover violation where an A'- movement crosses a coreferential pronoun.

The last evidence for the presence of movement in resumptive contexts comes with island effects. Ross (1967) points out that movement respects islands and movement of an element out of an island causes ungrammaticality. An illustrative example (40) is given below from Polish.

(40) *Piotr$_i$, to ze Maria *go*$_i$ odwiedzila zdzwilo nas bardzo
Peter, that that mary him visited surprised us very much
"That Mary visited Peter surprised us very much"
Bondaruk (1995:45) Example (47)

The example (40) illustrates a left dislocation structure in Polish and the resumptive pronoun occurs in the sentential subject, hence an island. Note that the structure is ungrammatical, a fact suggesting that resumptives obey island constraints in Polish[14].

The movement approaches to resumption are of three types: (i) LF movement proposal (Demirdache 1991), (ii) Sub-move/stranding/big DP proposal (Boeckx 2003a), and (iii) Copy Spell out proposal (Pesetsky 1998, Grohman 2003).

LF movement proposal is introduced by Demirdache (1991) who discusses the resumptive structures in Arabic and Hebrew. LF movement proposal argues that resumptives are in-situ operators which move at LF. The basic motivation behind this movement proposal is the fact that resumptives induce reconstruction effects and LF movement of the resumptives falls naturally with this fact. Furthermore, there are a number of facts in Hebrew which support the LF movement proposal: (i) resumptives do not obey island constraints and this is an expected case under the assumption that LF movement does not obey subjacency constraints on movement which are active only

[14] One can question the resumptive status of the pronominal element in the sentential subject in a left dislocation structure as in (40). Bondaruk (1995) notes that resumptives in relative clauses do not obey island constraints, hence the pronominal copy in left dislocation structures such as (40) is not a resumptive pronoun. We leave the issue of whether it is a resumptive pronoun or not open and simply note that there are languages where resumptives can occur within island contexts.

in narrow syntax. (41) below shows how the LF movement of the resumptive element works in Hebrew.

(41) ha?iş$_i$ şe pagaşti *?oto$_i$*
the-man that meet.I him
"The guy that I meet"
S-Structure: [NP [CP [C şe] [IP *?oto$_i$*]]]
LF: [NP [CP *?oto$_i$* [C şe] [IP t_i]]]
Demirdache (1991:18) Example (10)

In (41) the resumptive pronoun which is assumed to be an in situ operator sits in the complement position of the relativized verb. At S-Structure it stays in situ but moves to the Spec-CP position at LF for quantificational purposes. Note that Demirdache assumes that restrictive relative clauses are A'- dependencies involving an operator-variable chain. The general motivations behind this movement are the facts that resumptives induce strong and weak crossover effects and the possibility of reconstruction in Hebrew. Particularly, she discusses optional resumptive pronoun fronting in Hebrew as evidence for LF movement. (42a-b) show this optional resumptive pronoun fronting in Hebrew.

(42) a. ha?iş$_i$ şe ?ani xoşev şe ?amarta şe sara katva ?al*av$_i$* şir
the-man that I think that said-you that Sarah wrote about-him poem
"The man that I think that you said that Sarah wrote a poem about"

b. ha?iş$_i$ şe ?ani xoşev şe ?amarta şe ?al*av$_i$* katva sara şir
the-man that I think that said-you that about-him wrote Sarah poem
"The man that I think that you said that Sarah wrote a poem about"
Demirdache (1991:19-20) Examples (11a-b)

In (42a) resumptive pronoun is inside an embedded clause and in its base position. In (42b), on the other hand, it moves to IP-adjunction position. Furthermore, the resumptive pronoun can move successive cyclically all the way to the matrix clause. (43) below indicates the fronting of resumptive pronoun to the matrix clause.

(43) ha?iş$_i$ şe ?al*av$_i$* ?ani xoşev şe ?amarta şe katva sara şir
the-man that about-him I think that said-you that wrote Sarah poem
"The man that I think that you said that Sarah wrote a poem about"
Demirdache (1991:19-20) Examples (11d)

Note that this sort of optional resumptive pronoun fronting is present in other languages such as Standard Arabic, Irish and Swiss German (Demirdache 1991:20-21). It can be pointed out that LF movement analysis of Demirdache (1991) can account for the paradoxical nature of resumptives: they show movement-like properties (crossover and reconstruction effects) on the one hand and they do not respect islands on the other. However, the analysis is still problematic in a number of respects. For instance, the fact that resumptives in Hebrew and in many other languages can license parasitic gaps requires further stipulations for the licensing of parasitic gaps at LF.

The second movement based proposal to resumptive structures is sub-move/stranding/Big-DP proposal discussed by Boeckx (2001, 2003a) and Aoun et. al. (2001). According to this approach, the resumptive element and its antecedent form a single DP upon first merge, the antecedent moves to some higher position stranding the resumptive element. Like LF movement proposal, this proposal is able to account for the movement properties of the resumptive structures. Boeckx (2003a, 2003b) argue that a resumptive pronoun and its antecedent start off as a big XP constituent. The surface word order is derived by the sub-extraction of the antecedent in a way similar to the stranding analysis of floated quantifiers provided in Sportiche (1988) for A-movement. The derivation of a resumption structure in this proposal is presented in (44) below.

(44) NP_i … [DP t'_i [D [t_i]]] D: resumptive pronoun
Boeckx (2003b:91) Example (22)

Note that the LF movement proposal of Demirdache (1991) can account for the island insensitivity of the resumptive pronouns given that LF movement does not obey subjacency. In this proposal, the island insensitivity of the resumptives is accounted for by assuming different chain formation strategies. Boeckx (2003a) assumes that resumptive chains involve [Match-Move] operations rather than [Match-Agree-Move]. Boeckx ties island effects to the properties of Agree and argues that in the absence of [Match-Agree-Move], chains can be formed across what used to be considered barriers or domains out of which movement is blocked (Ross 1967, Chomsky 1986). Boeckx (2003b) extends his analysis of resumption and island effects to the scrambling structures in language. Note that the long distance scrambling is explained with the same mechanism that is used for resumptives within islands. Note that Boeckx (2003a) claims that it is Agree operation which is subject to the island effects. Resumptive chains are formed by pure Match and Move operations of the movement. Therefore, the absence of island effects is explained by assuming a different mechanism of chain formation under resumption.

Aoun et. al. (2001) argue that there are two types of resumption in language: Apparent resumption where the licensing of the resumptive element is provided by movement and true resumption where the licensing of the resumptive element is provided by a process similar to binding.

Apparent resumption: Certain constructions which appear to involve resumption by a pronoun or an epithet phrase actually involve movement from a position within the maximal projection containing the pronoun or the epithet phrase. They label this type of resumption "apparent resumption" with the following conditions: (i) This movement cannot cross an island boundary. (ii) When the

resumptive element is not a strong pronoun[15], (tonic pronoun) or an epithet phrase, the relation between the launching site and the resumptive element is apposition. This excludes certain quantifiers from occurring in the launching site of such constructions. (iii) When the resumptive element is a weak pronoun[16], the movement position is the specifier of the weak pronoun. This does not exclude quantifiers. (iv) The hypothesis that movement is involved in apparent resumption contexts is supported by reconstruction effects.

Examples (45a-b) below indicate apparent resumption contexts. In (45a) a strong pronoun *hiyye* (she) is used as a resumptive which has a non-quantificational antecedent and there is no island between the resumptive and its antecedent. In (45b), on the other hand, the use of the same strong pronoun with resumptive function is ungrammatical since its antecedent is a quantificational expression.

(45) a. ha-l-muttahame ʕrəfto ʔənno *hiyye* nħabasit
this-the-suspect-SF know-2p that she imprisoned-3SF
"This suspect, that you know she was imprisoned."

b. *kəll muttahame ʕərfto ʔənno *hiyye* nħabasit
each suspect-SF know-2p that she imprisoned-3SF
"Each suspect, that you know she was imprisoned."
Aoun et. al. (2001:375) Examples (10 and 12)

The structure of the apparent resumption offered by Aoun et. al. (2001) is given in (46) below. Note that the big DP nature of the structure in (46) below comes with the assumption that a lexical DP sits in the Spec position of another DP headed by a weak pronoun.

(46) lexical DP_i ……$[_{DP}$ lexical DP_i $[\ _D$ weak pronoun]]
Aoun et. al. (2001:392) Example (50)

[15] Strong pronouns in Lebanese Arabic are pronouns which occur as independent morphemes. They usually occur in the subject position.

[16] Weak pronouns are pronouns which are affixed to lexical heads like N, V and P. As opposed to strong pronouns, they occur in all non-subject positions and are realized as clitics on a lexical head.

In (46) the big DP is the DP headed by a weak pronoun whose Spec position is filled by another lexical DP. The lexical DP in Spec position is the antecedent of the resumptive element which moves to a higher position and leaves a weak pronoun behind.

True resumption: Certain constructions that appear to involve resumption by a pronoun or an epithet phrase actually do involve resumption. In this case, no movement takes place from the position of the pronoun or the epithet phrase, but an A'-antecedent binds the resumptive. They label this type of resumption "true resumption" with the following conditions: (i) The antecedent-resumptive relation may cross an island boundary, (ii) Quantifiers are not excluded from being A'- antecedent of true resumptive elements.

The examples (47a-b) below illustrate true resumption in Lebanese Arabic. In (47a) the strong pronoun *hiyye* (she) used as a resumptive has a non-quantificational antecedent. Since there is a wh-island between the resumptive pronoun and its antecedent, there is no movement and the antecedent binds the resumptive. In (47b) the antecedent of the resumptive element is a quantificational expression. Unlike (45b) above, the structure is grammatical since the resumptives in true resumption cases can have quantificational antecedents.

(47) a. ha-l-muttahame badkun taˤrfo miin bifakkir ʔənno *hiyye* harabit
this-the-suspect-SF want-2p know-2p who think-3SM that she run away-3SF
"This suspect you want to know who thinks that she run away"

b. kəll muttahame badkun taˤrfo miin bifakkir ʔənno *hiyye* harabit
each suspect-SF want-2p know-2p who think-3SM that she run away-3SF
"Each suspect you want to know who thinks that she run away"
Aoun et. al. (2001:375) Examples (11b and 13a)

Aoun et. al. (2001) argue that relating resumptives to their antecedents via movement is preferable to relating them via binding. This reflects that true resumptive pronouns are licit only if apparent resumption pronouns are not. They present empirical evidence

based on an economy principle by showing that apparent resumption does block the use of true resumptive elements within a non-island. They conclude that true resumptive elements are last resort expressions in the sense that relating an antecedent to a resumptive element that it binds is a more costly operation than relating an antecedent to a copy that it binds.

Guilliot and Malkawi (2006) and Malkawi and Guilliot (2007) argue that the distinction between apparent resumption and true resumption is not at work in Jordanian Arabic and list cases where no reconstruction is involved in apparent resumption and reconstruction is involved in true resumption. They argue that the presence or absence of reconstruction depends on more than one parameter in Jordanian Arabic. These parameters are: (i) the type of resumption (strong resumptive element versus weak resumptive element), (ii) the type of island (strong island versus weak island), and (iii) the type of binding condition (bound variable anaphora and Condition A which allow some interpretations versus Condition C which excludes some interpretations). Malkawi and Guilliot (2007:11) argue that reconstruction with weak resumption follows from ellipsis, specifically NP deletion of pronouns. As for reconstruction with strong resumptives, they follow from copy theory of movement.

The Big DP proposal correctly predicts the movement facts such as reconstruction and Condition C effects in resumption. However, the fact that part of a big DP is extracted from the Spec position in this proposal is similar to the possessor extraction cases in languages where the possessor of a DP moves to higher positions in the sentence. Thus, the Big DP proposal would be problematic for the languages where the possessor extraction does not seem to be possible. We will investigate whether Turkish seems to be an example of this sort similar to other languages such as Greek (Alexopoulou 2006:107).

Copy spell out proposal of Pesetsky (1998) and Grohman (2003) assumes that a copy is left behind after the movement, and a pronominal element is an economical way to realize the φ-features of the copy, a proposal that goes back to Perlmutter's (1972) assumption that traces are pronouns. This proposal like the other two movement approaches to resumption can account for the movement facts in resumption contexts. (48a-b) below show the copy spell out consideration of the resumptive pronouns in language. In the (a) case the silent copy is spelled out while in the (b) case a resumptive pronoun is spelled out. Pesetsky (1998:26) points out that some movement dependencies may involve the pronunciation of both copies, the head and the trace together, while some movement dependencies allow the pronunciation of only one copy.

(48) a. XP antecedent$_i$ …….. [copy$_i$=(silent)]

b. XP antecedent$_i$ …….. [copy$_i$=resumptive]

Grohmann and Panagiotidis (2005) argue that resumptive elements are grammatical formatives that are inserted to legitimize a dependency whose members are too close/too far away to be licitly licensed, an approach which is similar to the last resort approach to resumption.

Note that this approach to resumptives cannot account for the fact that resumptives in many languages have interpretational differences (specificity effects) from silent copies/regular traces. However, if we assume following Bianchi (1998) that specificity effects caused by the resumptives are actually not a property of resumptive itself but the chain which involves the resumptive element itself, there would not be a problem with the spell-out proposal. That is to say, the specificity effect of resumptives is actually a property of the resumptive chain, a property which differentiates it from a gap chain. However, this explanation is still problematic because what makes a

resumptive chain different from the other chains with respect to specificity is still unclear and requires further stipulations on chain formation.

2.2.4.3. A Brief Discussion of Turkish Resumption

I will discuss resumption in Turkish in the next chapter. Here, I would like to address some issues in advance. Turkish data have implications on the derivation of resumptives. Note that Turkish presents puzzling behavior with respect to the movement and non-movement properties shown in resumptive contexts. On the one hand, resumptives in Turkish seem to function as saving devices or a repair strategy in non-subject relative clauses and do not seem to be sensitive to islands as I have pointed out in the introduction. This fact seems to suggest that resumptives in Turkish are explained by a base generation account. Consider (49).

(49) Ali-nin [*kendisin*-i_k takip ed-erken] kaybet-tiğ-i $adam_k$
Ali-GEN rp-ACC follow-while lose-DIK-3sg man
"The man whom Ali lost while following (him)"

The resumptive element in (49) occurs in an adjunct island and the structure is grammatical. This implies that resumptive structures do not involve a movement dependency between the relativization site and the Spec-CP position. The antecedent of resumptive, an empty operator, is base generated. However, for a discussion on islands we have to first clarify what is an island in Turkish. I will discuss the island phenomenon in Turkish in Chapter 3. Here, I would like to remark that constructions which are considered islands might not be real islands in Turkish. That is to say, islands in Turkish might be realized in a different way from other languages such as English. Moreover, islands might be construction specific in that while some constructions can act as an island for operator movement in relative clauses but not act as island for long distance NPI licensing or scrambling. I will discuss these issues in section 3.4.5.

On the other hand, resumptive structures in Turkish seem to exhibit the following movement properties: (i) they exhibit Condition C effects, (ii) they seem to undergo reconstruction due to scope.

Relative clauses with resumptives can be considered to exhibit reconstruction effects due to the scope properties of the quantified expressions. In this case the head reconstructs back to the relative clause, at least for one of the readings, since it has to be inside the scope of the QP in order to yield this reading. This fact is exemplified in (50).

(50) [$_{QP1}$ Her doktor-un$_i$] *kendisin-i$_j$* muayene et-tiğ-i$_i$ [$_{QP2}$ üç hasta$_j$]
every doctor-GEN rp-ACC examine-DIK-3sg three patient
Reading 1: "The three patients who every doctor examined"
Reading 2: "Different three patients every doctor examined"

The example (50) includes a resumptive element and two quantified phrases: *her doktor-un* (every doctor) (QP1) in the subject position of the relative clause and *üç hasta* (three patients) (QP2) in the head position. Note that (50) is ambiguous between (i) the QP2 scopes over QP1, reflecting the surface c-command relation and, (ii) QP1 has scope over QP2. In order for this scope relation to take place, QP2 which is the head of the relative clause has to reconstruct to a position within the relative clause. We will investigate if this can be considered another fact suggesting that the movement is involved in resumptive structures.[17]

2.3. Conclusion

This chapter addressed the issues raised in the literature about resumption and resumptive pronouns. The properties of resumption discussed here will be examined for the Turkish data in the following chapter where I offer a licensing mechanism for resumption. The puzzling behavior resumptives exhibit with respect to classical

[17] The example (50) also shows that the resumptive pronoun brings individuation to the structure. The group interpretation of the head noun in the gap structure disappears in the case of resumption. I thank Aslı Goksel for pointing this out to me.

movement properties implies the question whether resumptives in Turkish require a different licensing mechanism which makes use of the movement mechanism in a different way. We will investigate the core theoretical assumptions and operational procedure of this mechanism.

CHAPTER III

RESUMPTIVE CHAINS

This chapter deals with the nature of resumptive chains and how the resumptive pronouns are licensed in language. It also discusses the domain in which resumption has an effect on clause structure and explains the connections between resumption and one of the core phenomena of linguistics, the licensing of empty positions in syntax. I aim at providing a system for resumption which has explanatory power on the issues such as binding, null object licensing, control, locality and clausal architecture.

I argue that resumption chains in Turkish have more domains of application than just occurring in relative clauses. Resumption is also involved in null object constructions, control structures and in binding chains. Second, following Demirdache (1991), Pesetsky (1998) and Boeckx (2003a), I argue that resumption involves movement and the movement approach is supported by the availability of reconstruction due to scope reasons. Third, I argue that resumption phenomenon is directly linked to the null arguments in language. And, the fact that resumptives in Turkish are syntactic variables is actually a result of the fact that null arguments in Turkish are variables in nature. Fourth, I argue that the discussions on the relationship between the occurrence of resumptives and islands are irrelevant. Resumptives exhibit a different type of locality, which is derived from the clause structural properties.

3.1. The Nature of Resumptives

What a resumptive element is and how it occurs in relative clauses were discussed in Chapter 2. In this section we reconsider the semantic and syntactic nature of resumptives as they occur in Turkish data and redefine them in accordance with the

facts observed. The section is mainly concerned with the dual nature of resumptives, variable or pronominal, with respect to their semantic and syntactic properties.

3.1.1. Turkish Resumptives

As stated in descriptive grammars of Turkish, Kornfilt (1997) and Göksel and Kerslake (2006:270), Turkish makes use of resumptives in the gap position within a relative clause, as they occur in languages where resumption is productively used.[18] Consider (1a-b) where the resumptive element *kendi-si* occurs within the relative clause in (1a) and a gap occurs in the corresponding position in (1b).

(1) a. [$_{\text{Rel. Cl.}}$ *kendisin*-i$_i$ gör-düğ-üm] adam$_i$
rp-ACC see-DIK-1sg man
"The man I saw (him)"

b. [$_{\text{Rel. Cl.}}$ *ec*$_i$ gör-düğ-üm] adam$_i$
see-DIK-1sg man
"The man I saw"

The italicized element in (1a) occurs in a position where the object of the relative clause, i.e. the head noun *adam* (the man), is interpreted. As illustrated by the contrastive case in (1b), the element appears in the position in which the phonologically null element occurs and is interpreted to have the same reference as the head of the relative clause.

The morphological shape of the italicized pronominal element in (1a) and the distance between the resumptive element and its antecedent speak for a dependency between two positions in a configuration where the antecedent binds a pronoun rather than an anaphoric element. Moreover, in most languages where resumption is a

[18] According to Kornfilt (1997, 2000a, 2006), this use of the pronominal element *kendisi* is restricted to save long distance extractions like those found in relativizations out of relative clauses. In this sense, Kornfilt argues that Turkish does not make use of resumptive pronouns in simple relative clauses and she marks the examples such as (1a) as ungrammatical. We assume at this initial point that there is a dialect split with respect to the acceptance of resumptives in simple relative clauses. We base our discussion on the grammaticality judgments of the dialect which accepts the resumptives in simple relative clauses as well as in relativization out of relative clauses.

productive strategy, resumptives are identical to the regular personal pronouns. Consider (25a) of Chapter 2 from Lebanese Arabic which is repeated here as (2).

(2) ha-l-muttahame_i ʕrəfto ʕənno *hiyye$_i$* nhabasit
this-the-suspect-SF know-2p that she imprisoned-3SF
"This suspect, that you know she was imprisoned."
Aoun et.al. (2001:375) Example (10)

The italicized regular personal pronoun in (2) is used with resumptive function in Lebanese Arabic. In Turkish, on the other hand, regular personal pronouns are not used resumptively as can be observed in (3a-b) below.

(3) a. *[*on*$_i$-u gör-düğ-üm] adam$_i$
he-ACC see-DIK-1sg man

b. [*kendisin*-i$_i$ gör-düğ-üm] adam$_i$
rp-ACC see-DIK-1sg man
"The man that I saw (him)"

The ungrammaticality of (3a) indicates that regular personal pronouns cannot be used with resumptive function. Therefore as is shown in (3b), resumptives are limited to *kendi-si* which I assume at this point is the composite of *kendi* and the third person singular possessive marker. The discussion of this partition is given in Section 3.2.

I propose that this property of Turkish resumptives distinguishes them from the resumptives in languages such as Hebrew and Irish. While resumptives in those languages induce their own licensing requirements such as being variable or pronominal in syntactic nature, exhibiting Condition C or B effects on the clausal architecture, resumptives in Turkish are subject to the general properties of clausal architecture in Turkish with respect to the licensing of empty categories, i.e. null subjects, null object NPs, wh- or Operator traces within a clause. This makes us reconsider the pronominal dependencies within a Turkish clause in the following chapters. To hint, resumption and other null argument licensing require the licensing by an empty operator in C domain.

The A'- chains formed between the C domain and the T-V domains license the null arguments, resumptives and anaphors within the clause, and it is the task of this chapter to introduce the licensing mechanisms for these categories. I propose that the A'- chain is material sensitive in that only linguistic expressions which are of variable nature can occur in the tail of these chains. This predicts that personal pronouns are not allowed in A'- chains, a fact that we discuss in Chapter 5.

While languages where resumption is used as a productive strategy to form A'-dependencies such as relativization, clefting, left dislocation and topicalization make use of resumptives in the position of a corresponding A'- trace, Turkish makes use of resumptives to pronounce a bound variable inside the clause, irrespective of structure, whether it involves movement or not. I propose later in the chapter that resumption involves movement while null object constructions do not.

3.1.2. Relative Clauses in Turkish

We assume that relative clauses in Turkish involve a dependency between the two positions involving a gap/pronominal element and an antecedent. That is to say, there is a chain linking the lower position where a gap or a pronominal element occurs and the higher position where the antecedent sits. With respect to the relative clause formation, we have provided the derivations offered in the literature in the introductory chapter. For Turkish, Operator movement analysis of Chomsky (1977) is assumed in studies such as Özsoy (1994, 1996). Kornfilt (2000a, 2004), on the other hand, proposes that head raising analysis of relative clauses *à la* Kayne (1994)[19] can also work for Turkish.[20]

[19] Note that Kayne's (1994) anti-symmetry approach derives head initial relative clauses of the type represented by English. However, his Chapter 9 exclusively discusses the derivation of head final relative clauses in terms of head raising analysis. After the movement of the head noun, the whole IP moves to the Spec-DP position and creates a head final relative clause. Kayne (1994) points out that head final relative clauses lack an overt complementizer. However, Demeke (2001:192) point out that Amharic employs overt complementizers in head final relative clauses. Demeke (2001) argues that head final relative clauses move to the functional Agr projections in order to check definiteness.

Following Kornfilt (2000a) and Meral (2004), I propose that Turkish presents evidence for the (non)-applicability of both derivations. Assuming that there is no determiner in Turkish (Ketrez 2004, Öztürk 2005 but see Arslan 2006 for the arguments to the contrary), we claim that relative clauses are not complementation structures where D head takes relative clause CP as its complement. However, scope reconstruction facts speak for the head raising approach. Note that reconstruction effects which are considered to be evidence for head raising approach can also be handled under Operator movement analysis. We assume following Özsoy (1996) that the dependency is formed via movement and it is the empty operator which undergoes movement. The movement is triggered by the Rel feature on C head. The feature attracts the Op inside the clause to the Spec position in the C domain.

The important point with respect to the relative clauses here is that they are strictly operator-variable constructions. "Strictly" means that the dependency involved in relative clauses is not of the pronominal type but of the variable type (contra Aygen, 2002)[21]. This explains the ungrammaticality of regular pronouns in the gap position within relative clauses. Regular pronouns are disallowed since they assign a semantic value to the restriction of the head noun. In other words, they share an index with the head noun which is under the restrictive force of the Operator. Resumptives, on the other hand, form a dependency between the gap position and the head noun through the Operator.

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[20] Aoun and Li (2003) argue that languages do not exclusively apply either head-raising or operator movement to derive their relative clauses. The choice of either option is based on morpho-syntactic properties of relative clauses and other general conditions of the grammar such as reconstruction effects, the complementizer system and idiom relativization.

Kornfilt (2000a:125) points out that the gap in the modifying domain in Turkish relative clauses is a bound variable resulting from syntactic movement. The moved element can either be argued as a null operator or the relative head. Kornfilt (2000a) argues that the same derivation Kayne argued for English, is involved in relative clauses of right-headed languages like Turkic languages. But there is an additional step involved: The IP complement of the C moves to the specifier position of the higher DP. The last movement yields pre-nominal modification.

[21] Following Krause (2001), Aygen (2002:27 ff. 24) proposes that the empty category inside the relative clauses is not a trace, but a *pro*.

It is a well observed fact that there are two strategies in Turkish for relative clause formation: (i) subject relativization done by *-(y)An* where the relativized verb is not inflected with agreement markers and the subject position is empty. (ii) non-subject relativization done by *-DIK* where the verb carries the agreement marker and the subject is realized in genitive case. A number of different explanations have been proposed for the issue.[22] I propose that the *-(y)An* strategy is the true relativization strategy in Turkish where the verb is relativized through participle formation. *-DIK* strategy is done via nominalization akin to the formation of nominalized clauses with other functions, i.e. complement and adjunct clauses (Kornfilt 2000a).

I propose that the different relativization strategies have effects on the distribution of resumptives. While resumptives are more readily allowed in non-subject relativizations, their occurrence in subject relativizations is subject to a number of conditions. We will see that in island contexts, in the presence of two variable positions inside the clauses, the complement position is preferred to be pronounced as resumptive over the subject position. I will discuss these issues in the section on islands.

3.1.3. Distributional Facts

As we have pointed out in the introductory chapter and Chapter 2, it has been observed that a resumptive can be co-indexed with (i) the head noun in relative clauses, (ii) the moved wh-constituent in constituent questions (Semitic languages, Aoun et. al. 2001 and Irish, McCloskey 2005), (iii) clefted constituents in cleft structures (Irish, McCloskey 1990), and (iii) topicalized constituents in topicalization structures (Tongan, Hendrick 2005) and (Polish, Szczegielniak 2005). What is common in these structures is that they exhibit movement properties in that a gap position is available in the movement site,

[22] For a detailed discussion of the choice of the participle affix in relative clauses see Underhill (1972), Hankamer and Knecht (1976), Slobin (1986), Haig (1997), Kornfilt (2000a and 2000b), Schönig (2000), Çağrı (2005), Ulutaş (2006), Öztürk (2008).

which is filled by a resumptive element interpreted with the moved constituent. This implies that the dependency in which the resumptive element is involved is not of anaphoric or pronominal type, but of operator-variable type.

This section provides a discussion on the distributional properties of resumptives in Turkish. As in languages where resumption is a productive strategy alongside the gaps found in corresponding positions, resumptives in Turkish can occur in a number of syntactic positions such as internal complement, second complement, complement of postpositions, embedded subject and possessor positions. There is one position where resumptives behave differently from other resumption languages, the highest subject position. A number of resumption languages such as Irish (McCloskey 1990, 2002, 2005) tend to ban resumptives in this position but not Turkish.[23]

Despite the availability of resumptive pronouns in the gap position of the above stated structures in other languages, in Turkish they mainly occur in relative clauses, and not in the other types of constructions. Hence, we will only focus on the relative clause structures in this study.

3.1.3.1. Resumptives in Complement Positions

Resumptives can occur in internal complement and second complement positions in Turkish. In these positions, resumptives are optional in that both a gap and a resumptive can be licensed.

(4) a. *kendisin-i*$_i$ / *ec*$_i$ sev-diğ-im adam$_i$
rp-ACC love-DIK-1sg man
"The man I love (him)"

b. *kendisin-e*$_i$ / *ec*$_i$ çiçek ver-diğ-im öğretmen$_i$
rp-DAT flower give-DIK-1sg teacher
"The teacher to whom I gave flowers"

[23] Turkish resumptives in the highest subject position seem to be restricted to simplex relativizations. In relativization out of an island contexts, resumptives are not allowed. I will discuss this issue in the section on islands.

In (4a) the resumptive occurs in the internal complement position of the verb and in (4b) it occurs in the second complement position of the relativized verb. Note that both a gap and the resumptive are licensed, hence there is no ungrammaticality. This means that the A'- dependency can be formed with a gap or a resumptive element.

The complement position of the postposition, on the other hand, is problematic in that resumptives alternate with gaps in the complement position of some postpositions but not in others. This is illustrated in (5a-b) respectively.

(5) a. *kendisin-e*$_i$ / **e*$_i$ göre hasta ol-duğ-um adam$_i$
rp-DAT according to ill be-DIK-1sg man
"The man according to whom I am ill."

b. *kendisi*$_i$ / *e*$_i$ hakkında çok şey bil-diğ-im adam$_i$
rp about much thing know-DIK-1sg man
"The man about whom I know a lot."

While the gap is not licensed in (5a), it is licensed in (5b).[24] The postposition in (5a) is a "true" postposition in that it is not inflected with a possessive marker. The one in (5b), on the other hand, is inflected with the possessive marker.[25] Note that the different behaviors of the two postpositions in (5a-b) suggest a distinction between two postposition types in Turkish. Kornfilt (1984) proposes that the postposition in (5a) is a true postposition while the one in (5b) has a NP structure due to the possessive marker it carries.

[24] See Kornfilt (1984:98 ff. 11) for a discussion. She claims that PPs act as islands for relativization. She argues that PPs lack COMP positions that act as "escape hatches" for syntactic movement which has to obey subjacency. Kornfilt (1984:98) makes the following explanation:

> "No process can phonologically strand a postposition, unless the postposition is followed by an overt AGR element."

[25] Lewis (1967) proposes a distinction between the postpositions in Turkish. According to Lewis (1967:85-95), there are two types of postpositions in Turkish: (i) primary postpositions and (ii) secondary postpositions. Following the facts presented above, we can assume that primary postpositions do not allow a gap in their complement positions while the secondary postpositions do. See also Kornfilt (1984) for a discussion of these postpositions.

However, given that there are postpositions with *'-sIn'* that do not allow gaps in their complement positions, the explanation above fails. These postpositions are *bakım-ın-dan* (with respect to), *yüz-ün-den* (due to), *dış-ın-da* (except/out of), *yan-ı-sıra* (besides), *taraf-ın-dan* (by) and *yön-ün-den* (with respect to). Two of these postpositions are exemplified in (6a-b).

(6) a. *kendisi*$_i$ / **ec*$_i$ yüzünden hasta ol-duğ-um adam$_i$
rp because of ill be-DIK-1sg man
"The man because of whom I am ill"

b. *kendisi*$_i$ / **ec*$_i$ dışında kimse-yi sev-me-diğ-im adam$_i$
rp except noone-ACC love-NEG-DIK-1sg man
"The man except whom I loved anyone"

The ungrammaticality of gaps in (6a-b) indicates that it is not the possessive morpheme *'-sIn'* which is responsible for the different behaviors observed among the postpositions. I propose that this grammaticality contrast is not actually related to resumption. The resumptive chain in (6a-b) does not involve the agreement morpheme *'-sIn'*. *'-sIn'* in this case is not in the structure for resumption purposes, but for regular genitive-possessive construction purposes. Thus, the possessive morpheme on the postposition does not participate in the resumptive chain, i.e. no licensing relationship is established between the Operator and *'-sIn'*. The claim I made for the different behaviors of morphologically identical postpositions predicts different syntactic behaviors for the two groups. This prediction is borne out given that postpositions which do not allow their complements to be dropped show the same behavior in non-resumptive contexts. Compare (7a) with (7b).

(7) a. (Ahmet) hakk-ın-da konuş-tu-k.
Ahmet about-3sg-LOC talk-PAST-3sg
"We talked about Ahmet."

b. Ahmet / *ec$_i$ dış-ın-da kimse gel-me-di.
Ahmet out-3sg-LOC noone come-NEG-PAST
"Noone came except Ahmet."

The grammaticality contrast in the examples above supports our claim that postpositions with an internal NP structure differ with respect to the function of *'-sIn'*. In the former case, *'-sIn'* functions as resumptive and takes part in the resumptive chain.[26] In the latter *'-sIn'* occurs in a regular genitive-possessive construction without taking a role in resumption, i.e. *'-sIn'* does not have a role of resuming its antecedent.

3.1.3.2. Resumptives in Adjunct Positions

Resumptives can both be obligatory and optional in VP-adjunct positions. That is to say, in the absence of a clear tendency among the various adjuncts with respect to their behavior as resumptives, some resumptives with certain case markers in VP-adjunct positions are obligatory while some others with the same case markers are optional. This is illustrated in (8a-b):

(8) a. *kendisi-yle*$_i$ / *ec*$_i$ dans et-tiğ-im adam$_i$
rp- COM dance-DIK-1sg man
"The man I dance with"

b. ?*kendisi-nden*$_i$ / **ec*$_i$ gel-diğ-im adam$_i$
rp-ABL come.from-DIK-1sg man
"The man I come from his (house)"

(8a) is grammatical while (8b) is not. In (8a) both the empty category and the resumptive are licensed. In (8b), on the other hand, the empty category is not licensed. The ungrammaticality of (8b) is expected since the adjuncts are not L-marked by the verb and violate Empty Category Principle (Chomsky 1986). In minimalist thinking, we can say that the gap position inside an adjunct can not be licensed due to the fact that the

[26] However, this does not mean that resumption is involved in structures such as (7a-b). (7a-b) involve two finite clauses which involve postpositional elements behaving differently with respect to their complements.

operator in the C domain cannot operate inside a VP which has no case checking potential. In other words, the chain between the Op and the relativization position is not well formed in the absence of a supportive resumptive element in the tail position.

However, the grammatical case needs an explanation. We propose that the grammaticality difference has nothing to do with the licensing mechanism itself, but with the restriction set of the head noun. We propose that the (un)availability of the gap within an adjunct depends on the event structure of the relativized verb. Accordingly, the event structure which includes the mutual involvement of the head noun and the subject of the relative clause licenses the gap in adjunct position. Consider the examples in (9a-b).

(9) a. *kendisi-yle*$_i$ / *ec*$_i$ dans et-tiğ-im adam$_i$
rp-COM dance-DIK-1sg man
"The man that I danced with"

b. *kendisin-e*$_i$ / *kendisi-yle*$_i$ / **ec*$_i$ koş-tuğ-um adam$_i$
rp-DAT rp-COM run-DIK-1sg man
"The man towards whom / with whom I run"

In (9a) the verb *dans et-* (to dance) involves a mutual activity whose agents are the head noun and the subject of the relative clause. In this case the commutative reading of the empty category via resumptive or via gap is possible. I propose for (9b) that the absence of mutual involvement in locative reading causes the obligatory use of the resumptive for the disambiguation of the sentence.[27]

The different behaviors of resumptives and gaps in VP adjunct position can also be explained under a syntactic account. For the positions in which gaps are licensed, we

[27] Meltem Kelepir suggests that the mutual activity relation in this case can also be considered as indicating the oblique argument status of the empty category in the relativization position. Accordingly, the oblique argument in (9a) is recoverable from the argument structure whereas in (9b) the adjunct is not recoverable as to whether it is associated with goal or commutative readings. In this case, a resumptive is needed in order to recover the case and theta reasons. Note that this suggestion is in line with what I propose in the dissertation. Both explanations are based on the idea that structures where the gaps are allowed and those where the gaps are not allowed are different with respect to the argument structure of the verb.

assume that these positions are syntactically lower adjunction positions than those in which gaps are not licensed. Thus, the chains formed between a lower adjunction position and the Spec position in the C domain can license a gap. The higher adjunction positions, on the other hand, do not allow the formation of an A' chain to be established between the operator and the gap. The position of the corresponding resumptives in (10a-d) supports this proposal.

(10) a. ?Hızlı hızlı *kendisi-yle*$_i$ / *ec*$_i$ dans et-tiğ-im adam$_i$
rapidly rp-COM dance-DIK-1sg man

b. *?Hızlı hızlı *kendisin-e*$_i$ / *ec*$_i$ koş-tuğ-um man$_i$
rapidly rp-DAT run-DIK-1sg adam

c. ?Kesinlikle *kendisi-yle*$_i$ / *ec*$_i$ dans et-tiğ-im adam$_i$
absolutely rp-COM dance-DIK-1sg man

d. *?Kesinlikle *kendisin-e*$_i$ / *ec*$_i$ koş-tuğ-um adam$_i$
absolutely rp-DAT run-DIK-1sg man

e. ?**Kendisi-yle*$_i$ / *ec*$_i$ kesinlikle dans et-tiğ-im adam$_i$
rp-COM absolutely dance-DIK-1sg man

f. ?**Kendisin-e*$_i$ / *ec*$_i$ kesinlikle koş-tuğ-um adam$_i$
rp-DAT absolutely run-DIK-1sg man

(10a-f) include VP and TP level adverbs *hızlı hızlı* (rapidly) and *kesinlikle* (absolutely), and the resumptive pronoun in the relativization site. Note that both structures are adjunct relativization structures. The important point here is the relative ordering between the resumptive and the adverb. The resumptive element following the VP level adverb is acceptable in (10a), but not in (10b).[28] We propose that this suggests a difference in

[28] The grammaticality judgments vary for this example in that some native speakers find (a) and (b) cases equally acceptable or equally unacceptable. Moreover, (10b) becomes more readily acceptable when we take the resumptive into sentence initial position as illustrated in (i), I thank A. Sumru Özsoy for providing this example to me.

(i) *Kendisin-e*$_i$ / *ec*$_i$ hızlı hızlı koş-tuğ-um adam$_i$
rp-DAT rapidly run-DIK-1sg man

Hence, the different position for adjunction does not seem to be a satisfactory explanation. It may be the case that the thematic hierarchy affects the clause structure in (10a-f) in terms of adverb positioning. I

adjunction position for the resumptives in (10a) and (10b) in that the resumptive in (10a) is adjoined lower than the one in (10b). In (10c-d) a TP level adverb is used with resumptives. Note that both structures are equally acceptable. However, when we front the resumptives into sentence initial position in (10e-f), the structures become worse. In this case, resumptives seem to be adjoined higher than VP level. I conclude from this discussion and footnote 31 that the syntactic positioning of the adjunct resumptives does not indicate a clear property with respect to the optional versus obligatory nature of the resumptives. That is to say, the fact that while some adjuncts are optional, others are obligatory must be investigated on independent grounds where the issue is examined with respect to adjunct positioning and internal nature of the adjunction in language. I leave the issue for further investigation.[29]

3.1.3.3. Resumptives in Subject Positions

There are two subject positions in which resumptives are licensed in language: (i) the embedded subject, and (ii) the highest subject positions. Resumptives in Turkish can occur optionally in these positions as (11a-b) illustrate:

(11) a. *Kendisi-nin*$_i$ */ ec*$_i$ yarın gel-eceğ-in-i söyle-diğ-im arkadaş-ım$_i$
rp-GEN tomorrow come-NOM-3sg-ACC tell-DIK-1sg friend-1sg
"My friend who I said that he will come tomorrow."

leave the issue open here but see Üntak-Tarhan (2006) for an investigation of the adverb positioning in Turkish. The crucial point is that we do not have a well formed strategy for adjunction in language as Chomsky himself points out. Chomsky (2004) (cited in Boeckx 2008) proposes that adjuncts live in a separate plain, they cannot be probed. See also Uriagereka (2001).

[29] The grammaticality facts in the cases where resumptives occur with VP and TP level adverbs indicate that resumptives are more readily accepted when they precede VP and TP level adverbs *hızlı hızlı* (rapidly), *kesinlikle* (absolutely) than in the cases they follow them. This is in line with the subject resumptives data in section 3.1.4.1 in that resumptives must be higher than VP internal positions. However, there is an asymmetry between subject and object resumptives with respect to their positioning on the right of VP level adverbs. While object resumptives can occur following a VP level adverb though resumptives preceding the VP level adverb are better, subject resumptives which follow a VP level adverb do not even seem to be interpreted as resumptive, but as an emphatic pronoun. The asymmetry needs further investigation.

b. *Kendisi*$_i$ / *ec*$_i$ eskiden ben-i çok sev-en adam$_i$[30]
rp past I-ACC much love-REL man
"The man who loved me very much before."

(11a-b) show that resumptives occur in subject positions where they alternate with gaps. In (11a) the subject position of the most deeply embedded clause is filled by a resumptive element and the clause is embedded within a relative clause. In (11b) the gap in the highest subject position of the relative clause alternates with the resumptive *kendisi*.

3.1.3.4. Resumptives as Possessors

The last position we discuss with respect to the resumptives is the possessor position.[31] This is the only position where resumptives seem to be disallowed in Turkish. Consider (12a-b):

[30] Resumptives in highest subject position are less readily accepted compared to those in the embedded subject position. I will discuss this in the section on islands.

[31] Balkız Öztürk (p.c) notes that possessive structures and resumptives are similar in that both involve the third person possessive marker on the possessee. Consider (ia-d).

(i) a. Adam-ın araba-sın-ı gör-dü-m.
man-GEN car-3sg-ACC see-PAST-1sg
"I saw the man's car"

b. Araba-sın$_i$ -ı gör-düğ-üm adam$_i$
car-3sg-ACC see-DIK-1sg man
"The man whose car I saw"

c. Adam$_i$ -ın kendi-sin-i$_i$ gör-dü-m
man-GEN himself-ACC see-PAST-1sg
"I saw the man's himself"

d. *Kendi-sin*$_i$ *-i* gör-düğ-üm adam$_i$
rp-ACC see-DIK-1sg man
"The man I saw (him)"

In the relative clauses (ib) and (id) the possessor is extracted and the possessee which is left behind involves the third person possessive marker which is co-indexed with the head noun. This raises the question whether we are dealing with identical structures in (ia-d).

Despite the apparent similarity, structures in (ib) and (id) behave differently in certain contexts indicating that they are indeed different structures. Thus, they are of different linguistic objects. The first evidence comes with the following contrast brought to my attention by Balkız Öztürk (p.c):

(ii) a. ?*kendi-sin-i* çok sev-diğ-im sen
rp-ACC much love-DIK-1sg you
"You, I love (him) very much"

b. *araba-n-ı çok sev-diğ-im sen
car-2sg-ACC much love-DIK-1sg you
"You, whose car I love very much"

Note that the structure in (iia) is marginally acceptable but the one in (iib) is totally ungrammatical. This shows that when the head of the relative clause is the second person pronoun, the possessive marker can not be used in the resumption site, hence (iib) is ungrammatical. However, the resumptive element is available, as the marginal acceptability of (iia) shows.

Recall that the link between the second person pronoun in the head position and the second person possessive marker inside the relative clause is ungrammatical. However, when we substitute the second person possessive marker for the third person one, i.e. with *'-sIn'*, the structure turns out to be marginally acceptable as in the case of (iiia-b).

(iii) a. ?Araba-sın-ı çok sev-diğ-im sen
car-3sg-ACC much love-DIK-1sg you
"You, whose car I love very much"

b. Sevgi-sin-e her an ihtiyaç duy-duğ-um sen artık yok-sun.
love-3sg-DAT always need-DIK-1sg you anymore absent-2sg
"You, whose love I always need do not exist anymore."

In (iiia-b), *'-sIn'* is used in the resumption site and is co-indexed with the second person pronoun in the head position. The grammaticality of these structures indicates that we are dealing with a resumption structure formed by the special property of *'-sIn'* here, not a possessive construction. If it were a possessive construction, we would expect agreement to hold between the possessor and the possessee as in the case of regular possessive constructions. Another support for our claim comes with the following examples which have been brought to my attention by Aslı Göksel.

(iv) a. *Kendisin-i*$_i$ gör-düğ-üm adam$_i$
rp-ACC see-DIK-1sg man
"The man I saw (him)"

b. **Kendisin-i*$_i$ gör-me-diğ-im adam$_i$
rp-ACC see-NEG-DIK-1sg man
"The man I did not see (him)"

c. Araba-sın$_{i-ı}$ gör-düğ-üm adam$_i$
car-3sg-ACC see-DIK-1sg man
"The man whose car I saw"

d. Araba-sın$_{i-ı}$ gör-me-diğ-im adam$_i$
car-3sg-ACC see-NEG-DIK-1sg man
"The man whose car I did not see"

Note that (ivb) above involves the negative suffix on the relativized verb. While the structure in (iva) where there is no negative suffix is grammatical, (ivb) is not. Thus, there is an effect of the negative suffix on resumptive structures. The effect of negative suffix on the structure is absent in regular possessive constructions as shown by the corresponding grammaticality of (ivd). This shows that we indeed have different structures.

This also supports the claim that I will make in Section 3.2 that *'-sIn'* has a special function in resumption contexts. The third person possessive marker *'-sIn'* seems to be φ-defective in resumption contexts, a fact which might correspond to the anti-agreement property of resumptives offered in Boeckx's (2003a) study. I will discuss this issue in a more detailed way later in this chapter.
.

(12) a. *?*kendisi-nin*$_i$ / *ec* silgi-sin$_i$ -i al-dığ-ım öğrenci$_i$
rp-GEN eraser-3sg-ACC borrow-DIK-1sg student
"The student whose eraser I have borrowed."

b. *?[*kendisi-nin*$_i$ kol-u$_i$ kırıl-an] adam$_i$
rp-GEN arm-3sg break-REL man
Intended reading: "The man who (his) arm is broken."

Note that the use of the resumptive pronoun in (12a-b) is not licensed. The gap, on the other hand, is available in the corresponding position. I assume that the ban on resumptives in these contexts is related to the possessive morpheme present in resumptives. I will offer an explanation for the unavailability of the resumptive element when I discuss the internal structure of a resumptive in Section 3.2 where I argue that '*-sIn'* functions as resumptive in the structure. However, a remark on the issue would be the interpretive differences for the structure in (12a-b). I propose that it is the resumptive reading of the pronoun in (12a-b) which is not acceptable. However, for those who find the pronoun acceptable in this context, there may be a different reading based on focalization or emphasis.[32]

We have provided the syntactic environments in which resumptives occur in Turkish. Note that in some contexts resumptives are optional, and, in some others, they are obligatory. The optional nature of resumptives is a general property of languages such as Hebrew[33] and Irish where resumptives are productively used. This suggests that resumptives are not used to save otherwise ungrammatical structures; in other words, resumptives are not used merely to remedy long distance extractions or island violations.

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[32] Observe the following structure where *kendisi* + *topic particle dA* (also/too) occurs in the possessor position.

(i) Kaza-da *kendisi*-nin de kol-u kırıl-an adam
accident-LOC himself-GEN too arm-3sg broken-REL man
Intended reading: "The man whose (his) too arm is broken in the accident too"

The grammaticality of (i) shows that we are dealing with a different function of *kendisi*.

[33] The pro-drop nature of Hebrew is questionable in that there are some restrictions such as tense and person in cases where pro-drop is allowed (Borer 1984).

For the Turkish cases, we propose that the optional nature of resumptives is related to the argument drop characteristics of the language. Turkish is an argument drop language in that both subjects and objects can be dropped (Kornfilt 1984, Özsoy 1988 and Öztürk 2001). It is also true that the arguments in certain contexts must be dropped. Optional resumptives follow from this, in that the operator variable structure is formed via a pronominal element or a gap in the tail position. Hungarian resumptives show similar properties (Gervain 2003) and it is a property of pro-drop languages that they may allow null resumptives.

For the obligatory nature of resumptives, languages under investigation revealed that resumptives are obligatorily used in the position where the gap causes ungrammaticality. That is to say, resumptives are inserted to save the otherwise ungrammatical derivations. I will discuss the obligatory nature of resumptives in the section where we explain the licensing of resumptive chains.

3.1.4. Syntactic Nature of Resumptives in Turkish

With respect to the syntactic behavior of resumptives in Turkish, there are a number of facts indicating that resumptives are syntactic variables: (i) resumptives do not obey Highest Subject Restriction proposed by McCloskey (1990), (ii) resumptives exhibit strong crossover effects, and (iii) resumptives can be coordinated with traces. Below we discuss the first two points providing examples from Turkish:

3.1.4.1. Highest Subject Restriction

Highest Subject Restriction (HSR) which is repeated in (13) below bans the occurrence of resumptives in the subject position. HSR has been argued to be an extension of Condition B to A'- dependencies where it is required that the two positions in a dependency must be in a certain distance. That is to say, the pronominal element, i.e. the

resumptive must not be too close to its antecedent. The Irish example in (14) shows how HSR is operative in the language.

(13) *The Highest Subject Restriction*
A pronoun must be A'-free in the least complete functional complex containing the pronoun and a subject distinct from the pronoun.
McCloskey (1990:215) Example (44)

(14) * *an fear a raibh se breoite*
the man $COMP_{pro}$ was he ill
'The man that (he) was ill'
McCloskey (1990:214) Example (40a)

In (14) the resumptive occurs in the highest subject position, and the structure is ungrammatical. The "subject" in (13) is considered the NP governed by the INFL in McCloskey's argumentation. Thus, the example in (14) is ungrammatical since the minimal CFC that contains the pronoun *se* (he) and a subject, *an fear* (the man), distinct from the pronoun appears to be the higher clause in which the whole relative clause is embedded. In this way, the pronoun is not A'-free in its domain, i.e. the CFC is the whole clause. The antecedent can either be the head NP or an empty operator. Now, let us examine how the resumptives in embedded subject position are exempt from HSR. Observe the grammaticality of (15).

(15) *an fear ar dhuirt me go dtiocfadh se*
the man $COMP_{pro}$ said I COMP would-come he
'The man that I said (he) would come'
McCloskey (1990:214) Example (41)

In (15) the minimal CFC is the higher clause that contains the pronoun *se* (he) and a distinct subject *me* (I). However, the resumptive *se* is A'-free this time given that there is no potential antecedent for it, i.e. neither a head noun nor an empty operator.

We can consider this restriction on the resumptives as a diagnostic for the pronominal versus variable status of a resumptive element in that if resumptives are not

allowed in this position, they behave as regular pronominals do. Conversely, if they *can* occur in this position, they are not pronominal. Moreover, HSR is taken to be the A'-version of Condition B in a number of studies such as McCloskey (1990), Kornfilt (2000a) and Ulutaş (2006). Examples (16a-b) below indicate that resumptives in Turkish do not behave like pronominals.[34]

(16) a. *kendisi*$_i$ / *ec*$_i$ dün Ankara-dan gel-en adam$_i$
rp yesterday Ankara-ABL come-REL man
"The man who (he) came yesterday from Ankara"

b. *o_i dün Ankara-dan gel-en adam$_i$
he yesterday Ankara-ABL come-REL man
"The man who (he) came yesterday"

In (16b) a pronominal element occurs in the subject position of the relative clause and the structure is ungrammatical. This suggests that HSR is active for regular pronominals in relative clauses. However, when a resumptive occurs in the corresponding position as in (16a), no ungrammaticality arises. We propose that this contrast indicates the non-pronominal nature of the resumptive element.

Here, I would like to note that I do not actually take HSR as a diagnostic on the pronominal versus variable nature of a linguistic expression. In the following chapters, I will show that personal pronouns are not allowed in certain positions since they are A'-sensitive. In other words, they cannot occur in A'-environments where the operator is active for licensing purposes. Accordingly, for HSR cases I propose that availability of a resumptive element in the highest subject position speaks for variable licensing instead of pronominal anaphora which selects its antecedent from discourse.

[34] Note that the resumptives in the subject position of a *-(y)An* clause are less readily judged to be grammatical than those of *-DIK* clauses. This may be due to a cross-linguistic fact of resumptives in highest subject position since the same resumptives are also less common in Spanish, another non-HSR language, as reported by Suner (1998). See Öztürk (2008) for an analysis of *-(y)An* versus *-DIK* relativization in terms of subject positioning in relative clauses.

The discussion here requires us to clarify two points: (i) the position of the subject in Turkish, and (ii) the syntactic category of the complete functional complex. For the former, we assume that subjects in Turkish are licensed in Spec-AspP in relative clauses. However, VP-internal subject appears to be another option which needs discussion in this case. That is to say, resumptives might occur as VP-internal subjects and do not raise to higher Spec positions for case reasons as argued to be the case for the subjects in Öztürk (2005). Recall from Chapter 2 example (23) and footnote 10 that *kendisi* can occur as both preceding and following the VP level adverb *hızlı hızlı* (rapidly) or a temporal adverb *dün* (yesterday) in the sentence. That resumptives can follow a VP level adverb implies that the subject resumptive can occur as VP-internal subject. However, as I already observed, *kendisi* which follows a VP level adverb does not receive a resumptive interpretation, but an emphatic one. This shows that resumptives indeed are higher in the structure, possibly in Spec-TP/AspP position. I argue that this can be related to the fact that subject licensing is mediated by the C domain in Turkish as I will discuss in Chapter 6. Accordingly, the subject must be higher than VP internal Spec positions.[35]

This discussion above implies that subjects are not in the Theta domain of the verbs as claimed in Öztürk (2005). Thus, the resumptive element in the subject position comes too close to its antecedent and is expected to cause ungrammaticality, which is contrary to facts. For the latter issue, we assume that the complete functional complex for the resumptive, actually for other pronouns too is CP.[36]

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[35] That subject cannot be positioned VP internally in the case of resumptives might be due to some PF limitations for the subject pronunciation. I leave the issue for further investigations.

[36] (16a) in the text is judged to be ungrammatical by Kornfilt (2000a) and discussed as a violation of A'-Disjointness Requirement/HSR in a similar manner to Mc Closkey. The CFC of resumptives is a CP according to Kornfilt (2000a:128). The CFC for a pronoun is defined in (i) below:

(i) *Complete Functional Complex*: A'-governing category containing the pronoun, its governor and a distinct c-commanding subject.

That Turkish resumptives can be close to an A'-operator which is contrary to what HSR requires implies that resumptives show no anti-locality effects discussed in Grohmann (2003). Hendrick (2005:111) notes that resumptives in Tongan show no anti-locality effects either. We take this as another support for the variable nature of resumptives.

3.1.4.2. Condition C effects

This section provides evidence from Condition C effects for the claim that resumptives are variables. Condition C of Binding Theory requires that names and variables must be A- free (must lack a c-commanding antecedent in an argument position).[37] Resumptives in Turkish exhibit strong crossover effects[38, 39] when we apply the test proposed in McCloskey (1990):

According to (i) above, (ii) is predicted to be ungrammatical since the resumptive is not free in its A'-governing category which I assume to be CP.

(ii) *pro*$_k$ *kendisin-i*$_i$ gör-düğ-üm$_k$ adam$_i$
rp-ACC see-DIK-1sg man
"The man that I saw (him)"

The resumptive in (ii) is bound by the null operator in the C domain. However, if we assume that the CFC is AspP rather than CP, A'-Disjointness Requirement holds in (ii) above, since the pronoun has a *pro* subject within its CFC. Hence the pronoun is not bound in its A'-governing category. Kornfilt (2000a) takes CP as the CFC and notes that (ii) is ungrammatical.

However, AspP proposal is not adequate for resumptives in the subject position and one has to redefine the CFC for subject resumptives. Following this, we can argue that resumptives do not obey A'-Disjointness Requirement, a generalized version of Condition B of Binding Theory. This indicates that A'-Disjointness requirement can be subject to parametric variation cross-linguistically (Willis 2000:548). However, we have more to say about the distance requirement between the resumptive and its antecedent. In Chapter 6, I will argue that the left periphery of the clause is rich enough, i.e. the presence of an intermediary FinP between the resumptive and its antecedent, to create sufficient distance effect.

[37] Condition C effects are discussed as crossover phenomena and have received much attention in the literature, (cf. Chomsky 1981, 1982, McCloskey 1990, Shlonsky 1992 and Safir 1996). Crossover cases are treated as two distinct phenomena: (i) strong crossover and (ii) weak crossover. Strong crossover has first been discussed in Postal (1971) and assumed to be a universal principle; weak crossover, on the other hand, is subject to a wide range of cross-linguistic variation.

[38] McCloskey (1990) points out that structures that consist of an epithet c-commanding the resumptive give rise to strong crossover violations. Shlonsky (1992:460) applies the same test to Hebrew and Taghvaipour (2004) to Persian data. They both conclude that resumptives in these languages show strong crossover violations.

[39] The following example is discussed as a violation of strong crossover phenomena in Kornfilt (1984):

(17) a. *[[*salağ-a*$_i$ [öğretmen-in$_j$ *kendisin-i*$_i$ sınıfta bırak-tığ-ın$_j$-ı]
idiot-DAT teacher-GEN rp-ACC course-LOC flunk-DIK-3sg-ACC
söyle-diğ-im] öğrenci$_i$
tell DIK-1sg student
"The student$_i$ whom I informed the idiot$_i$ that the teacher flunked him$_i$

b. *[[*salağ-a*$_i$ [öğretmen-in$_j$ *t*$_i$ sınıfta bırak-tığ-ın$_j$-ı]
idiot-DAT teacher-GEN course-LOC flunk-DIK-3sg-ACC
söyle-diğ-im] öğrenci$_i$
tell DIK-1sg student
"The student$_i$ whom I informed the idiot$_i$ that the teacher flunked (him$_i$)"

In (17a) the resumptive element is co-indexed with and c-commanded by an epithet phrase in A- position, a typical Condition C violation (strong crossover) exhibited by the variables. Note that in (17b) the corresponding trace is also ungrammatical, a fact showing that resumptives and traces show similar behavior in Condition C contexts. We consider this ungrammaticality to be the consequence of the variable nature of both categories.

One might note that the ungrammaticality of (17a-b) has nothing to do with strong crossover violation hence cannot be used as evidence for the variable nature of resumptive. The offending element in these structures is not the resumptive pronoun or the Op-trace, but the co-indexation of an R-expression *salak* (the idiot) which must be free everywhere.[40] I propose that not all R-expressions behave in the same way. There is a class of R-expressions called "epithets" in the literature. "Epithets" are special in that they can be co-indexed with other R-expressions.[41] Consider (18).

(i) [*pro*^{k} *$_{*i / j}$ [t$_i$ [Ayşe'ye aşık ol-duğ-un]-u san-dığ-ı^k] o$_i$] adam$_i$
Ayşe-DAT fall in love-DIK-3sg-ACC think-DIK-3sg that man

Kornfilt (1984) argues that the example above is ungrammatical with j reading. She claims that the ungrammaticality of this example is due to a strong crossover violation. The c-command relationship between the variable and the null subject *pro* (which Kornfilt argues to behave as a regular pronoun in English) violates the Condition C of Binding Theory. Actually the empty category in the embedded subject position in (i) is a *pro* in the syntactic component of the grammar. But it is a resumptive *pro*. See Kornfilt (1984:16 ff. 7) for further discussion.

[40] I thank Aslı Göksel for pointing this out to me. However, note that not all R-Expressions behave in the same way as I discuss in the text above.

(18) Ali$_i$ gel-ecek-ti ama *salak*$_i$ yol-u kaybet-miş.
Ali come-FUT-PAST but idiot way-ACC lost-EVI
"Ali was going to come but the idiot lost his way"

Note that the example in (18) is grammatical, a fact suggesting that epithets are not true R-expressions. If they were, we would not have a grammatical sentence where the epithet *salak* (idiot) is bound by another R-expression *Ali*, the subject of the sentence.

The implication of being a variable in syntax is that resumptives are not distinct syntactic entities in numeration. That is to say, they are minimal copies of their antecedents or last resort devices entering into the derivation when an otherwise structure is blocked. We will discuss these implications in Section 3.4.

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[41] Epithets have first been discussed in Jackendoff (1972) within the generative literature. Lasnik (1989) notes that epithets are a class of NPs which behave like R-expressions on the one hand and like pronominals on the other hand. Huang (2000:47) notes that like pronominals, epithets (ii) can take antecedents from previous clauses, (ii) can participate in left dislocation, and (iii) they can not bind names. These are given in (ia-c) respectively. (ia-b) are from English and (ic) is from Chinese.

(i) a. John promised to come to Mary's wedding, but he/the idiot missed the train.
Huang (2000:47) Example (2.86a)

b. John, everyone thinks that he/the idiot should be demoted.
Huang (2000:47) Example (2.87a)

c. *Ta$_i$/zhe ge bendan$_i$ yiwei Xiaoming$_i$ zui congming
3SG/this CL idiot think Xiaoming most clever
"He / the idiot thinks that Xiaoming is the cleverest"
Huang (2000:47) Example (2.88a)

Following these facts, Lasnik proposes a new binary feature for Binding Theory, [+/- referential] besides [+/- anaphor] and [+/- pronominal] features, to distinguish between pure R-expressions like names and pronominal R-expressions like epithets.

Moreover, Hornstein and Weinberg (1990) note that epithets (i) can act as bound variables, and (ii) can license sloppy interpretations under VP-ellipsis. These two facts make epithets more like pronominals which can receive bound variable interpretation under certain contexts rather than names. These facts are exemplified in (iia-b) respectively:

(ii) a. John criticized every mayor in private while praising him/the idiot in public.
Huang (2000:48) Example (2.89)

b. Every boxer's wife adores him / the idiot, and every wrestler's girlfriend does, too.
Huang (2000:48) Example (2.90)

Aoun and Choueiri (2000:2) define epithets as definite DPs which contribute mainly affective meaning, typically negative: anger, contempt, irony. They differ from R-expressions in that they can follow a demonstrative pronoun and precede a proper name as noted in Milner (1978) (cited in Aoun and Choueiri (2000:3). Aoun and Choueiri (2000) propose that epithets in Lebanese Arabic are not intrinsically pronominal elements. Their pronominal behavior is due to the anaphoric pronominal element which occurs with those epithets. They also argue that epithets can be used as resumptive and bound variable only when they appear with a pronominal morpheme used anaphorically.

3.1.5. The Semantics of Resumptives in Turkish

In the previous section, I have shown that Turkish resumptives are of variable nature with respect to their syntactic properties. This section however reveals that Turkish data seem to present evidence for the pronominal status of the resumptive element as well as its syntactic status. With respect to the semantic interpretation of resumptives, the important fact is that resumptives do not support "multiple individual" and "de dicto" readings. Recall from Chapter 2 that "multiple individual reading" denotes the association of a pronoun with more than one person/entity and "de dicto" reading denotes the association of a pronoun with a non-specific entity in the world when there is a quantificational subject in the structure. These readings are associated with a variable given that the set of individuals denoted by a syntactic variable varies, unlike that of a pronominal which does not do so. The example in (19) below illustrates this pattern respectively:

(19) Ahmet-in *kendisin-i*$_i$ / *ec*$_i$ ara-dığ-ı adam$_i$
Ahmet-GEN rp-ACC look.for-DIK-3sg man
"The man Ahmet is looking for (him)"
Resumptive: De Dicto reading: No ec=trace: De Dicto reading: Yes
De Re reading: Yes De Re reading: Yes

(19) indicates a contrast between traces and corresponding resumptives in that only the former support "de dicto" reading, a fact noted in Sharvit (1999) for Hebrew resumptives. In other words, when there is a resumptive element in the structure, the head noun is interpreted as a specific person that Ahmet is looking for, i.e. a specific entity in the world (de re reading). However, when there is a gap instead of the resumptive, the head noun can receive a reading where there is no specific person is associated with the head noun (De dicto reading). Note that this fact is considered the specificity effect resumptives show in some languages and this specificity effect goes with the pronominal nature of the resumptives. Based on these facts, we will raise the

question whether specificity effects resumptives induce in Turkish seem to have implications on the mechanism which licenses them. That is to say, having specificity effects implies that resumptives have a semantic content. In other words, resumptives contribute to the semantic interpretation of the structures they are involved in. This means that resumptives are distinct grammatical entities, i.e. they are interpreted with their semantic content at SEM rather than being solely dependent on their antecedents. A result of this fact is that resumptives cannot be treated as minimal copies of their antecedents. In other words, resumptives are distinct entities in the numeration.

3.2. Decomposition of Resumptives

We have observed in the first section of this chapter that regular personal pronouns and resumptive pronouns differ with respect to their occurrence within the relative clauses. While resumptives occur in headed or headless relative clauses, regular pronouns can not. Departing from this initial fact, this section provides a discussion on the morphological make-up of pronominals in Turkish and its implications on the data. Basically, we decompose a resumptive element *kendisi*[42] into two parts: *kendi* (self) and '-

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[42] Ergin (1997:272-3) notes prescriptively that the reflexive use of *kendi* is not grammatical in that it should have been *kendi+si* since the third person possessive marker has to be used in reflexive use as in the forms *kendi+m* (myself), *kendi+n* (yourself). He considers *kendi* as a noun which means *self* and originally derived from the form *kendü*. This view finds support when we consider the other form with the similar function, *öz* (self) in Old Anatolian Turkish which has the following paradigm:

(i)
a. öz-im myself	d. öz-ümüz ourselves
b. öz-ün yourself	e. öz-ünüz yourselves
c. öz-i him/herself	f. öz-ler-i themselves

Note that the third person reflexive form in the paradigm in (ia-f) is *özi* (öz + third person possessive marker) but not *öz* (bare noun). Moreover, Erdal (2004:209) notes that *öz* has become the pronoun self already in Orkhon Turkic, i.e. long before the Old Anatolian Turkish period.

However, the word *öz* is not used for pronominal or reflexive purposes in Modern Standard Turkish. In the early republican period, the language purification studies offered some words which are derived via suffixation to the form *öz* such as *öz-ge*, (except), *öz-gü* (unique) (see Levend, 1960 for a detailed

sIn[43] (3rd sg.). We propose that this partition explains at least three important facts observed in Turkish: (i) regular pronouns can not occur resumptively, (ii) postpositions having an NP structure allow gaps alongside the resumptives as their complement, and (ii) resumptives have dual nature with respect to their pronominal vs. variable status.

3.2.1. Resumptives and [kendi[+]sI] Partition

As I have already pointed out, resumptive material in languages is usually personal pronouns or pronominal clitics. Turkish differs from other languages in this respect by employing a complex expression for resumptive purposes. However, this complex expression is not reserved for only resumptive purposes. In Chapter 4, the different usages of *kendisi* will be discussed. McCloskey (2005) points out that no language has a special morphological form which is devoted to resumptive purposes.

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discussion). Also, the form is used to derive compounds such as *öz erk* (autonomic) and *öz denetim* (auto-control). This implies that the form *öz* is offered to correspond to the Greek prefix {*auto-*}.

Note also that the form *kendi* has also been observed in the earliest dictionary of the Turkish language *Diwan u Lugat al- Turk* written by Mahmud Al-Kashkari. However, the form *öz* has been more frequently noted in *Diwan u Lugat al- Turk* for reflexive purposes. The fact that *öz* is more frequently used than *kendi* is also noted in Clauson (1972:728).

Clauson (1972:728) lists the form as *kentü* and notes that it occurs in the earliest texts as *kentü*, in Xakani texts as *kendü* and in Turkish Turfantexts as *kendü*. It is often used in a compound form with *öz* in Southwestern dialects. This implies that *kendisi* is a derived form from two separate words: *kendü* + *öz*. Clauson (1972:728-729) also notes that *köndözüm* (I myself) is present in Xwarazmian dialect. *Kendözi* is noted as a common form from the fourteenth to the sixteenth centuries. Clauson (1972:729) also notes that the form is used as an emphatic pronoun in the fourteenth century Kıpchak dialect.

Erdal (2004:208-210) notes that *käntü* in Old Turkic is inflected with genitive *käntü-nüŋ*, dative *käntü-kä*, accusative *käntün-i*, instrumental *käntü-n* case markers. He further notes that alongside the verb heads, *käntü* can also be governed by postpositional heads, and can be used for attributive and for adverbial functions.

[43] {*-sIn*} in Turkish is the third person possessive morpheme. It attaches to noun roots to express possession, to the second noun in [N+N] structures to mark the structure as compound, and to nominalized embedded verbs to express the subject.

Morphologically, {*-sIn*} is a composite of a buffer sound [s] which occurs after the nominals ending in a vowel except two monosyllabic words *su* (water) and *ne* (what), a vowel [*I*] varying between [ı, i, u, ü] in accordance with both palatal and labial harmony, and [n]. Ergin (1997:225) considers this [n] sound as a buffer sound which is active since the old periods of the language. The morpheme has been observed in Orkhun Manuscripts in the same form (Tekin 1988 and Şubaşı-Uzun (1995:51)). Erdal (2004:160-2) represents *'-sIn'* as -(s)I(n) and notes that [n] is absent in nominative inflected forms. The pronominal [n] part is lost in South Eastern Turkic from the Middle Turkic Period on. Ergin (1997:14) also notes that [n] sound is absent in Chagatay period of Turkish which can be considered as the predecessor of Modern Uzbek. Aslı Göksel (p.c) notes that [n] can be considered as a classifier given that it only occurs after pronouns in cases of further case suffixation. Aslı Göksel further notes that [n] is the part of *kendi* rather than *'-sIn'* given that *kendi-yi* is not a grammatical form. Following this suggestion, I take *'-sIn'* as *'-sI'* from now on. However, the ungrammatical form *kendi-n-si* needs further investigation.

I propose that a resumptive element in Turkish has two parts: the nominal base part and the minimal copy part. The base part is pronounced as *kendi*[44] and the minimal copy part is pronounced as third person possessive marker *'-sI'*. That is, a resumptive pronoun in Turkish is a composite of *kendi* and a third person possessive marker.

I propose that it is the '-sI' part that I consider as the minimal copy of its antecedent, which is responsible for resumption in Turkish. The base part *kendi* merely functions as a nominal base for the bound form *'-sI'*. This partition predicts that the base part is never used as a resumptive in relative clauses although it is interpreted as coreferential with the head noun. In fact, this prediction is borne out. Consider (20a-c).

(20) a. Adam$_i$ *kendin*-i$_i$ traş et-ti
man himself-ACC shave-PAST
"The man$_i$ shaved himself$_i$"

b. *Kendin*-i$_i$ traş ed-en adam$_i$
himself-ACC shave-REL man
"The man$_i$ who shaved himself$_i$"

c. *Adam$_i$ *on*-u$_i$ traş et-ti
man he-ACC shave-PAST
"*The man$_i$ shaved him$_i$"

d. **On*-u$_i$ traş eden adam$_i$
he-ACC shave-REL man
"*The man$_i$ who shaved him$_i$"

When used alone, *kendi* basically acts as a reflexive pronoun in relative clauses as exemplified in (20b). Note that the structure is an example of subject relativization and the resumptive pronoun is expected to occur in the subject position. However, *kendi* occurs as the complement position of the verb where it forms a chain with its antecedent. I will discuss the licensing of this reflexive pronoun inside a relative clause in Chapter 5 given that licensing of reflexives and resumptives might follow from

[44] *kendi* in this context is labeled as the nominal base, but it should be noted that kendi itself carries a third person possessive marker. However, throughout the discussion I will consider *kendi* as a nominal base for *'-sI'*.

similar Operator-variable chains. The ungrammaticality of (20c) indicates that the use of personal pronoun in an anaphoric chain is not possible. I propose that this explains the difference between a resumptive and a regular personal pronoun in Turkish. Since the resumptive pronoun is a composite of the form *kendi* and the third person singular possessive marker, it can occur in an A'- chain. Regular personal pronouns, on the other hand, are true pronominals and can not be embedded under the restriction of an Operator.

The second evidence for the partition I propose comes with the unavailability of *kendi* in resumptive contexts, i.e. it cannot occur where a resumptive pronoun is expected. Consider (21a-b).

(21) a. *Kendisin*-i$_i$ gör-düğ-üm adam$_i$
rp-ACC see-DIK-1sg man
"The man that I saw (him)"

b. **Kendin*-i$_i$ gör-düğ-üm adam$_i$
himself-ACC see-DIK-1sg man
"The man that I saw (him)"

(21b) shows that the use of *kendi* without the possessive marker *'-sI'* is not grammatical. We assume that the form *kendi* alone is not sufficient for resumption purposes due to the lack of *'-sI'* which, in a true resumptive context, maps the dependency to an A'-position. I consider the unavailability of the form *kendi* with a resumptive interpretation as evidence for the partition I offer for the morphological make-up of a resumptive pronoun in Turkish, but the detailed discussion waits for the Chapter 5.

The third evidence for the resumptive use of '*-sI*' comes with possessor extraction facts in Turkish. Consider (22) where the head of the relative clause is interpreted with the empty position corresponding to the possessor.

(22) Silgi-*sin*$_i$-i ödünç al-dığ-ım öğrenci$_i$
eraser-3sg-ACC borrow-DIK-1sg student
"The student whose eraser I have borrowed"

Note that the possessive marker is interpreted with the head noun in (22). I argue that *'-sI'* in this example can be considered as establishing a dependency chain between the possessor position, i.e. the extraction domain, and the empty operator in the C domain of the clause. This implies that the possessive marker *'-sI'* in (22) is the same possessor marker used in resumptive contexts. That is to say, *'-sI'* acts as resumptive in (22) where it resumes the antecedent. This is indeed the case when we consider the ungrammatical example in (23) with the resumptive reading.

(23) *?Kendi-*sin*-in silgi-*sin*-i ödünç aldığım öğrenci
rp-GEN eraser-sIn-ACC borrow-DIK-1sg student
"The student whose eraser I have borrowed."

The ungrammaticality of (23) with *kendisi-nin* as having resumptive interpretation can only be explained if we assume that *'-sI'* is used with resumptive function in (23). That is to say, the double use of *'-sI'* in a relative clause as resumptive is not allowed, hence ungrammaticality.

Note that the possessor position is the only position in which resumptives are banned. We propose that the presence of the possessive marker on the possessee makes the use of resumptive illicit since the resumptive has the possessive marker already. In other words, given that the dependency in relative clauses is formed via the possessive marker, the double use of it is blocked.

The discussion so far has implications on the data. First, we can explain the two types of postpositional structures in Turkish. Bare postpositions do not allow their complements to occur as gaps, hence resumptives are obligatory in this position. Relevant examples are repeated here:

(25)[45] a. *ec_i göre hasta ol-duğ-um adam$_i$
according to ill be-DIK-1sg man
"The man according to whom I am ill"

b. ec_i hakkında çok şey bil-diğ-im adam$_i$
about much thing know-DIK-1sg man
"The man about whom I know a lot"

Bare postpositions which do not involve a possessive marker in (25a) do not allow their complement not to be pronounced, hence the ungrammaticality. (25b), on the other hand, is grammatical since the postposition involves a possessive marker. We assume that this difference follows from our proposal regarding the status of the possessive marker in relative clauses. That is, *'-sI'* functions as establishing a variable chain in relative clauses. Without it, the structure is not licensed as an A'-structure and the head cannot be interpreted under the restriction of the Operator. In the absence of '*-sI*', a resumptive pronoun which already has '*-sI*' has to be used. Thus, postpositions without '*-sI*' are not allowed to drop their complements in relative clauses. However, a problem arises given the following example where the *'-sI'* in a postpositional construction allows a resumptive pronoun as its complement. This means that the double presence of *'-sI'* is allowed. Consider (26).

(26) *kendisi*$_i$ hakk*ın*da çok şey bil-diğ-im adam$_i$
rp about much thing know-DIK-1sg man
"The man about whom I know a lot"

Recall that the double instances of *'-sI'* is not allowed in possessive extraction cases. What makes the structure in (26) different from the possessor extraction cases needs an explanation. I propose that the two instances of '*-sI*' in (26) occur in different syntactic categories in that one occurs in the P head and the other in NP complement. I propose that *kendisi* is licensed as an adjunct of the Poss head *'-sI'* in these structures. Occurring

[45] Note that some native speakers hold that the personal pronoun *o* (s/he) with the genitive marker can be acceptable in the position of resumptive in these structures. I propose that this marginal acceptability of the personal pronoun might be due to an interpretational difference, which needs further investigation.

in an adjunct, *'-sI'* does not participate in the operator variable chain. Hence, no problem arises from the double occurrence of *'-sI'* in (26). However, the issue needs further investigation.

We argue following this discussion that the possessive marker '*-sI*' in a resumptive pronoun stands as the minimal copy of its antecedent. Following Pesetsky (1998) and Bianchi (1998), I point out that the specificity effects shown by resumptives are a result of the property of the chain in which resumptives occur rather than the resumptive pronoun itself. This raises the question why specificity effects are observed specifically with object resumptives. It might also be the case that the specificity effects come with the accusative marking on the resumptive pronoun (cf. Fox 1994).

Another distributional fact regarding resumptives is that they can only occur in relative clauses in Turkish, constituent questions being excluded. We assume that this follows from the sensitivity of resumptives to movement dependencies. In other words, resumptives occur where movement takes place. Since wh-questions do not involve overt movement in Turkish (Akar 1990, Özsoy 1996), resumptives are not used in these structures.

3.3. Licensing of Resumptive Chains

This section offers a movement based model for resumption in Turkish, of the sort which is introduced by Boeckx (2003a, 2008). The presence of movement is based on the fact that resumption involves scope reconstruction in that scope reconstruction provides evidence that the antecedent of the resumptive originates inside the island. The fact that resumption can occur in island contexts, a fact which speaks for the non-applicability of a movement strategy, is explained with a different view of island constraints, given that resumption in island contexts involves scope reconstruction in the sense of Salzmann (2006). Aoun et. al. (2001) notes that in the presence of a

resumptive element inside the island, no reconstruction is observed in relative clauses. However, languages vary with respect to the availability of reconstruction into islands. Guilliot and Malkawi (2006) points out that reconstruction in the presence of a resumptive element is available in Jordanian Arabic. Moreover, resumption in Turkish involves resumptive material which exhibits characteristics of A'-traces such as Condition C effects, coordination with traces etc. I propose following Sells (1984) that the variable nature of the resumptives is directly linked to the operator-variable chains they occur in.

3.3.1. Resumption Involves Movement

This section argues that resumption involves movement. The evidence comes with the scope reconstruction data.[46] Consider the examples in (27a-b).

(27) a. [Her doktor-un [*ec*$_i$] muayene et-tiğ-i] iki hasta$_i$
every doctor-GEN examine-DIK-3sg two patient
"Two patients that every doctor examined"
[every doctor] > [two patients], [two patients] > [every doctor]

b. [Her doktor-un *kendisin*-i$_i$ muayene et-tiğ-i] iki hasta$_i$
every doctor-GEN rp-ACC examine-DIK-3sg two patient
"Two patients that every doctor examined (him)"
[every doctor] > [two patients], [two patients] > [every doctor]

In (27a) the relativization position is filled by a gap and in (27b) by a resumptive. In both cases, there is an ambiguity with respect to the scope relations of the two quantifiers. In the first reading, the universal quantifier *her doktor* (every doctor) scopes over *iki hasta* (two patients), i.e., each set of two patients is examined by a doctor, and in the second reading *iki hasta* (two patients) scopes over *her doktor* (every doctor), i.e. there are two patients and all the doctors have examined them. Note that these examples are used to support the head raising in relative clauses. However, I propose that scope

[46] See however, Bianchi (2008) for an opposite view. She argues that reconstruction does not provide a compelling evidence for a movement analysis of resumption.

reconstruction in these cases can be derived via operator raising given that the empty operator in the C domain relates the head noun to the relativization position. In other words, there is no reason for not interpreting head noun inside the clause via the Operator.

Salzmann (2006) points out that scope reconstruction into islands is another case to determine whether the structure involves movement. Given that island sensitivity speaks for a movement construction in generative literature, structures that are insensitive to islands are considered to be derived via base generation rather than movement. However, as Salzmann (2006) points out, this will not be a valid argument in the availability of scope reconstruction into islands.

(i) Adjunct islands

Let us check whether Turkish allows scope reconstruction into an adjunct island. For the time being, let us assume that adjunct clauses are possible candidates for islands in Turkish, but see the discussion in Section 3.4.5. Examples (28a-b) below contrast the gap and the corresponding resumptive with respect to the availability of reconstruction.

(28) a. [Her polis-in[$ec_{subject}$ *ec*$_{i\ object}$ gör-ünce] merkez-e bildir-eceğ-i]
every policeman-GEN see-when police.station-DAT report-NOM-3sg
iki şüpheli$_i$
two suspect
"Two suspects that every policeman will report to the office when he recognizes."

b. [Her polis-in [$ec_{subject}$ *kendisin*-i$_i$ gör-ünce] merkez-e bildir-eceğ-i]
every policeman-GEN rp-ACC see-when police.station-DAT report-NOM-3sg
iki şüpheli$_i$
two suspect
"Two suspects that every policeman will report to the office when he recognizes."
'two suspects' > 'every policeman', 'every policeman' > 'two suspects'

In (28a-b) there is a quantifier expression in the subject position of the relative clause, *her polis* (every police officer). The head noun *iki şüpheli* (two suspects) is also a quantifier expression which is interpreted with the empty position inside the adjunct clause. Note that the adjunct clause is embedded under the relative clause, hence an adjunct island for the extraction of the empty operator. The grammaticality of this structure indicates two contradictory properties: (i) the adjunct clause does not seem to behave like an island, hence no movement is involved, (ii) the availability of scope reconstruction, i.e. wide scope reading of either quantifier expression is possible, hence movement is involved. I take the second conclusion and explain the island insensitivity in the next section. What is crucial at this point is that reconstruction due to scope reasons is available inside the island.

(ii) Wh-island

I take scope reconstruction into a wh-island as another testing ground for the presence of movement. Consider the examples in (29a-b) below where once again I compare the gap and the resumptive pronoun in the same position.

(29) a. Her doktor-un [*ec*$_i$ ne zaman muayene et-tiğ-in]-i yaz-dığ-ı
every doctor-GEN when examine-DIK-NOM-3sg-ACC note-DIK-3sg
iki hasta$_i$
two patient
"Two patients that every doctor noted when s/he examined"

b. Her doktor-un [*kendisin/lerin*-i$_i$[47] ne zaman muayene et-tiğ-in]-i
every doctor-GEN rp-ACC when examine-DIK-3sg-ACC
yaz-dığ-ı iki hasta$_i$
note-DIK-3sg two patient
"Two patients that every doctor noted when s/he examined him/them"
'two patients' > 'every doctor', 'every doctor' > 'two patients'

[47] Note that there is a dialect split in for the singular versus plural use of the resumptive pronoun in these contexts. Dialect A prefers the plural use of the resumptive, whereas the Dialect B prefers its singular use. Note that the dialect split case does not affect the analysis provided here.

In (29a-b) the complement position of the wh-island is filled by a gap and a corresponding resumptive pronoun. Note that the wh-clause is embedded under a relative clause. In both cases, reconstruction of the head noun into the wh-clause is available since both structures are ambiguous. I take this fact as additional support for the possibility of movement in resumptive chains.

(iii) Complex NP island

The last case I discuss for the scope reconstruction is the complex NP islands. In this case the gap position filled by a resumptive element is inside a relative clause which is embedded in another relative clause. If reconstruction is involved in these structures, once again we conclude that resumptive chains involve movement. Consider (30).

(30) Her doktor-un [*ec$_i$ / *kendisin/lerin*-i$_i$ hastane-ye getir-en] adam-ı$_i$
every doctor-GEN rp-ACC hospital- DAT bring-REL man-ACC
tanı-dığ-ı iki hasta$_k$
know-DIK-3sg two patient
"Two patients that every doctor knows the man who took them to the hospital."
'two patients' > 'every doctor', 'every doctor' > 'two patients'

In (30) the resumptive element is inside the relative clause which is embedded under another one. The resumptive pronoun is interpreted with the head noun which is a quantified expression. Note that the wide scope reading of the universal quantifier in this structure is available. In this reading, there are doctors in the emergency rooms and ambulance officials who take the two patients to the emergency rooms. The doctor in the emergency room X knows the ambulance official A who takes the two patients [α-β] to the emergency room. The doctor in the emergency room Y knows the ambulance official B who takes the two patients [γ-δ] to the emergency room. Assume that the doctors and the ambulance officials have to know each other for the security reasons put forth by the sets of two patients. This reading requires the head noun to reconstruct

back to the most deeply embedded relative clause via reconstruction. I take this fact as additional support for the movement of the empty operator in relative clauses.

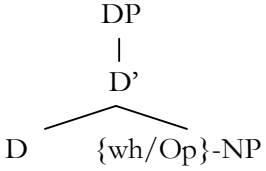
The fact that licensing of resumptives involves movement can be considered counter-evidence for the base generation approaches to resumption. Due to this fact, I eliminate base generation approaches such as Chomsky (1982), McCloskey (1990) and Rouveret (2002) given that base generation cannot account for the reconstruction facts. Recall from Chapter 2 that there are three movement based approaches to resumption: (i) LF movement (Demirdache 1991), (ii) PF spell out approach (Pesetsky 1998), and (iii) Big DP approach (Boeckx 2003a). The crucial point here is on what ground other movement approaches are eliminated. I propose that first two approaches cannot account for the facts observed in Turkish.

Boeckx's (2003a) Big DP approach fits best to the facts in our data. I propose that the crucial point about his analysis is that it predicts resumptives in non-island cases, i.e. simple relative clauses and the saving device characteristics of resumptives. However, I show that Big-DP approach suffers from problems too. I will discuss these problems later in the chapter. Now, let us introduce Boeckx's system.

3.3.2. Boeckx's Stranding Analysis of Resumption

In this section, I introduce the basic concepts of the stranding analysis of resumption offered by Boeckx (2003a, 2008) and discuss the core properties of the issue in order to see how the system provides explanation for various phenomena related to resumption. Boeckx proposes that resumptives have the following internal structure.

(31)

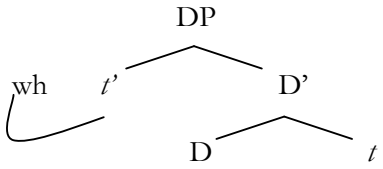


Boeckx (2003a:28) Example (31)

The DP structure in (31) involves the antecedent of the resumptive as its complement. In other words, the resumptive is a D head which takes its antecedent, the Op or head NP, as its complement. They enter into the derivation as a single constituent upon first merge and then split. This split results in resumption.

Boeckx (2003a) proposes that the complement of the resumptive pronoun upon the first merge moves cyclically to its final site. The movement occurs via the spec-DP as shown in (32) below.

(32)



Boeckx (2003a:38) Example (65)

In (32) the wh-item or the empty operator moves first to the Spec position of the DP then to its final site cyclically. Note that this sort of left branch extraction such as possessor raising is not problematic in Boeckx's (2003a) system (see references therein) and is actually supported by a number of independent phenomena such as non-agreement. Non-agreement stands for the lack of full agreement between the pronoun and its antecedent (between the C head and the resumptive in the present case) in terms of φ-features and case. Boeckx indicates that non-agreement is a shared property of resumption, left branch extraction and clitic doubling phenomena. In (32) the resumptive strands after the movement of the wh-/Op element into the higher positions.

Boeckx analyzes resumption as a chain formation strategy where the chain is formed via [Match + Move] operations. Match stands for a matching between a Probe and a Goal and is taken to be free, i.e. it applies without a condition imposed on it. As in the case of Move, Match applies in the c-command domain of a probe, and it must

target the closest matching-element, a goal. Agree is subject to the same conditions. However, there is one further requirement on Agree: it involves φ-feature agreement. According to Boeckx, the involvement of Agree in chains results in another type of chain formation strategy: [Match + Agree + Move]. The lack of Agree is crucial in that the former type (resumptive chain) is insensitive to island constraints while the latter type is subject to island constraints on movement. Note that Boeckx relates the non-agreement in resumptive contexts to the lack of Agree on chains.

For the gap vs. resumptive alternation, Boeckx argues that resumption occurs when there is no Agree between the probe and the goal. Within the domains accessible to Agree (weak islands) the two options are available. This goes with the optionality of resumptives. Let us now see how the system offered by Boeckx predicts the obligatory nature of resumptives. Obligatory resumption occurs where there are more than one EPP feature to be satisfied. This implies that an A'-moving element moves through an A position with an EPP property, hence excludes the adjuncts altogether (i.e. there would be no true adjunct resumptives).

Pre/postpositional objects in many languages are not allowed to occur as gaps while resumptives are not offending in the corresponding position. Gaps are illicit since the Op which is merged as the complement of the P head case checks with P first, and then moves to the higher position, say Spec-CP. This creates an ambiguous chain in Boeckx's system, i.e. violates Principle of Unambiguous Chains (PUC) which is given as (33).

(33) *Principle of Unambiguous Chains*
A chain is unambiguous if it contains at most one strong occurrence (S-OCC); i.e. EPP-position (Strong positions are indicated with '*').
Boeckx (2003a:13)

The gaps in the complement position of a preposition violate PUC given that there are two strong occurrences (S-OCC) in the chain: C* and P*. Resumptives, on the other hand, are not offending in these positions given that it is the resumptive which checks case with P head and forms a chain. Its antecedent, the OP, moves to a higher position and forms another chain. Hence, there are two chains and there is only one strong occurrence in a single chain. This is given in (34).

(34) [[C* [… [PP P* [D [NP]]]]]] (P* = structural case)
Match
Agree

Boeckx (2003a:80) Example (38)

According to (34), first the resumptive D checks case with P head and forms a chain. This chain is formed via Agree and contains only one strong occurrence, P*. Second, C head forms a chain with the complement of the resumptive, NP or Op/-wh. This chain is created via Match and contains only one strong occurrence, C*. The obligatory resumption is nothing but splitting the resumptive into two, each of which forms an unambiguous chain.

After introducing the system offered by Boeckx, let us discuss the proposal I made for the licensing of resumptives.

3.4. Proposal: Resumption as a Form of A'- Dependency

In this section, we propose a resumption mechanism which explains the facts we observed so far. Before going into the details, I would like to make one point: Turkish does not implement a resumptive strategy on a par with Semitic languages such as Arabic or Hebrew.[48]

[48] I intend to point out here that languages such as Hebrew and Arabic make use of resumption as a productive strategy for A'- extractions. Turkish, on the other hand, employs resumption only in relative clauses as I have pointed out in Chapter 1 and 2. Moreover, in simplex relativizations, gap strategy is preferred over resumption strategy. At this point, it is possible to note that in pre-Islamic period (from

eighteenth to eleventh centuries), it seems to be the case that there was no resumptive use of a special form in the language although referential use (reflexive and emphasis purposes) of the same forms have been noted in Şubaşı-Uzun (1995:41). In Orkhun Manuscripts (the seventh century) as depicted in Tekin (1988), Tekin and Ölmez (1999) and Erdal (2004), I have not come across any resumptive use of the forms *kendi*, *öz* or *kendözi* or their reverse form *öz käntün* (observed in Erdal 2004:209 for its reflexive function). Possibly, resumption started as a translation imposed strategy in Turkish. Especially, translations from Arabic and Persian which use resumption as a basic strategy for A'- dependencies affected Turkish to have resumption. The support for this comes with the data from *Tarama Sözlüğü* of TDK (Turkish Language Association).

Tarama Sözlüğü consists of lexical forms which have been observed in the literary works from the thirteenth century to present. Forms such as *kendü* and *kendözi* are observed within the relative clauses in these texts. Before discussing the examples, I have to clarify one point. Relativization strategies, i.e. *-DIK* and *-(y)An* strategies, of the sort present in Modern Standard Turkish do not seem to be productively used in the written texts of earlier periods though relative clauses formed with *-GAN* participle are frequent. Instead, *ki structures* where a fully finite clause is dominated by a complementizer *ki* are used. Note that this structure is borrowed from Persian and the modified head precedes the relative clause.

First of all, *kendözü* which occurs in the complement position of the relativized verb is used with reflexive function. (i) below illustrates this.

(i) Kendözüŋ$_i$-e koyur-a-ma-duğ-un öğüd-ü ayruk-lar-a ver-me$_i$.
yourself-DAT keep-NEG.ABIL-NEG-DIK-2sg advice-ACC other-PL-DAT give-NEG-2sg
"Do not give the advice that you cannot take for yourself."
Tuhfet al-Letaif, 226, the fifteenth century, Example from Tarama Sözlüğü (1996:2414)

The second type of structure involves *kendözün* appears in the complement position of the relative clause (*ki* clause) and is co-indexed with the head noun which is external to the *ki clause*. This structure is exemplified in (ii).

(ii) Toprak ol kutsuz$_i$-un baş-ın-a [kim padişah dergah-ın-da kendözin$_i$ toprak eyle-me-ye].
soil that unlucky-GEN head-3sg-DAT that sultan room-3sg-DAT himself soil make-NEG-OPT
"Damn to that unlucky (person) who does not make himself down to earth in the sultan's room."
Tuhfet al-Letaif, 168, the fifteenth century, Example from Tarama sözlüğü (1996:2414)

In (ii) *kendözün* is used as a resumptive pronoun given that it is co-indexed with the head noun. The third type of structure involves a clause which I assume to be a reduced relative. The reduced relative clause involves *-mAz* as a relativization morpheme which is attached to the verb root. The form *kendüzin* appears in the complement position and there is no overt noun head. That is why the dative case marker coming with the higher verb appears on the participle form.

(iii) Özün-ü bir şahs-a teslim eyle-me, kendüzin$_i$ bil-mez$_i$-e ta'zim eyle-me
yourself-ACC a person-DAT give-NEG himself know-REL-DAT respect make-NEG
"Do not give your soul to stranger, do not respect for (someone) who is not aware of himself."
Diwan of Ruşeni, 302, the fifteenth century, Example from Tarama sözlüğü (1996:2416)

In the last type, *kendü* and *kendüleri* are used inside the *ki clause* and are co-indexed with the head noun. These structures are exemplified in (iva-d). In these cases, *kendü* appears with the reflexive function in that they are co-indexed with the subject of the *ki clause*.

(iv) a. Her kim$_i$ kendü-den$_i$ ulu-ya izzet et-me-se ve kendü-den$_i$ kiçi-ye
anybody himself-ABL older-DAT respect make-NEG-CON and himself-ABL younger-DAT
bak-ıp esirge-me-se ol kişi$_i$ biz-den değil-dir.
protect-NEG-CON that person we-ABL not-FACT
"Anybody who is not respectful for those who are older than himself and protect those who are younger than himself is not one of us."
Miftah al- Cenne, 327, the fifteenth century, Example from Tarama sözlüğü (1996:2423)

3.4.1. Resumptive Material

The material used as resumptive in Turkish is the special form *kendisi*. The earlier written sources have *kendi* and *öz* as the reflexive forms in the grammar of Turkish. It is a possibility that *kendisi* is the combination of [kendi+öz+i] given that the combination is attested after the eighth century (see footnote 42, 43 and 48). Thus, one might think that [kendi+sIn] (self+3rd singular) partition does not seem to be what happened diachronically in Turkish. However, [kendü+özi] form actually carries a 3rd singular possessive morpheme as [kendi+öz+i] (self-own-3rd singular).

It is possible that *kendisi* is a special form that Turkish developed in order to combine deictic the pronominal use, anaphoric use and resumptive use of an expression into one. It combines the different requirements imposed by the clause structure in itself and becomes a mere option in A'- contexts. Personal pronouns are not used in A'-dominated contexts due to their deictic nature. The form *kendi* is not used in resumptive contexts due to its anaphoric nature. *kendisi*, on the other hand, is a "super-pronominal" and available in different contexts. Note that other languages which employ a productive resumption strategy make use of personal pronouns or clitics for resumption purposes. I propose that this difference is directly related to the variable nature of resumptives and A'- nature of resumption. That personal pronouns cannot be used resumptively in Turkish implies that personal pronouns cannot receive bound variable

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b. Helak ol müşrik-ler-e-dir ki kelime-i tevhid bir-le kendüler-e arılık
damn that infidel-PL-DAT-FACT that words.of.faith with themselves-DAT purity
hasıl kıl-ma-dı-lar
provide-NEG-PAST-3pl
Tefsir al- Ebilleys Tercümesi, 241-1, the fourteenth to fifteenth century,
Example from Tarama sözlüğü (1996:2427)

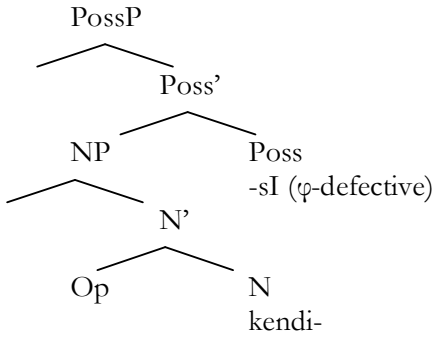
c. Ebleh-dir ol ki kendü-yi koy-up biregü-yi ara-ya
stupid-FACT that who himself-ACC leave-IP other-ACC look.for-OPT
"Stupid is the one who leaves himself and looks for someone else."
Maarifname, 178, the fifteenth century, Example from Tarama sözlüğü (1996:2433)

d. Şu-lar kim kendü-yü sultan san-ur-lar, Ahır toprak olu-cak utan-ur-lar.
that-pl who himself-ACC sultan consider-AOR-3pl later soil be-when embarrass-AOR-3pl
"Those (people) who consider themselves as sultan will be embarrassed when they died"
Müzekk al- Nüfus, 75, the fifteenth century, Example from Tarama sözlüğü (1996:2433)

reading. This prediction is in fact borne out as we will see in Chapter 5. I propose that the fact that personal pronouns cannot be used as bound variable anaphora is another factor for the presence of a complex expression *kendisi* which is devoted to variable interpretation.

Recall from section 3.2.1 that the resumptive pronoun *kendisi* has a complex structure, *kendi* and *'-sI'*. I propose that *'-sI'* heads the maximal projection of the resumptive pronoun. I assume that it is a Poss head with the following structure in (35).

(35)



In (35) the possessive morpheme *'-sI'* takes the NP as its complement. The empty Operator is the complement of N which is the nominal base *kendi*. The crucial point here is the availability of the extraction out of PossP, i.e. the extraction of Op is possible. This is supported by the fact that possessor raising is available in Turkish. Note also that the possessive morpheme *'-sI'* occurs in postposition and other nominal heads where the extraction is possible too as I have exemplified in section 3.2.1. The phrase structure for the resumptive material offered here is in the same spirit as the Big-DP approach of Boeckx (2003a). However, it is different from Big-DP approach in that it has a more complex phrase structure for the resumptive, i.e. the OP is inside an NP which is dominated by the Poss head. This creates some distance between the OP and its first landing site, i.e. the Spec PossP position. Given that movement cannot be "too

close", this helps us to argue for the movement of the empty OP to the left periphery via Spec-PossP position.[49]

The structure I offer in (35) incorrectly predicts all possessive morpheme involving nominals to have the same structure. However, I propose that there is a difference between *'-sI'* in a resumptive pronoun and other possessive morphemes in that the former is φ-defective while the latter is φ-active. This corresponds to strong vs. weak Agr distinction offered by Özsoy (2001). Note that the φ-defective nature of the resumptive is supported by a number of facts. First, resumptive pronouns are restricted to third person nouns. Second, resumptives show anti-agreement with respect to φ-features.

Therefore, there might be two different representations for the PossP in Turkish. The first one involves a Poss head which is φ-defective. In the second one, on the other hand, the Poss head is φ-active. The proposal I made for the internal structure of a resumptive finds support by the fact that there are postpositions with an internal *'-sI'* and these postpositions allow their complements to be dropped, i.e. alternate with gaps. Second, the possessor extraction is available in the language as exemplified in footnotes 31, 32 and example (22). However, one remark should be given here: two different representations for a single functional head imply a relatively heavier clause structure.

3.4.2. The Operator

This section discusses the theoretical and empirical evidence for the presence of the operators in relative clauses. Note that the gap position within the relative clause exhibits variable behavior with respect to syntax and semantics. This requires the clause to be interpreted under the restriction of an operator for theory internal reasons. We

[49] I thank Cedric Boeckx (p.c) for pointing this out to me.

assume following Aoun and Li (1993, 2003) that relative clauses are operator variable structures in that the Operator binds the variable inside the clause. As for the position of the Operator, we propose again following Aoun and Li (1993, 2003) that the Operator is in some Spec position in the C domain. The Operator in the C Domain (i) marks the whole clause as relative clause, (ii) binds the variable in the relativized position.

Chomsky (1995:199) argues that every complementizer can host an operator in its specifier position. In the absence of overt C heads (except *diye*) in Turkish, we propose that operators are present in the structure in the absence of overt C heads. Syntactic evidence for the operator position comes with the English sentence in (36) below.

(36) *To whom$_i$ did John give the book [OP$_i$ that I read t$_i$] t$_k$?

Note that (36) is ungrammatical and that this ungrammaticality results from wh-movement. In (36), there are two movements observed: (i) the movement of the relative operator *that* to the embedded Spec-CP, (ii) wh-movement of *to whom* to the matrix Spec-CP position. The first movement is not problematic given that it is local, hence no Minimal Link Condition violation. However, the movement of *to whom* into the Spec-CP of the matrix clause violates Minimal Link Condition given that the embedded Spec-CP is filled by the moved relative Operator. This gives us evidence that the relative operator in English is in the Spec-CP position.

As for Turkish, given that there is no overt wh-movement, we will consider long distance scrambling examples in order to see whether the same blocking effects are observed. Consider (37) where the scrambling out of a nominalized complement clause is available. However, in (38) the long distance scrambling out of a relative clause is not available.

(37) Ben yarın [$_{CP}$ t_i kitap oku-duğ-un]-u öğren-eceğ-im [Ali-nin]$_i$.
tomorrow book read-NOM-3sg-ACC learn-FUT-1sg Ali-GEN
"Tomorrow, I will learn that Ali is reading a book."

(38) *[Yarın [$_{RelCl}$ OP_k t_i t_k gör-düğ-ü]] adam-la konuş-acağ-ız [Ali-nin]$_i$.
tomorrow see-DIK-3sg man-COM talk-FUT-1pl Ali-GEN
"Tomorrow, we will talk to the man whom Ali saw."

In (37) *Ali-nin* is merged in the subject position of the nominalized complement clause and moved to a position in the C domain via adjunction. Note that the movement of the subject out of a nominalized complement clause is grammatical. However, in (38) the same expression *Ali-nin* which is merged in the subject position of the relative clause is moved out of the relative clause and the structure is ungrammatical.

The ungrammaticality of (38) can be considered as indicating that the Operator is indeed in the Spec-CP position and it blocks the extraction of a constituent out of the relative clause via long distance scrambling.

The presence of operators is justified for theory internal reasons. Predicate logic makes use of a number of operators such as the existential operator, universal operator, negative operator, modal operators which are used to explain logical operations and relations.

3.4.3. The Chain

This section offers an analysis of various linguistics phenomena such as resumption, binding, control and null argument licensing. I propose that what is responsible for the nature of anaphoric dependencies in Turkish are the different chain formation strategies between two positions. The head position of the chain is an empty operator in the C domain of the clause and the tail position is a bound variable inside the clause.

I assume that this empty operator can best be represented as a Topic operator given that the empty positions inside the clause (null objects, resumptives and null

subjects in the adjunct clauses) are of variable in nature and have topic function. This is based on the idea that Turkish is a null argument language and the arguments can be dropped without a necessary recovering procedure via φ-feature agreement. Thus, information structurally speaking, the arguments with the topic function can be licensed via an operator-variable chain.[50]

I propose that the Topic operator in the C domain operates on the clause and licenses the empty categories inside the clause.[51, 52] The chain is uniquely called A'- chain but the ways by which this chain is formed differ. The A'- chain is formed in three different ways: (i) resumptive chain, (ii) binding chain, and (iii) ellipsis chain. The common behavior of all these chains is that the empty positions receive a variable reading rather than a pronominal reading and the phonetic realization of these positions is restricted to the forms *kendi* and *kendisi*, i.e. personal pronouns or epithets cannot occur. Let us now discuss how each of these chains is formed.

In resumptive chain, the OP is merged inside the clause and moves to the Spec-TopP position. The presence of TopP is supported by the fact that resumptives in the highest subject position are available in Turkish. Recall from section 3.1.3.3 and 3.1.4.1 that the presence of resumptives in subject positions is a controversial issue in that languages vary as to whether resumptives are allowed in this position or not. While some languages such as Vata restrict resumptives to the subject positions, others such as Irish, Hebrew and Polish disallow resumptives in the same position. Turkish represents

[50] One remark has to be made here: In Turkish, the null subjects which are recovered via the φ-feature agreement on a syntactic head have been assumed to be represented by *pro* and have a topic function. Thus, if we assume a topic operator for the licensing of null arguments which are not recovered via φ-feature agreement, we would have to account for two distinct syntactic positions for Topic heads. Expounding the influential work by Rizzi (1997), I assume that clausal architecture of Turkish has two distinct positions for topic heads. The lower one is for the null subjects recovered by the φ-feature agreement and the higher one is for variable licensing.

[51] See Troberg (2004) for a similar account of resumptives in Old and Middle French versus Modern French in topic-comment structures. Otsuka (2001) reviews the book by Niko Besnier on Tuvaluan empty categories and points out that the language has a null argument which is of a variable nature and bound by the null topic. The topic variable analysis of null objects goes back to Huang (1984).

[52] See Akan (2009) for a discussion of the issue.

the third type where resumptives in this position are allowed to occur optionally. I propose that this results from the idea that there should be a TopP in the C domain (Boeckx 2003a) in the clausal architecture which creates a distance between the subject position where the resumptive occurs and the final landing site of the Operator. The chain formed via resumption is given in (39).

(39) C ….. $[_{(island)}$ …… $[_{PossP}$ $[_{NP}$ $[Op]$ $N_{head}]$ $Poss_{head}]]$
└——— Match (+ Move) ———┘

Following Boeckx (2003a, 2008) I propose that resumptive chains involve Match+Move operations. The Op merged with the resumptive material moves to the C domain and licenses the resumptive which is stranded in the merge position.

The resumptive chain is a derivationally conditioned chain and is subject to the subject position freezing that I will discuss in the section on islands. Resumptive chain is responsible for the derivation of relative clauses. The anaphoric chain is the second derivationally formed chain and is used to license the anaphoric dependencies in the clause. It is derivational in that the OP merged with the anaphor moves to the C domain. Ellipsis chain, on the other hand, is a representationally formed chain and is not subject to freezing. Null objects and the empty positions inside the adjunct islands are licensed via the ellipsis chain where the resumptive is deleted at PF, after a possible chain reduction mechanism. I propose that the lack of subject position freezing for the licensing of empty positions inside adjunct clauses can be explained with the representational chain. The fact that *kendisi* occurs in the position of a null object is simply an intrusion, which independently speaks for base generation, i.e. representational chain where the Op is base generated in the C domain. Derivational chain, on the other hand, is subject to freezing where the empty positions inside a wh-

or a complex NP island cannot be licensed in the presence of an operator in the higher clause. The three chains are shown in (40a-c).

(40) a. Resumption chain
[OP_i …..[Clause ……. [t_i resumptive$_i$]…….]]
↑_____ Move

b. Binding chain
[OP_i …..[Clause …… [t_i anaphor$_i$]…….]]
↑_____ Move

c. Ellipsis chain
[OP_i …..[Clause …… ec=null resumptive$_i$ …….]]

(40a) is a representation where the empty topic operator licenses the resumptive inside the clause. The movement of the empty operator is observed and the licensing operation is subject to subject position freezing. The licensing mediated by the Operator in C domain which is formed via Move is conditioned in a way that an intervening licensing operation which occurs in the T domain blocks the movement of the empty operator which is merged inside the clause. Likewise, (40b) involves the movement of the empty operator to the C domain. However, this time the material inside the clause is an anaphor. In (40c) there is no movement and the empty operator which is merged in the C domain licenses the empty category inside the clause. The empty category is actually a null resumptive. The formation of these chains implies a certain relation between the antecedent and the materials which are licensed.[53]

Boeckx (2008:223) independently argues that construal relations such as binding and control fall under the rubric of resumption. According to Boeckx (2008:228), bound elements are resumptives and this position is also held in Kayne (2002) and Grohmann (2003). Copy reflexives are not pronounced traces of movement but resumptives which are duplicated to mark focus, as an instance of anti-agreement. Boeckx (2008) also

[53] I use "ellipsis chain" as the label for the chains with which the null objects are licensed. Given that there is an empty category in these constructions, I will continue using ellipsis in order to point out the structure where *pro* has been assumed to be present.

points out that control cases are resumption too. The fact that PRO is never an overt category is explained by the null character of resumptives in control cases.

3.4.4. Resumptive and its Antecedent

I take the antecedent of the resumptive as a phonologically empty operator, not the head noun. Thus, I implement not the head raising (Kayne 1994) or the matching analysis (Sauerland 1999) of relative clause formation, but the operator raising of Chomsky (1977). The reason behind this is two fold: (i) I eliminate reconstruction for anaphor and pronominal binding given that the relevant data are missing in Turkish or structures can be derived via a different clause structure which does not need reconstruction of the head noun. Thus, only the scope reconstruction speaks for the head raising approach in Turkish. However, this can be mediated via the operators, i.e. the Operator can be interpreted at the movement site at LF: (ii) Turkish is an argument drop language, a fact, according to the proposal here, suggests a licensing mechanism which is tied to the C domain. The C domain is endowed with empty operators and these operators take a crucial role in licensing.

The resumptive and its antecedent, the empty operator, form a unit via Merge XP. As a result of this Merge XP, the resumptive assumes all the features of its operator. This allows it to enter into the grammatical relations such as case checking in V domain of the clause. This explains the obligatory use of resumptive pronouns in a number of contexts. For instance, in a complex NP structure, if the complement clause which has the same structure with a non-subject relative clause is embedded under a subject relative clause the resumptive but not the empty operator checks case with *v* head and the Operator moves freely to the higher positions.

(41) [*ec_i / *kendisin*-i_i gör-düğ-üm]-ü farked-en $adam_i$
rp-ACC see-DIK-1sg-ACC realize-REL man
"The man who realized that I saw him"

In (41) the resumptive acts in a grammatical relation and fulfills the task of its antecedent. Once the resumptive does the task, the Op moves freely to the higher positions. This explains the saving device characteristics of resumptive in Turkish. I consider this way of reasoning as related to the idea that the source of the ungrammaticality is not the movement, but the case checking requirement in the lower *v* domain. In other words, there has to be a resumptive element with all the features of its antecedent and it has to check case with the lower *v*. This is given in (42) below.

(42) [[C … [(island) [vP [NP [Op] N] *v*]]]] (*v* = structural case)
Match
Agree

In (42) Match+Move applies and a chain is formed between the Operator inside the clause and the C domain. The empty operator moves and the resumptive strands in the original merge position. Resumptive case checks with the *v* head as a result of which no ungrammaticality arises. This, I propose following Boeckx (2003a) is the saving characteristics of resumption in the language.

However, resumptives do not always save the otherwise illicit structures. Recall from section 3.3.2 that in some languages such as Scottish Gaelic and Romanian resumptives respect island constraints, i.e. resumptives are not allowed inside islands. Boeckx's system for the cases where resumptives are banned inside islands is based on the presence of Agree operation between the C* and wh/Op. This claim is independently supported by the complementizer agreement in these languages according to which a special type of complementizer is associated with resumptive chains. I propose that this explanation falls short for a language which does not

implement complementizer agreement and I do not take the position that Agree is established between the C and Op position in anyway. Subject vs. non-subject relativization strategies in Turkish, i.e. *-(y)An* vs. *–DIK* strategies, have nothing to do with complementizer agreement. At this point, I propose that the fact that resumptives are banned inside islands is a result of an independent phenomenon, subject position freezing. In next section, I will discuss the different structures where the resumptives are disallowed. However, let us discuss one example here in order to see the reasoning behind this claim.

The subject relativization which is embedded under a non-subject relativization cases, both resumptives and the gaps are disallowed. The relevant example is given as (43-44).[54]

(43) [ec$_k$ **ec$_i$* / **kendisin*-i$_i$ döv-en] adam-ı$_k$ tanı-dığ-ım çocuk$_i$
rp-ACC beat-REL man-ACC know-DIK-1sg boy
"The boy that I know the man who beats him"

(44) [[C … [$_{CPisland}$ C [$_{TP}$ [$_{NP}$ [Op] N] [$_{vP}$ [$_{NP}$ [Op] N] *v*]]]]]
Match *Subject relativization*
* Match *Object relativization*

The ungrammaticality of (43) which is represented in (44) can be explained in the following way. The resumptive and the Operator merge in the complement position of the subject relative clause. Since another relative operator merges in the subject position and moves to Spec-TopP of its own clause, the subject position of the relative clause has a freezing effect as a result of which the clause freezes (Rizzi and Shlonsky 2006, Öztürk 2008). Hence, the Op in the complement position cannot move over an operational domain. That is to say, the first Match+Move operation for the formation

[54] Actually, the problem seems to be related to the resumptive pronouns rather than ecs given that empty categories do not care about islands. I thank Balkiz Öztürk for pointing this out to me. However, I point out that empty categories respect islands in a number of contexts that I discuss in the next section. Indeed the ec in (43) is grammatical with the reading where the ec receives a generic reading on a par with null objects, i.e. the ec is interpreted as "anyone who is beaten by the man". However, the reading where the ec is interpreted with the head noun is ungrammatical.

of the chain between the C in the lower domain and the Op in the lower subject position is parasitic on the chain formation between the lower complement position and the higher C domain. Rizzi and Shlonsky (2006) argue for a similar hypothesis where the criterial freezing position does not allow further movement.

According to Boeckx's system, resumptive and its antecedent cannot enter into a checking relation upon their merge. In the case of a checking relation, the chain would be an ambiguous chain. Hence two strong occurrences arise which in turn cause ungrammaticality. This is supported by the anti-agreement facts observed for Irish in Boeckx (2003a, 2008). Anti-agreement occurs between the antecedent and the resumptive with respect to φ-features and case. In Turkish resumptive and its antecedent relations, case agreement holds in that resumptive is inflected with case morphology. Also, number agreement holds between the resumptive and the antecedent (kendi-*si* versus kendi-*leri*). This constitutes a problem for Boeckx's analysis of [antecedent+resumptive] as big DP and has to be explained.[55, 56] Boeckx (2008) points

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[55] Turkish is one of the languages reported in Boeckx (2008:183-4) for anti-agreement cases. He points out that some languages such as Selayarese, Chamorro and Kinande eliminate agreement entirely while some languages including Turkish replace the finite agreeing verb form with a participle. (i) is from Boeckx (2008:184).

(i) Hoca-yi gor-en(*-ler) ogrenciler
lecturer-ACC see-part(-pl) students
"The students who saw the lecturer"

Boeckx (2008:184) Example (34)

However, I point out that this example has implications on the usages of the plural morpheme *'-lAr'* rather than anti-agreement. The finite agreeing verb (subject-verb agreement) form behaves in the same way too. Consider (ii) which involves non-subject relativization with *'–DIK'* morpheme. The plural morpheme on the relativized verb is awkward.

(ii) Öğrenci-ler-in gör-düğ-ü(*?-ler-i) hoca
student-PL-GEN see-DIK-3sg(*?-pl) lecturer
"The lecturer whom the students saw"

In (ii) the verb which carries the agreement is used instead of the participle. Nevertheless, the result is the same. I propose that what (i) and (ii) show actually is that the plural morpheme is a pronominal form which is blocked in the presence of a plural subject. In the absence of the plural subject, plural morpheme is available, actually obligatory as exemplified in (iii) and (iv).

(iii) Gör-dük-leri hoca
see-DIK-3pl lecturer
"The lecturer whom (they) saw"

out that this could be an instance of accidental Match rather than Match under Agree.[57] The crucial point however is why Turkish resumption is restricted to the third person. I propose that the answer lies in the fact that only *kendisi* is used as resumptive in Turkish, and this can be considered another instance of anti-agreement. Moreover, with respect to person, anti-agreement is actually observed in Turkish. (iia) of footnote 31 is repeated here as (45).

(45) ?kendi-sin-i çok sev-diğ-im sen[58]
rp-ACC much love-DIK-1sg you
"You, I love very much"

In (45) the resumptive and the antecedent do not match with respect to person features. This shows that the merge of resumptive and its antecedent does not involve φ-feature checking.

Another problem for Boeckx (2003a, 2008) has to do with the variable nature of resumption. If the resumptive is a variable, and thus φ-feature defective, how does it enter into case checking relation? In Chapter 5 I will show that *kendisi* is indeed φ -defective in that its φ-features are not interpretable. But, this problem is only apparent if we consider the fact that resumptives in the complement position do not enter into a φ-feature checking for case. I assume that the Poss head *'-sI'* is not involved in case

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(iv) Hoca-yı gör-en-ler
lectuer-ACC see-REL-pl
"(Those) who saw the lecturer"

In (iii) and (iv) the use of the plural morpheme is obligatory. I propose that the so called plural morpheme is a pronominal form which indicates the plural subject rather than a plural morpheme. See Göksel (2006a) for further discussions on the issue.

[56] This can also be explained by the fact that the resumptive and its antecedent, the Op, do not both carry the case feature. I thank Meltem Kelepir for this point.

[57] Accidental Match is the term for φ-feature agreement between the resumptive and its antecedent in the absence of Agree. Match under Agree is the term for the cases where Match is followed by Agree. In other words, in some cases Match involves φ-feature agreement, but it does not necessarily indicate the presence of Agree.

[58] This is totally ungrammatical for some native speakers.

checking via φ-feature Agree due to its defective nature. Unvalued case features of the goal are valued by the Probe, *v* as a spec-head relation.[59]

The last problem I raise for Boeckx's Big DP analysis is related to the movement ability of resumptives. Note that Big DP analysis is based on the assumption that the resumptive does not move from islands. Its antecedent moves, the resumptive strands. If the resumptive itself moves, Boeckx's analysis would fail to account for this movement since resumptive is a type of proxy checker (2008:208) inside the island. Its movement would cause the formation of an ambiguous chain, which is argued to be the source of ungrammaticality in Boeckx (2003a, 2008). However, Turkish seems to allow displacement of resumptives akin to the Hebrew resumptive fronting discussed in Demirdache (1991). Consider (46a-c).

(46) a. ?[*Kendisi-yle*$_i$ kim-in t_i evlen-diğ-in]-i bil-me-diğ-im adam$_i$
rp-COM who-GEN mary-NOM-3sg-ACC know-NEG-DIK-1sg man
"The man that I do not know who married him"

b. *Kendisin-e*$_i$ [dün t_i gör-ünce] bağır-dığ-ım arkadaş-ım
rp-DAT yesterday see-when yell-DIK-1sg friend-1sg
"My friend whom I yelled when I saw him yesterday."

c. *Kendisin-e*$_i$ Ali-nin t_i çiçek ver-diğ-in-i düşün-düğ-üm öğretmen$_i$
rp-DAT Ali-GEN flower give-NOM-3sg-ACC think-DIK-1sg teacher
"The teacher I think Ali gave flower to him."

Note that the examples (46a-c) are grammatical. (46a) involves the resumptive element which is interpreted as the oblique complement of the embedded verb and is moved to the sentence initial position via scrambling. In (46b) the resumptive originates inside the adjunct clause and moves to the sentence initial position. Finally, in (46c) the second complement (resumptive) of the embedded verb occurs in the sentence initial position. The movement of the resumptive creates an ambiguous chain in Boeckx's system, at least in the (b) case since the resumptive moves out of the adjunct island.

[59] This implies that there is a functional head, say D or K(ase), having its own maximal projection which checks case with the *v*. I leave this issue open here.

I propose that the movement of resumptive would not cause any problem if we assume that resumptive is pronounced in its surface position at PF. Given that there is no interpretive difference between the structures where the resumptive is pronounced in its original position and the one where it is pronounced in its surface position, the issue of LF transparency is in fact not relevant.

To summarize, I have argued that the dependency between the empty operator and the relativization site is a result of [Match+Move] chain. The resumptive and the antecedent, i.e. the Operator, start off as a single category and the Operator moves to the C domain while resumptive strands in the base position. The chain splitting operation offered here results in the formation of two separate chains. The Operator moves to the C domain in order to check the Rel feature of the Top head and the stranded material, resumptive enters into the case checking relation with the *v* or P heads inside the clause. In the next section, I will discuss how the system offered here explains the island insensitivity observed in resumption.

3.4.5. Islands (in)sensitivity

As I have pointed out in Chapter 2, the earlier studies on resumptives revealed that resumptives in many languages do not respect islandhood. For this reason, they have been argued to be derived via base generation, rather than movement (Chomsky 1982). However, the fact that resumptives do not respect islands is not universal. Boeckx (2003a) points out that there are languages such as Vata and Serbo-Croatian where the resumptives are not allowed within all islands. Also, resumptives in Greek restrictive relatives are sensitive to islands (Alexopoulou 2006:58). There are also languages such as Turkish where in some cases neither gaps nor resumptives respect islands. This common behavior suggests that the island phenomenon cannot be used as evidence for the assumption that resumptive chains do not involve movement. In fact, island

constraints exhibit contradictory requirements for the relative clause formation in Turkish. I develop a new system based on the insights in Boeckx (2008) for the island constraints.

3.4.5.1. Island Constraints

Since the seminal work of Ross (1967), island constraints have been in the hearth of generative syntax in both GB and Minimalist eras.[60] Ross (1967) has observed that movement out of some configurations results in ungrammaticality and defined these configurations as islands for movement. Relative clauses, clausal adjuncts, wh-clauses, coordinate structures, sentential subjects are such structures out of which movement is illicit and the ungrammaticality caused by movement out of these structures has been called island effects.

Chomsky's (1973) paper "Conditions on Transformations" has taken the issue of islands into a study on locality of operations. However, the literature so far has focused only on one side of the issue, the idea that the island phenomenon is an issue of linguistic competence. This implies the existence of an alternative view which focuses on the linguistic performance side. In other words, islands may be all about the performance criteria such as memory limit or processing difficulties (Boeckx 2008:20).

Once the island effects have been defined and observed cross-linguistically, they have been used as a testing ground for the presence/absence of movement in a particular structure. That is to say, particular structures have been argued to involve movement in the presence of island effects and base generation in the absence of them. Some cross-linguistic contradictory observations have been explained by dividing the

[60] Before Ross (1967), Chomsky (1964) (cited in Boeckx 2008:17) proposes A-over-A condition which blocks the movement of an element type A to a position B if the element of type A was dominated by another element of type A.

islands as weak vs. strong in that the movement has no island effects or mild island effects in the former, but has strong effects in the latter.

Island effects had an important role in the discussions concerning resumptive structures. That is because resumptive structures involve a pronoun which occurs where the movement is assumed to leave a trace, i.e. copy. Consider two structures where the movement out of an island ends in a trace, i.e. copy, in the first one and in a resumptive pronoun in the latter. Note that the first structure is ungrammatical as expected from the relevant island constraint, but the second structure is grammatical contrary to what is expected. Thus, resumptive structures in the earlier studies (cf. Chomsky 1982) are argued to involve base generation rather than movement since they do not respect island constraints.

However, as I have pointed out before, there are languages where the resumptives exhibit island effects. Welsh, Polish and Vata are among these languages (cf. Rouveret 2002, Bondaruk 1995, Boeckx 2003a respectively). Boeckx (2008) proposes that some checking sites constitute an upper bound for movement. The following statement is from Boeckx (2008):

(47) "An element can only move to a single feature-checking site."
Boeckx (2008:167) Example (3)

In Boeckx's system (47) acts as a boundary condition on movement. Elements move to a feature-checking site and this site marks the upper bound of the chain that the moved element forms. In other words, the checking site is the edge which defines the chain's maximal extension. However, this does not mean that an element moves only once. If there is no feature checking involved, the element can move further.[61] Accordingly, a

[61] Boeckx (2008) and his earlier works Boeckx (2003a, 2007) argue that the intermediate landing sites of movement do not involve feature checking. He points out that the intermediate chain links are not motivated by immediate feature checking considerations. Hence, an element is free to move/adjoin so long as it contains an unvalued feature. In the cases of resumption, the wh-/Op moves from the

chain can be defined by two domains. The first domain is defined as the external merge position and the second is defined as the internal merge domain. Note that Boeckx points out that there are three domains in clausal architecture: V, T and C domains which he labels as α, T and ω domains respectively. He argues that A'- chains terminate when they reach a checking site that is defined by a pair of ω occurrences, Force head and Fin head.

Boeckx (2008:206) extends his proposal to island repair cases where an ambiguous chain, i.e. the two instances of feature checking by one single element, splits into two unambiguous chains, i.e. chains where one single element enters into one single feature checking. The single feature checking is labeled "only one strong occurrence", i.e. one instance of EPP checking. Chain splitting results in resumption through which the island violation is ameliorated. Also, he explains the absence of island effects in wh-in-situ, ellipsis, control and binding cases.

Now, let us see how we deal with the island phenomenon in Turkish. The fact that island constraints exhibit contradictory requirements for the presence/absence of movement is shown below. I discuss four types of construction where the island constraints fail to present a unified account: (i) structures where both the resumptive and the corresponding gap can occur inside an island, (ii) structures where neither resumptive nor corresponding gap is allowed inside the island, (iii) structures where the resumptive seems to save the structure with a corresponding gap, and (iv) structures where the resumptive seems to make the structure worse. These cases are exemplified in (48a-d) below.

(48) a. Ali-nin [*e*$_{k}$ / *kendisin*-i$_{k}$ takip eder-ken] kaybet-tiğ-i adam$_{k}$
Ali-GEN rp-ACC follow-while lose-DIK-3sg man
"The man whom Ali lost while following (him)"

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complement position of the D head into the Spec-position of DP. Given that this step does not involve feature checking, there is no violation of (47).

b.[62] Avcı-nın [*ec_k/ *$kendisin$-i_k korkut-an] arslan-ı öldür-düğ-ü çocuk$_k$
hunter-GEN rp-ACC frighten-REL lion-ACC kill-DIK-3sg boy
"The boy that the hunter killed the lion that frightened him."

c. [Ali-nin *?ec_k / *kendisin*-i_k gör-düğ-ün]-ü farked-en adam
Ali-GEN rp-ACC see-NOM-3sg-ACC realize-REL man
"The man who realized that Ali saw him"

d. Ali-nin [ec_k /*$kendisi_k$ koşar-ken] gör-düğ-ü] adam$_k$
Ali-GEN rp run-while see-DIK-3sg man
"The man whom Ali saw while himself is running"

In (48a) the case where both strategies are licensed is exemplified. The gap and the resumptive occur inside an adjunct island. However, both strategies are grammatical contrary to what we expect from island constraints. (48b) exemplifies the case where neither strategy is licensed. In this case, relativization applies to a complex NP island where the gap and the resumptive pronoun occur as the complement in a relative clause which is embedded in another. The ungrammaticality of both structures indicates that movement is not involved in relative clauses which are formed as relativization out of relative clauses. In (48c) the resumptive pronoun seems to save the otherwise illicit derivation in a relativization out of relative clauses. This type shows that resumptives are used as a saving device, as has been argued in a number of works such as Shlonsky (1992). However, the example in (48d) exhibits just the reverse characteristics.[63] In this case, the resumptive pronoun seems to make the structure ungrammatical. This is another contradiction for the island constraints on movement. This contrast implies that the island constraints and movement cannot be related to each other in that the absence

[62] Some native speakers find the use of resumptive grammatical in this case and also in (51). I assume that there is a dialect split with respect to the use of resumptive pronouns inside a subject relative clause which is embedded under a non-subject relativization. Dialect A finds this ungrammatical. Dialect B, on the other hand, finds the resumptive in that position grammatical. However, I would like to point out that the *ec* in (48b) is grammatical only with the reading where the *ec* receives a generic reading on a par with null objects, i.e. the *ec* in (48b) is interpreted as "a lion which scares anyone" or "the lion is scary so that everyone (the boy) is scared". However, the reading where the *ec* is interpreted with the head noun is ungrammatical.

[63] See also Alexopoulou and Keller (2007) for a discussion and the criticism of the "saving device" characteristics of resumptives.

of island violations speaks for base generation and their presence does so for movement. If this were the case, we would not have the grammaticality facts in (48a) through (48d).

Another point which is worth pointing out is that constructions which are considered islands in other languages might not be true islands in Turkish. Also, the island status of a clause may be construction specific in that while it acts as an island for scrambling, it does not do so for operator movement. Take for instance adjunct clauses given in (49a-d).

(49) a. Ali-nin [ec_k takip eder-ken] kaybet-tiğ-i adam$_k$
Ali-GEN follow-while lose-DIK-3sg man
"The man whom Ali lost while following (him)"

b. Kitab-ı$_k$ ilk ben [Ali ec_k okur-ken] ağla-dı-m
book-ACC first I Ali read-while cry-PAST-1sg
"I cried first while Ali was reading the book"

c. *Ali ilk ben [ec_k kitab-ı okur-ken] ağla-dı-m
Ali first I book-ACC read-while cry-PAST-3sg
"I cried first while Ali was reading the book"

d. Kitab-ı$_k$ ilk ben [kim-i ec_k okur-ken] gör-dü-m?
book-ACC first I who-ACC read-while see-PAST-1sg
"Who did I see first while reading the book?"

In (49a) case the grammaticality of the structure shows that the adjunct clause is not an island for operator movement in relative clauses. Likewise, (49b) shows that object scrambling out of an adjunct clause is available. However, in (49c) the subject extraction out of an adjunct clause results in ungrammaticality. Finally in (49d) the wh-item *kimi* (who) can take matrix scope indicating that the adjunct clause is not an island. These puzzling behavior of islands might be due to the fact that Turkish is a wh-in-situ language where feature percolation applies moving at LF the whole phrase under which the relative clause is embedded (cf. Özsoy 1996).

The four types of structures in which resumptives behave in contradictory ways and the different behaviors of the same "island" in various constructions suggest that island constraints in Turkish work in a different way. What is really an island for movement in Turkish? I propose that the island status of a linguistic unit is not something which is intrinsic to the unit, but is closely related to the clausal architecture and the grammatical operations applying in the clause. That is to say, different properties of resumptives and gaps seem to be regulated by a set of conditions on the formation of A'- chains whose head is a moved empty operator in the C domain. It is how this empty operator works in the course of the derivation is what marks a chain (il)licit with respect to resumption. This is in line with Boeckx (2008:167) who states "Although island effects are found in all languages, there is some variation in the patterns of extraction that may be hard to capture on a purely configurational view of locality."

Actually, island (in)sensitivity phenomenon is the point where the other two movement analyses of resumption, LF movement and PF spell out approaches, are eliminated. Note that Demirdache's (1991) LF movement approach which argues that resumptives move at LF and become variables correctly predicts the reconstruction data that we observed in section 3.3.1. Moreover, Demirdache (1991) shows that resumptives in Hebrew show island insensitivity. However, as we seen above, resumptives in Turkish show no consistent behavior with respect to islands. In some cases, they save the derivation while in some others they show no such effect, i.e. they show sensitivity to the island. Yet in another case, resumptives make the structure even worse. I propose that LF movement approach cannot explain these facts. Hence, it is eliminated.

Recall that Pesetsky's (1998) Spell-out approach argues that resumptives are copy spell outs and are introduced at PF component. PF spell-out approach puts the island (in)sensitivity into the interface level rather than handling it in syntax proper.

However as I will show below, island phenomenon is explainable in narrow syntax through freezing effects on the subject position and operator interaction in A'- chains. Another problem with respect to Spell-out approach is that the resumptive in Turkish is a composite form. As we have seen in sections 3.2.1 and 3.4.1, the resumptive is actually a larger category than its antecedent. In other words, Operator is only a part of a resumptive complex at the beginning of the derivation. Therefore, if resumptive were really a pronounced copy of the Operator, we would not explain the internal structure of the resumptives in Turkish.[64] Thus, I eliminate the PF Spell out approach too.

After giving the problematic aspects of two other analyses of resumption, let us begin with complex NP islands and try to explain how the system predicts the facts we observe.

(i) Complex NP islands

First, let us note that relativization out of relative clauses does not cause ungrammaticality in the cases where a non-subject relativization is embedded under a non-subject relativization and where a non-subject relativization is embedded under a subject relativization. This is exemplified in (50a-b)[65] respectively.

(50) a. [ec_k *ec*$_i$ al-dığ-ı] oyuncağ-ı$_i$ gör-düğ-üm çocuk$_k$
buy-DIK-3sg toy-ACC see-DIK-1sg boy
"The boy that I saw the toy that he bought"

b. [ec_k *ec*$_i$ al-dığ-ı] oyuncağ-ı$_i$ kır-an çocuk$_k$
buy-DIK-3sg toy-ACC break-REL boy
"The boy who broke the toy that he bought"

In (50a-b) the higher head noun is interpreted as the subject of the most deeply embedded verb *al-* (to buy). In (50a) case the higher head noun is the complement of

[64] See Salzman (2006:306-307) for a similar line of reasoning.

[65] I thank Meltem Kelepir for providing these examples to me.

the higher verb while in the (b) case it is the subject of the higher verb. Note that both examples are grammatical. However, there are examples of relativization out relative clauses which causes ungrammaticality. Consider (51) where the subject relative clause is embedded under a non-subject relative clause.

(51) [ec$_k$ *ec_i / *?*kendisin*-i$_i$ döv-en] adam-ı$_k$ tanı-dığ-ım çocuk$_i$
rp-ACC beat-REL man- ACC know-DIK-1sg boy
"The boy that I know the man who beats him"

In (51) the empty category with index i occurs in the most deeply embedded clause which is an instance of subject relativization. The subject relative clause is embedded under the non-subject relativization. The use of resumptive pronoun does not save the structure given that both forms, i.e. the resumptive and the gap, are ungrammatical. I propose that the ungrammaticality arises due to the fact that the Op merged in the subject position of the most deeply embedded relative clause moves to the C domain of its own clause and blocks the movement of the Op which is merged in the complement position of the non-subject relative clause. This implies that in subject relativization the Op which is merged in the subject position and moved to the C domain makes the clause "freeze" in the sense of Boeckx's (2003a) strong positions, Rizzi's (2006) criterial positions[66], and hence no further movement out of the clause is allowed.[67] The explanation implies that the (un)grammaticality of a relative clause does not depend on the presence or absence of the resumptive pronoun. This is actually what we have

[66] Rizzi (2006) claims that the starting point of a chain is an s-selectional position from which no chain link can be lower. The end of a chain is a criterial position. There is no position higher than this criterial position. Consequently, the intermediary positions are neither s-selectional nor criterial. Richard (2001) and Boeckx (2003a) (cited in Boeckx 2008:165) use the term "too strong" for the same effect observed in Rizzi (2006). Recall Boeckx's (2003a) Principle of Unambiguous Chains (PUC) which argues that a chain can only contain one strong position=occurrence where a strong position is defined in terms of checking of the feature associated with an EPP property.

[67] What is intended to propose here about freezing is that positions in the clause freezes, but not that the clause itself does so. The subject position of the relative clause can be considered as a freezing position (cf. Rizzi and Shlonsky 2005 and Öztürk 2008).

shown in (51), where both strategies are ungrammatical. If it were not, we would have a grammatical structure with the resumptive one.

Structures in which resumptives act as a saving device can be exemplified by relativization out of complement clauses. In (52) the complement clause is embedded under a subject relative clause. In this case, the gap is usually ungrammatical while the corresponding resumptive pronoun is fine.

(52) [*ec_i / *kendisin*-i_i gör-düğ-üm]-ü farked-en adam$_i$
rp- ACC see-NOM-1sg-ACC realize-REL man
"The man who realized that I saw him"

Note that the *ec* in the relativization position causes ungrammaticality and the resumptive pronoun saves the structure.[68] I propose that the ungrammaticality of *ec* has nothing to do with the island status of the most deeply embedded clause. What is crucial about the structure is that the Op merged in the complement position of the non-subject relative clause cannot move higher after it checks case with the embedded verb. In the presence of the resumptive element, on the other hand, resumptive checks case with the verb and Op moves freely to the higher Spec positions. The explanation here follows from Boeckx's (2008) treatment of the saving device characteristics of resumptives. By means of resumption, the A'- chain becomes unambiguous in that only one checking occurs in a domain. Thus, in relativization out of relative clauses where the embedded clause is a non-subject relative clause, resumptive saves the derivation.

[68] What is also interesting about (52) is that the use of a regular personal pronoun is acceptable in the position where the resumptive occurs. I thank Eser Taylan (p.c) for pointing this out to me. Given that the position where the personal pronoun occurs is not the relativization site, the status of the personal pronoun as resumptive is dubious. Note that the acceptability of personal pronouns inside the complement clauses increases as the embedding gets more complicated, i.e. the number of embedding increases. I leave this issue for further investigatitons.

(ii) Wh-islands

Wh-islands are structures where movement out of a wh-clause causes ungrammaticality. The long distance movement of the wh-word or the Operator is banned in many languages such as in English. In this section, we discuss how relativization out of a wh-clause behaves in Turkish.

In relativization out of a wh-clause which acts as the complement of the higher verb (53a) or which is itself a relative clause (53b), no ungrammaticality arises.

(53) a. [ec_i / *kendisin*-i_i kim-in döv-düğ-ün]-ü bil-me-diğ-im $adam_i$
rp-ACC who-GEN beat-NOM-3sg-ACC know-NEG-DIK-1sg man
"The man that I do not know who has beaten him"

b. ec_k [ec_i / **kendisi*$_i$ ne zaman gel-en] adam-$ı_i$ tanı-yan $çocuk_k$
rp when come-REL man-ACC know-REL boy
"The boy who knows the man who (he) came when"

In (53a-b) the non-subject relativization out of a wh- clause which acts as a complement clause having the same structure with non-subject relative clauses, and subject relativization out of a wh- clause with subject relativization respectively are available respectively. Note that the resumptive pronoun in (53a) is grammatical while the one in (53b) is ungrammatical. For the ungrammaticality of resumptive pronoun in (53b), I propose that the offending situation is not the resumptive pronoun itself, but the interaction between the Op and the subject positions. I will explain this later in this chapter.[69]

[69] Note that case can also be considered as the source of the asymmetry in (53a-b) in that wh- items which take case markers are more readily accepted than those which do not get case. I thank Balkız Öztürk for pointing this out to me. However, I would like to remark that the judgments do not change when we modify (53b) to have a case marked wh- item. Consider (i).

(i) ec_k [ec_i / **kendisi*$_i$ kim-den gel-en] adam-$ı_i$ tanı-yan $çocuk_k$
rp who-ABL come-REL man-ACC know-REL boy
"The boy who knows the man who (he) came from whom?"

In (i) above, the wh- item in the most deeply embedded clause is case marked with ablative but the structure is still ungrammatical.

As in the case of relativization out of relative clauses, resumptives save the structure in cases where the wh- clause which acts as the complement of the higher verb is embedded under a subject relative clause. This is given in (54) where the non-subject relativization strategy is used in the wh- clause and subject relativization occurs in the higher clause.

(54) [kim-in *ec_i / *kendisin*-i_i döv-düğ-ün]-ü bil-en çocuk$_i$
who-GEN rp-ACC beat-NOM-3sg-ACC know-REL boy
"The boy who knows who has beaten him"

In (54) the empty position which is interpreted with the head noun occurs in a wh-clause. While gap strategy is not allowed, resumption strategy is as the grammaticality judgments show. I propose that the source of ungrammaticality is the ambiguous nature of the chain with *ec*. The Op cannot enter into two checking relations at the same time. In the resumptive case, on the other hand, the OP in the lower clause does not check case with the verb. Instead, the resumptive does this (cf. Boeckx 2008).[70] Hence, the OP still has a licensing force and moves cyclically to the Spec positions in the higher C domain.

If this explanation is on the right track, we expect resumptives not to save the derivation in which a subject relativization is embedded under a non-subject relative clause, given that the empty OP is merged in the subject position of the lower clause and blocks the movement of the empty OP which is merged in the complement position. This prediction is borne out given that resumption does not save the derivation in (55) below.

[70] The discussion reveals that there is subject vs. object asymmetry in relativization. I assume that this results from the clause structure facts which I will discuss in Chapter 6. One point however should be clarified. Subject relativization involves an empty Op which is merged in the subject position. It is possible that the presence of another Op in the C domain for subject licensing, independent of the relative Op, makes the subject relative clause a closed domain out of which no movement is allowed.

(55) [*ec_i / *$kendisin$-i_i nerede döv-en] adam-ı tanı-dığ-ım çocuk$_i$
rp-ACC where beat-REL man-ACC know-DIK-1sg boy
Intended reading: "The boy that I know the man who has beaten him where."

Note that both gap and the corresponding resumptive are ungrammatical in (55) above. The ungrammaticality of either strategy is related to the subject relativization in that the C domain of the most deeply embedded clause is filled by an Op which blocks the movement of the Op which merges in the complement position. Therefore, in (55) the Op in the lower subject relative clause makes the structure "freeze" so that no movement out of this clause is possible.

(iii) Adjunct islands

Adjunct clauses constitute another domain that we discuss in relation to the operator extraction.[71] In Turkish the extraction of an operator out of adjunct clauses does not cause ungrammaticality. A typical example is given in (56).

(56) [*ec_i* / *$kendisin$-i_i [$ec_{i/k}$ koş-arken] gör-düğ-üm$_k$ adam$_i$
rp-ACC run-while see-DIK-1sg man
"The man that I saw while I am/he is running"

Note that both gap and resumptive strategies are grammatical. The structure with the gap has two interpretations: (i) the subject of the embedded verb is interpreted with the head noun, and (ii) the subject of the embedded verb is interpreted with the subject of the higher verb. In both cases, I propose that the Op merges outside the adjunct clause.

[71] We discuss the extraction out of an adjunct clause which is embedded under a relative clause here. However, relative clauses are adjuncts in nature too. The point here is that the two adjunct clauses are different in their clause structure. Adjunct clauses which are formed with the suffixes '-IrkAn', '-(y)IncA' are true adjunct clauses with nominative subjects. However, relative clauses are nominalization structures with genitive subjects. See Öztürk (2003b) for the derivation of adjunct clauses under Distributive Morphology framework.

Moreover, the island status of the adjunct clauses here is based on relativization data, i.e. relativization out of adjunct clauses. Öztürk (to appear) observes that adjunct clauses block rightward scrambling of both subjects and objects. While adjunct clauses allow relativization out of them, they disallow rightward scrambling. This supports our view that it is not the syntactic nature of the clauses which makes them (un)available for extraction.

Therefore, there is no island effect observed in the structure. I propose that this explains the ungrammaticality of (57) below.

(57) [ec_i / *$kendisi_i$ koş-arken] gör-düğ-üm adam$_i$
rp run-while see-DIK-1sg man
Intended Reading: "The man that I saw while he himself running"

The example (57) is ungrammatical with the resumptive reading of *kendisi* while the adverbial reading (by himself) is judged to be grammatical. This shows that the subject position of the adjunct clause which is embedded under a relative clause does not host a resumptive pronoun. Thus, resumptive in (57) can only be merged outside the adjunct clause and the empty category inside the adjunct clause is interpreted with the higher NPs via co-indexation. This is indeed the case given that Op movement from the subject position of the adjunct clause is impossible. The Op moves from the subject position to the Spec position in the C domain, then into matrix clause, but matrix *v* checks accusative case, not nominative. Hence, ungrammaticality arises. In Section 5.2 I will argue that the nature of the empty category in the subject position of the adjunct clauses is of variable and the licensing of this category is another instance of Operator-variable chain.

In the examples so far, I pointed out that the gap position is not inside the adjunct clause. However, relativization out of an adjunct clause is possible, i.e. an empty category can occur inside the adjunct clause. Consider (58).

(58) Ali-nin$_i$ [ec$_{i/k}$ $ec_{k/i}$ / *kendisin*-i$_{k/i}$ döv-erken] gül-düğ-ü adam$_k$
Ali-GEN rp-ACC beat-while laugh-DIK-3sg man
"The man$_i$ that Ali laughed while beating him$_i$."
"The man$_k$ that Ali$_i$ laughed while beating himself$_i$."
"The man$_i$ that Ali laughed while he$_i$ is beating himself$_i$."

The interpretation of the structure above changes with respect to the anaphoric versus resumptive interpretation of the form *kendisi*. In the anaphoric reading, the *ec* in the

subject position and the *ec*/resumptive in the complement position have to be interpreted as the same. In this case the relativization site is outside the adjunct clause, possibly an adjunct of the higher verb *gül-* (laugh). In the resumptive interpretation, on the other hand, subject *ec* and the resumptive pronoun have to be interpreted differently. I will discuss the latter case here.

In (58) the transitive verb inside the adjunct clause checks case with the empty category. The Op moves to some Spec position in the C domain of the adjunct clause then to the higher clause.

Different from the complex NP and wh- island contexts, the operator extraction out of an adjunct clause which is embedded under a subject relative clause is possible. This is given in (59).

(59) ec$_i$ [Ahmet *ec*$_i$ / *kendisin*-i$_i$ döv-ünce] ağla-yan adam$_i$
Ahmet rp-ACC beat-when cry-REL man
"The man who cried when Ahmet has beaten him"

In (59) both the resumptive and the gap are available. Accordingly, it seems that the empty operator moves to the Spec position of its own C domain and then moves to the higher relative clause. However, I propose that this is not the case. The Operator merges in the subject position of the higher clause and moves to the Spec position in the higher C domain. The empty position inside the adjunct clause is interpreted with the head noun via co-indexation. Thus, the freezing status of the subject position remains strong. Finally, note that the extraction of an adjunct out of an adjunct clause is also possible. This is exemplified in (60).

(60) [ec *ec*$_i$ yürü-rken] düş-tüğ-üm] yol$_i$
walk-while fall-DIK-1sg road
"The road that I fell while walking."

In (60) the head noun is the locative adjunct of the verb in the adjunct clause. Note that the extraction of an operator merged in the adjunct position inside the adjunct clause is possible given that the structure is grammatical.

To conclude, I have pointed out in this section that islands are more likely to be defined in terms of grammatical operations and licensing relations which are realized inside the linguistic units. Islandhood is not an intrinsic property of the clausal categories, but is related to a rather complicated system which has connections with other aspects of the grammar. Moreover, islandhood in Turkish seems to be subject to a distinction with respect to the movement type as well as grammatical operations inside the clause. That is to say, not all A'- movements behave the same when they occur from an island. For instance, the conditions on the islandhood of a clausal category for the Topic operator movement might not be the same for the movement which is known as scrambling. In this respect, conditions for the movement of overt categories versus covert categories might also be crucial factors for determining islandhood in a given language.

3.4.6. Locality

The proposal I made above with respect to the chains has implications on the nature of locality of operations. I point out that this is the point where resumptive, anaphoric and ellipsis chains may have explanations over the linguistic phenomena such as locality, binding and control.

First of all, the fact that resumptives do not obey locality in a number of structures and obey them in another set of structures does not mean that locality is not observed in Turkish. Locality is respected in Turkish in a different sense in that chains formed with operators determine the upper bound an operation can occur. The locality phenomenon adopted here is based on the one proposed in Boeckx (2008). In this

analysis locality is observed as a property of the chain rather than as a property of a certain domain such as a relative clause, adjunct clause or a tensed clause. In this sense, the islands are interpreted in Turkish as to whether they involve a freezing position out of which the movement is blocked.

The second point with respect to locality is related to the A- versus A'- nature of the chains. I propose that languages differ with respect to the types of chains they make use for the different grammatical operations. I propose that Turkish, unlike English makes use of an A'- chain for anaphoric binding, control and null object constructions. In the following chapters, we will discuss these grammatical operations and point out that Turkish does not make use of A- chains whose formations are strictly local which is represented in the theory as Minimal Link Condition (Chomsky 1995), Minimal Binding Requirement (Aoun and Li 2003), Minimal Distance Principle (Larson 1991) etc. Instead of A- chains, Turkish instantiates A'- chains which are formed as subject to not strict locality but other phenomena such as subject position freezing. Also, the lack of c-command requirement for certain operator-variable chains speak for a different sense of locality for Turkish.

3.5. Conclusion

In this chapter I discussed the resumption phenomenon in Turkish and its implications on general clausal architecture, and grammatical operations such as binding and null argument licensing. I have pointed out that a resumptive pronoun in Turkish has two parts: the nominal base part and the minimal copy part. I proposed that this partition can explain different properties of the language related to resumption. For the syntactic and semantic nature of resumptives, I proposed that they are variable in nature and this variable nature speaks for an operator-variable chain for licensing. Condition C effects,

highest subject restriction and coordination with traces have been discussed as evidence for this claim.

For the licensing of resumptives, I made a proposal which is based on Boeckx (2003a, 2008). Following Boeckx (2003a), I proposed that a Turkish resumptive pronoun forms a single unit with its antecedent at the beginning of the derivation. The resumptive complex is headed by the third person possessive morpheme *'-sI'* which takes an NP as its complement. The NP part of the resumptive comples is formed by the nominal base *kendi* and its antecedent. The antecedent is the empty operator which I label the "topic operator". The empty topic operator moves to the C domain in the course of derivation and the resumptive pronoun strands as the minimal copy of its antecedent. Note that a resumptive pronoun in Turkish is a morphologically complex form.

I also proposed that island phenomenon in Turkish is interpreted in a different way. What constitutes an island for the extraction of the empty operator is still a problematic case. However, I proposed that the island status is not a property of the unit, i.e. the adjunct clause, wh- clause or a complex NP, but a property of the grammatical operations inside the clause. This claim is based on Boeckx (2008) and actually explains why resumptives save the otherwise illicit derivations on the one hand and make the structure worse on the other. See also Gallego (2007) for the similar line of reasoning.

Moreover, the island phenomenon in Turkish seems to be dependent on other aspects of movement such as the type of movement, i.e. operator movement versus scrambling, the type of the moving constituent, i.e. overt elements versus covert elements, and syntactic category of the moving element, i.e. direct object versus subject NPs.

I proposed that a resumptive chain can be formed in different ways so as to account for different grammatical operations such as binding and null object licensing. This unitary account of different structures has economical implications. Once we successfully derive binding and control relations or null object licensing via resumption, we would eliminate Binding Theory conditions and Control module from the grammar proper. The system I offer here makes a number of predictions with respect to the nature of these anaphoric dependencies: (i) the anaphoric relations and null object constructions show similar properties with resumption, (ii) the anaphors, PRO and null objects exhibit bound variable characteristics just like resumptives do. In the next chapter, I will show that these predictions are indeed borne out in that different grammatical formatives in Turkish are interpreted as bound variable. I will also show that these structures can be explainable under a resumption analysis.

One point however, has to be discussed. The system offered here is an attempt to solve contradictory problems of island data in narrow syntax via a number of conditions coming from clause structure and operator interactions. The data could be explained by an approach which relies on the pronunciation of variable positions as a special form *kendisi* in a set of contexts, and absolute silence in another set of contexts. Thus, a variable position (i) has to be pronounced (intrusion), (ii) optionally pronounced (resumption), and finally (iii) cannot be pronounced (absolute silence). This approach is based on PF linearization of the constituents rather than a narrow syntax characterization of operations such as Merge, Move and Agree, (see the discussion on the PF spell-out approach in Chapter 2).

Boeckx (2008:233) points out that a narrow syntax treatment of the data fares well compared to PF linearization since it holds both the mapping to PHON and mapping to SEM. This implies that the data in discussion have semantic implications which have to be accounted for before the interface levels. The specificity effects

exhibited by resumptives are one candidate for these semantic effects and they argue for a narrow syntax treatment. Hence, no LF transparency is required. However, it should be pointed out that specificity effects are not due to resumptives but are a property of chains as pointed out by Pesetsky (1998) and Bianchi (1998). Moreover, neither Boeckx's Big DP analysis, nor Adger and Ramchards' (2005) Agree based account is saved from LF transparency requirement as pointed out by Bianchi (2008).

CHAPTER IV

PRONOMINAL EXPRESSIONS AND BINDING THEORY

This chapter discusses the distributional properties of the pronominal expressions in Turkish in light of the Binding Theory. The following questions are raised: (i) how are the anaphoric relations reflected in syntax? (ii) how does anaphora appear in Turkish? (iii) can Binding Theory explain the Turkish facts? I propose that the Binding Theory Condition A and B seem to be inadequate in explaining the anaphoric system of Turkish. The idea that Turkish has a specifiable minimal domain where the binding operation applies is problematic in a number of respects. Also, the lack of reconstruction due to Condition A and B indicates the inadequacy of Condition A and B in Turkish. I hold that the anaphoric system of Turkish is regulated by operator-variable chains that are introduced in Chapter 3. I also propose that Turkish distinguishes between forms which have only variable interpretation *kendi* and forms which have only deictic interpretation (personal pronouns). *kendisi* is a special form which combines these interpretations and is licensed in accordance with the presence/absence of an A'- operator.

Anaphora is related both to linguistics and philosophy in that the former attempts to explore the linguistic manifestation of the issue within syntax, semantics and pragmatics, the latter its reflections in mind. The common point however is that the interpretation of one category of expression is dependent on the interpretation of another. This possibly happens in language and in mind simultaneously, where the speakers of a language *L* avoid to use the same linguistic item *LI* twice in a given domain *D*. As for the hearers, they tend to map two distinct linguistic items LI_1 and LI_2 and assign them the same referential value for interpretational purposes. This is given in (1a-b).

(1) a. *[$_{\text{Domain D1}}$ LI_1……LI_1]

b. [$_{\text{Domain D1}}$ LI_1……LI_2]

In (1a) the speakers of the language *L* avoid using the linguistic item LI_1 twice in a given domain where the borders of the domain vary cross-linguistically. In (1b), on the other hand, the speakers of the language *L* tend to interpret the linguistic items LI_1 and LI_2 which are pronounced differently as having the same referent.

In linguistics, an anaphor refers to a relation between two linguistic expressions where the interpretation of one is in a way determined by the interpretation of the other Huang (2000:1). The former is called anaphor, the latter antecedent. Expressions which can be treated as an anaphor include gaps, pronouns, names, reflexives and descriptions. Huang (2000) distinguishes between two main categories of anaphora: (i) NP anaphora where the anaphor and its antecedent are NPs, and (ii) VP anaphora - gapping, VP ellipsis, slucing. This chapter is concerned with NP anaphora in that we will look at the structures which consist of an NP antecedent and an anaphor of the same type.

4.1. Chomskyan Typology of NPs

Before the advent of Principles and Parameters approach to language, what we know as binding today does not seem to be a complicated system. Reuland's (2009) statement is worth quoting in this respect: "Virtually the only sentence that Jespersen (1933:111) devotes to what we now know as Binding Theory is a statement that English uses a reflexive for the object when the subject and object are identical." (Reuland 2009:231).

The earlier treatments of the issue within the Principles and Parameters approach to language focused on pronominalization vs. reflexivization phenomena for the interpretation of one linguistic item in terms of another.[72] Lees and Klima (1963) (cited in Hornstein 2006) argues that reflexivization and pronominalization are two

[72] See Sauerland (2006) for a detailed discussion of the issue regarding the term "binding".

competing rules which operate on the NPs. The former cannot apply where the latter can. Accordingly, an NP receives a reflexive form whenever it is possible, i.e. it is bound within a certain domain. An NP receives a pronominal form when the use of the reflexive form is not possible. Postal (1968) takes the initial steps for taking reference represented in syntactic structure and pronouns to be represented as coreferentiality via indices. Much of the work done on the issue of anaphora within GB era focused on English and related languages (what Huang 2000 calls *Eurocentric* and Safir 2004 calls *Anglocentric* approaches), and the Binding Theory which is assumed to be a set of universal principles has been developed by Chomsky (1981, 1982). The theory attempts to provide the principles which regulate the different behavior and distributional properties of the anaphoric expressions in language. It basically formalizes the relationships between two linguistic items A and B as having the same reference, by using a structural definition "binding" which is based on the idea that the "binder" c-commands the "bindee". Thus, the relationship between the two expressions with respect to their interpretation in a sentence has been defined as a "binding relation" where the linguistic item LI_1 binds the linguistic item LI_2, so that the two are interpreted as having the same referential value. This is illustrated in (2).

(2) $[_{\text{Domain D1}}\ LI_1 \ldots\ LI_2\ [_{\text{Domain D2}} \ldots\ LI_2\ [_{\text{Domain D3}} \ldots\ LI_2\ ]]]$

In (2) there are three domains D_1, D_2, D_3 and D_1 contains LI_1 which binds LI_2 in (i) its own domain (D_1), or (ii) in different domains (D_2, D_3). Note that there may possibly be a linguistic item LI_3 in the Domain D_2 which cannot be interpreted as the same with LI_1 at all.

4.1.1. Binding in pre-GB Era

The initial steps to a well defined binding theory have been taken in Chomsky (1973) where it is pointed out that there is a domain related to both a disjoint reference and an anaphoric dependence. The domain is characterized by two conditions: (i) Specified Subject Condition, and (ii) Tensed-S Condition which are given in (3) and (4) below.

(3) *The Tensed S Condition* (Chomsky 1973)
No rule can involve X, Y in the structure
. . . X . . . [α . . Y . . .] . . .
where α is a tensed sentence

(4) *Specified Subject Condition* (Chomsky 1973)
No rule can involve X, Y in the structure
. . . X . . . [α . . . Z . . . - WYV . . .] . . .
where Z is the specified subject of WYV in α _

What these conditions explain is the distributional properties of the anaphoric dependence. For the non-coreference or disjoint reference, Chomsky (1973) proposes the Rule of Interpretation which is given in (5).

(5) Rule of Interpretation: (Chomsky 1973)
. . . a rule of interpretation RI applying to the structure NP-V-NP (among others) seeks to interpret the two NPs as nonintersecting in reference, and where this is impossible (as in the case of first and second person pronouns), it assigns "strangeness", marking the sentence with *.

This condition explains the disjoint reference of a pronominal expression to a NP in the domain. In Chomsky (1976), the rule is labeled Disjoint Reference. This rule works with the Tensed-S Condition and Specified Subject Condition and bans the co-reference of a pair NP-Pronoun.

The closest step to the classical Binding Theory was taken in 1980 by Chomsky with the work "On Binding". Note that for the first time, the concepts such as "bound", "free" have been proposed. This is given in (6a-b).

(6) a. An anaphor α is *bound* in β if there is a category c-commanding it and co-indexed with it in β.

b. Otherwise, α is *free* in β.

4.1.2. Binding in GB Era

The Binding Theory proposed for the behavior given above is introduced in Chomsky (1982) and further developed in Chomsky (1986b). We illustrate this in (7a-c) below.

(7) A. An anaphor is bound in a local domain.
B. A pronominal is free in a local domain.
C. An R-Expression is free (in the domain of the head of its maximal chain).
Chomsky (1986:166)

What is important for the principles above is the presence of a local domain where the anaphor, pronominal or R-expression is (un)bound. As a term, local domain is introduced in Chomsky (1986b) and formulized as follows:

(8) *Local domain*
A local domain for α is the minimal Complete Functional Complex (CFC) in which α is governed.

The definition above requires the presence of a lexical governor for the anaphor within a complete functional complex. The complete functional complex implies a maximal projection i.e. TP, DP, in which the anaphor is governed. Complete functional complex is defined in (9).

(9) *Complete Functional Complex (CFC)*
Complete Functional Complex is a maximal projection where all grammatical functions compatible with its head are realized.

The term "complete" is crucial in that the maximal projection should be realized with all its functions, including the subject. Accordingly, not only S categories (TP, IP), but also a DP can be a complete functional complex if it has a subject in its Spec position.

According to the definitions above, the distribution of the anaphoric expressions in language is argued to be defined language universally, i.e. no cross-linguistic variation is observed. Note that the CFC is proposed in Chomsky (1986b) as an alternative to the notion of Governing Category in Chomsky (1982).

The definition of Binding in (7a-c) involves two constituents LI_1 and LI_2 where LI_1 binds LI_2 if (i) LI_1 is in an A- position, (ii) LI_1 c-commands LI_2, and (iii) LI_1 and LI_2 are co-indexed. According to the Binding Theory, anaphors (LI_2 in D_1) are subject to Condition A, pronouns (LI_2 in D_2 or D_3) are regulated by Condition B and R-expressions (LI_3 in any D which are not interpreted as the same with (LI_2 in D_1)) are subject to Condition C in (7a-c).

4.1.2.1. NPs

Chomsky (1982:78-79) distinguishes two abstract NP features: (i) +/- anaphor, and (ii) +/- pronominal. According to Chomsky, an anaphor is a representation of an NP which has to be bound within a minimal syntactic domain. A pronominal is a representation of an NP which can be referentially bound but which has to be free within a minimal syntactic domain. Chomsky's typology of NPs is given in (10a-d).

(10)

	Overt	*Covert*
a. [+anaphor, -pronominal]	lexical anaphor	NP-trace
b. [-anaphor, +pronominal]	pronoun	*pro*
c. [+anaphor, +pronominal]	-	PRO
d. [-anaphor, -pronominal]	name	wh-trace/variable

Huang (2000:17) Example (2.1a-d)

This typology includes both overt and covert (phonologically silent) linguistic categories, each of which is specified with binary features. These categories are exemplified in (11a-c) for overt NPs and in (12a-d) for covert NPs.

(11) a. John$_i$ loves *himself*$_i$ — Lexical anaphor
b. John$_i$ said that *he*$_i$ is happy. — Pronoun
c. John has written a book called '*The Storm*'. — Name

(12) a. John$_i$ seems to t_i leave the meeting. — NP-trace
b. *pro* estudi*o* linguistica. — *pro*
study-PRES linguistics
"I study linguistics"
c. John wanted [*PRO* to go]. — PRO
d. What$_i$ did John buy t_i? — wh-trace/variable

Chomsky (1981, 1982, 1986a and b) hold the different types of NPs exemplified above to be subject to Binding Conditions in (7a-c). In (11a) the italicized pronominal *himself* is bound by its antecedent *John* within its complete functional complex (the domain in which the anaphor, its governor and its antecedent are included) and they are co-referential in accordance with Condition A. In (11b) the antecedent does not bind the pronoun *he* in its complete functional complex which is the domain in which the pronoun, its governor and a subject are included but not the antecedent. That is to say, the pronoun *he* is free in its local domain in accordance with Condition B. In (11c) the R-expression *The Storm* is not bound at all as the lack of co-referentiality indicates, again in accordance with Binding Theory Condition C.

Within the Principles and Parameters approach to generative grammar, the covert NPs in (12a-d) have been argued to be licensed in the course of derivation in order to be interpreted at LF. In (12a) the NP trace is bound in its minimal domain by its antecedent which moves to the matrix subject position. In (12b) the phonologically null pronoun, *pro*, is assumed to be licensed by the 1st person singular agreement morphology on the verb *estudi-o* (study-1sg). In (12c) the null element PRO in the subject position of the embedded clause is licensed by the closest overt NP in the structure via a control mechanism. Finally, the wh-trace in (12d) is licensed by a proper governor, the verb, and interpreted with its antecedent via co-indexation.

4.1.3. Binding in Minimalist Era

Within the Minimalist era, the syntax of anaphoric relations has been reconsidered and a number of proposals which are based on movement and other narrow syntactic operations such as Agree have been made. The elimination of D- and S- structures in Minimalist Program led to the idea that the Binding Theory applies at C-I interface, that is to say LF. However, studies on binding showed that binding has properties such as locality, which are typical of narrow syntax. This causes researchers to consider binding principles as a result of the narrow syntax operations such as Move, Agree and Merge, but not the application in a separate grammar module. Safir (2008) is an exception to this generalization about studies on binding in Minimalism given that he argues for an interpretive component that exploits the structures, i.e. coconstrual relations (antecedent-anaphor and bound variable relations). These relations are formed outside of the narrow syntax and attempt to reduce coconstrual relations to narrow syntactic operations such as Merge, Remerge (movement), Agree fail to capture generalizations, and thus have no empirical advantage. Particularly, Safir (2008:346) proposes that narrow syntax treatments of coconstrual relations fail to explain unbounded dependencies, dependencies with non-local relations.

Different from binding, movement is a construal which basically involves a displacement operation as a result of which the two linguistic expressions (LI_1 and L_2) are interpreted as the same. Chomsky (1993) has offered a movement based analysis of the issue to eliminate S-Structure from the grammar proper. Hornstein (2001, 2006) have reduced anaphors to A- movement cases and pronouns to last resort expressions which occur where movement is blocked and Kayne (2002) has eliminated Condition B and C in favor of Condition A.

There are other approaches to binding which do not rely on movement. The approaches try to eliminate the Binding Theory from UG and reformulate its principles

in narrow syntax operations. Reuland (2001, 2005) provide a chain formation analysis to binding. Dechaine and Wiltschko (2002, 2004) reformulated the Binding Theory principles as cross-over phenomena.

4.1.3.1. Hornstein (2001, 2006)

Following Lees and Klima (1963), Hornstein (2006) proposes that binding is a competitive process in that the rule which licenses the reflexives is preferred to the rule licensing a pronoun in the same position. Hence, a complementarity is observed in the distribution of the reflexives and the pronouns.

What Hornstein aims next is that the Binding conditions A and B can be eliminated from UG if one assumes that the anaphors are related to their antecedents via movement. Following Chomsky (1993), Hornstein (2001) and Grohmann (2003), he proposes that anaphor binding is indeed an instance of A- chain formation since it shows the familiar locality effects that A- movement exhibits. (13) below represents a relevant structure.

(13) $John_i$ likes [t_i himself]

Hornstein (2006:48) Example (2)

(13) involves a local movement of the NP *John* from Spec-*v*P to Spec-TP position. Hornstein argues that if anaphor binding involves movement, then Principle A is completely redundant. If principle A is redundant, then principle B should also be eliminated since pronouns and anaphors are in complementary distribution. Hornstein's alternative binding approach stems from the reflexive rule over pronominalization rule of Standard Theory. That is to say, in the Standard Theory bound pronouns and reflexives are grammatical by-products of binding operations with reflexive binding being preferred over pronoun binding. Hornstein argues that reflexives are by-products

of movement. Hence, pronoun use becomes less economical than movement. So, pronoun use is blocked when movement is available. In this way, Hornstein reduces Condition A to A- movement and Condition B to an elsewhere case where the movement is blocked for locality reasons. The movement approach is based on A-movement akin to subject raising. Hence, the movement of the anaphor is subject to standard locality requirements on A- movement. The Minimal Link Condition is active for the NP generated in the complement position of the verb. In this way, Hornstein explains the local binding requirements of the anaphors, i.e. the binding domain seems to be translated in this approach as Minimal Link Condition.

4.1.3.2. Kayne (2002)

Kayne (2002) extends the movement considerations of Binding theory such as Hornstein (2001 and 2006) to Condition C. He argues that Condition B is not a side-effect of the application of Condition A and neither condition B nor condition C is a UG primitive. His movement approach to binding attributes Condition B and C effects to movement properties.

Unlike Hornstein (2001), Kayne (2002) points out that pronouns are part of the numeration. They enter into the derivation with their antecedents (double) and the antecedent moves to the higher clauses for theta reasons in antecedent-pronoun and clitic doubling structures. The structure below exemplifies this movement:

(14) thinks [John he] is smart
John$_i$ thinks [t_i he] is smart

Kayne (2002:135) Example (6)

In (14) John is the double of the pronoun and moves to the higher clause. Kayne extends this structure into the control cases and argues that control structures involve a pronominal double which is not pronounced. That is, the subject DP in control

structures does not have to check more than one theta role as in Hornstein (1999, 2001), but a single one.

4.1.3.3. Reuland (2001, 2005, 2006)

Reuland (2001) discusses how binding relations are encoded in the grammatical system and why reflexive predicates require a special licensing in natural language. Reuland (2001) argues contrary to Chomsky (1995) that there is a syntactic residue for binding, locality. He argues that C_{HL} should contain no statement for binding. Thus, the binding dependencies expressed in C_{HL} can be considered consequences of Agree/Move. Then, the locality of binding is the locality of Move/Agree (Reuland, 2005:509).

Reuland (2001) discusses the simplex anaphors (SE) (Dutch *zich*, Norvegian *seg*, Icelandic *sig*). In his system, cognate pairs of formal features such as interpretable versus uninterpretable φ-features enter into a checking configuration where the members are erased up to recoverability. Based on this recovery relation, checking relations mechanically form a dependency between SE anaphors and their antecedents. Reuland (2001) argues that whenever the syntactic encoding of a dependency between an anaphor and its antecedent is possible, the pronoun using is ruled out. Hence, a complementarity between bound pronouns and anaphors arises.

Reuland (2005) develops his (2001) model so as to capture Chomsky's (2005) discussion on Agree. He points out that SE anaphors have unvalued interpretable φ-features in addition to unvalued uninterpretable structural accusative case. SE is valued via φ- features of the external argument. Reuland (2005:511) points out that the binding of SE anaphors is encoded as Agree and the c-command requirement on binding is satisfied by the fact that a probe looks for a goal which it c-commands.

4.1.3.4. Dechaine and Witschko (2002, 2004)

Dechaine and Witschko (2002) argue that pronoun is not a primitive notion of grammar. Instead, they offer three types of pro forms: (i) pro-DP, (ii) *pro-ΦP*, and (iii) pro-NP. Pro-DPs are R-expressions in nature and function as arguments. They are subject to Condition C. *pro-ΦP* is considered to be any functional projections between N and D heads which encode φ-features. They can be arguments or predicates and binding theoretically speaking, they are of variable nature, and they correspond to Condition B of pronouns. Pro-NPs have the same syntax as a lexical noun and they can be predicates. They are undefined with respect to the Binding Theory. Rather, their binding properties follow from their inherent semantics. Dechaine and Witschko (2002:418) argue that Binding Theory principles are sensitive to this distinction in that R-expressions (nominal expressions which are subject to Condition C) are defined as pro-DPs, variables (nominal expressions which are subject to Condition B) are defined as *pro-ΦP*s.

4.2. Anaphoric Relations in Turkish

This section discusses the anaphoric relations in Turkish. The term "anaphoric relation" is considered as referring to any kind of dependency relation between two linguistic items. Through the section, I use the term "pronominal" for the linguistic items which are/expected to be bound non-locally, the term "anaphor/reflexive" for the linguistic items which are/expected to be bound locally in the Chomskyan sense.

4.2.1. *kendi* and *kendisi*

kendi and *kendisi* are two forms of Turkish which are used for a number of purposes. The proper gloss for these two forms is subject to controversy. Throughout the chapter,

I will use *self* as a gloss for it without any implication as to what it really means.[73] Özsoy (1983, 1984), Kornfilt (1997) and Göksel and Kerslake (2005) have pointed out that *kendi* in Turkish has a number of functions in sentences ranging from expressing reflexivity to having emphatic reading. Göksel and Kerslake (2005:265) point out that *kendi* and its inflected form *kendi-si* have one adjectival, four pronominal (emphatic, reflexive, resumptive and simple pronominal) functions in Turkish. However, there seems to be no agreement on the exact nature of the form *kendi* due to the fact that (i) its distributional properties cause problems for Binding Theory, and (ii) the various functions of the form *kendi* make it difficult to analyze it under a single theoretical apparatus such as Binding Theory or under a single taxonomic class such as reflexive pronoun.[74]

Kornfilt (1997:138-139) notes that the invariable reflexive element *kendi* is used as adjectival modifier and the variable one is used for reflexive and emphatic purposes. Other studies have focused on the Binding Theoretic implications of the form and assume that *kendi* is a reflexive pronoun which must be bound within a given domain in accordance with the Binding Theory. For example, studies on ECM clauses and finiteness in Turkish use reflexive binding across clauses as a test for the finiteness issue. Accordingly, finite clauses are opaque domains for binding and the unavailability of reflexive pronouns inside a finite clause supports this. Özsoy (2001) and Kornfilt (2007) are two studies which make use of the unavailability of reflexive binding as evidence for the finiteness status of the ECM clause.[75]

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[73] Kornfilt (1997:302) notes the difficulty in labeling the form *kendi* and its possessive marker added variations as reflexive:

> "…it is difficult to tell whether these are genuine pronominals or are (inflected) nouns, involving the stem *kendi* 'self' and its inflected forms for person and number…"

[74] Another type of anaphoric expression i.e. reciprocal pronoun *birbiri* (each other) is excluded from the discussion here. However, note also that its distributional properties cause problems for Binding Theory too. See Özsoy (2006) for the recent analysis of the reciprocal pronoun in Turkish.

One point which is important for the previous studies is that they somehow combine the distribution and functions of the form *kendi* with its third person inflected version *kendi-si*. However, I distinguish between *kendi* and its third person inflected version *kendi-si* due to their different distributional and interpretational properties.

4.2.1.1. The Distributional Properties of *kendi*

It has long been observed that the special form *kendi* has different functions in Turkish which can be listed as; (i) reflexive, (ii) adverbial, (iii) adjectival, (iv) logophoric, (v) emphatic. I illustrate these functions below.

(15) a. Ben *kendi-m*-i sev-iyor-um. *Reflexive*[76]
I myself-ACC like-PROG-1sg
"I like by myself."

b. Ben *kendi-m* gel-di-m *Adverbial*
I myself come-PAST-1sg
"I came by myself"

c. Ali *kendi* kitab-ın-ı arı-yor. *Adjectival*
Ali his own book-3sg-ACC look.for-PROG.3sg
"Ali is looking for his own book."

d. Ali bütün bunlar-ın *kendi* hata-sı ol-duğ-un-u *Logophoric(Adjectival)*
Ali all these-GEN own fault-3sg be-NOM-3sg-ACC
kabul ed-iyor.
accept-PROG
"Ali accepts all these things as his own fault"

e. Bun-u sen *kendi-n* anla-mı-yor-sun. *Emphatic*
this-ACC you yourself understand-NEG-PROG-2sg.
"You yourself do not understand this."

In (15a-e) we observe the different uses of the same form *kendi*. In (15a) it is used as a reflexive pronoun which is anteceded by the subject of the sentence. In (15b) it functions as an adverbial expression. In (c) *kendi* is used as adjectival modifier and it is

[75] See Chapter 6 for a discussion of this issue.

[76] *Kendi* is labeled as reflexive since it occurs here as an argument. It is inflected for person (possessive) in (15a, b and e) cases, but not when used as adjectival and logophoric.

not inflected by person or number. In (d) I point out that *kendi* has a logophoric function indicating the self awareness of the subject. Finally, in (e) *kendi* functions as an emphatic pronoun.

4.2.1.2. Distributional Properties of *kendisi*

Göksel and Kerslake (2005) point out that *kendisi* can be used as a simple pronominal expression, as a reflexive pronoun or as a resumptive pronoun. I point out that *kendisi* can be used in the same contexts as *kendi* except in the adjectival function. That is to say, *kendisi* can also be used as adverbial and emphatic pronoun as well. Consider (16) which is taken from Göksel and Kerslake (2005).

(16) Erol [Ziya'nın *kendi-sin*-e bir araba al-ma-*sın*]-ı söyle-di.
Erol Ziya-GEN self/s/he-3s.POSS-DAT a car buy-VN-3sg.POSS-ACC tell-PF
(i) 'Erol told *Ziya* to buy a car for *himself*'
(ii) 'Erol told Ziya to buy *him* a car' (him=Erol or someone else)
Göksel and Kerslake (2005:269) Example (38)

In (16) above, *kendi-si* is used as the second complement of the embedded predicate. Note that it can be co-indexed with the subject of both the matrix clause, *Erol* and the embedded clause, *Ziya*. When it is co-indexed with the embedded subject, it is interpreted as a reflexive pronoun, behaving in the same way with the true reflexive form *kendi*. This is given in (17).

(17) Erol_{i} [Ziya-nın_{k} *kendin*-$\text{e}_{k/?i}$ bir araba al-ma-sın]-ı söyle-di.
Erol Ziya-GEN himself-DAT a car buy-NOM-3sg-ACC tell-PAST
"Erol told Ziya to buy a car for himself."

However, when it is co-indexed with the matrix subject, it is interpreted as a personal pronoun, behaving in the same way with regular third person pronoun *o* (he/she/it). That is to say, when we change the form *kendisi* with *kendi* in (17), we have only the

reflexive interpretation. *Kendi* in (17) cannot act as a pronominal as the low acceptability of i reading indicates. Consider (18) where *kendi-si* is replaced by *o* (she/she/it).

(18) Erol$_i$ [Ziya-nın$_k$ *on*-a$_{?*i/*k/m}$ bir araba al-ma-sın]-ı söyle-di.
Erol Ziya-GEN he-DAT a car buy-NOM-3sg-ACC tell-PAST
"Erol told Ziya to buy him a car."

(18) shows that personal pronoun *o* (he/she/it) can not be used as anteceded by a proper name in the same clause, hence respecting Condition B of the Binding Theory.[77] It cannot take a distant antecedent in the same clause either, showing that its distribution seems to follow from a general ban on the occurrences of pronouns, rather than from Condition B.

Different from its reflexive and pronominal use, *kendi-si* also functions as a resumptive pronoun in relative clauses. In its resumptive use, it is co-indexed with the head noun in the relative clause and unlike its pronominal use, it can not be replaced with a personal pronoun as I have pointed out in Chapters 2 and 3. Consider (19).

(19) *kendi-sin*-i$_i$ / **on*-u gör-düğ-üm adam$_i$
rp-ACC he-ACC see-DIK-1sg man
"The man that I saw (him)"

What (19) shows is that *kendi-si* receives a special status with *'-sI'* in that it can occur inside the relative clause, where the Operator is assumed to be extracted. Recall from Chapter 3 that neither *kendi* nor a personal pronoun can occur in this position.

As we have seen, the distributional properties of *kendi* and *kendisi* are similar but not identical. These properties are given in (20) below. I propose that both *kendi* and

[77] The personal pronoun in (18) is not that bad when it is co-indexed with the matrix subject in (i) below. I thank Meltem Kelepir for pointing out this example to me.

(i) Erol$_i$ [Ziya-dan$_k$ *on*-a$_{?i/*k/m}$ bir araba al-ma-sın]-ı iste-di
Erol Ziya-ABL he-DAT a car buy-NOM-3sg-ACC want-PAST
"Erol wanted Ziya to buy him a car.

The slight modification in (i) above results in grammaticality. This implies that the use of personal pronouns as co-indexed with the matrix subjects is acceptable. I will discuss this issue later in this section.

kendisi are bound variables which are licensed (bound) not within a Binding theoretic system, but in an operator-variable chain. Their different distributional properties are a result of the chain they occur in, but not of their intrinsic syntactic properties. I will discuss their variable nature in the following chapter.

(20) The Distribution of *kendi* and *kendisi*

	Anaphor	Pronominal	Resumptive	Emphatic	Logophoric	Adjectival
kendi	Yes	No	No	Yes	No	Yes
kendisi	Yes	Yes	Yes	Yes	Yes	No

Now, let us see how Binding Theory conditions are problematic for the distributional properties of these two forms.

4.2.2. Condition A and Anaphors

This section argues that Condition A of Binding Theory seems to be inadequate in explaining the distributional facts of *kendi* and *kendisi*. After showing the problematic cases of these two forms, I will discuss three alternative explanations: (i) there is no governing category in Turkish, (ii) there is a governing category, but reflexives can be bound beyond the governing category and (iii) there is no reflexive in Turkish. I will conclude that Turkish has reflexives but they can be licensed from a long distance position.[78]

[78] Before discussing the reflexives in Turkish, let us clarify one point. In some languages such as Georgian, Laz and Haitian reflexives are formed via inalienable possessed nouns. This means that an expression such as *I love my head* is used to mean *I love myself.* Note that these nouns are bound forms and have to take possessive morphemes. Balkız Öztürk (p.c) suggested that Turkish might have that kind of noun (*kendi)* which is not subject to the Condition A or B, but Condition C. Note that this has been argued by Dechaine and Manfredi (1994) for Haitian. The parallelism between Haitian and Turkish in this respect is an issue which is worth discussing in the future studies.

Balkız Öztürk also suggested that overt pronouns in Turkish are more likely to be nominals as in the case of reflexive that I pointed out above. Note that personal pronouns in Turkish have topic/focus functions as has been observed by Enç (1986b) and Erguvanlı-Taylan (1986). Moreover, they behave like nominals in many contexts. See Uygun (2009) for a detailed discussion of the lexical categories in Turkish. In this respect, a question arises as to whether we should discuss overt pronouns in terms of Condition B or not. If they behave like nominals, Condition C might be active for those expressions. Note that what I aim at in this chapter is that Conditon A and B like principles which are based on the structural definitions might not be that explanatory for the properties of Turkish pronominal anaphora. However,

4.2.2.1. *kendi* in Simple Sentences

In simple sentences, *kendi* expresses reflexivity in accordance with Condition A of Binding Theory. As pointed out by Özsoy (1984), *kendi* as a reflexive pronoun must be bound within its governing category as illustrated in (21a-b).

(21) a. Zeynep *kendin*-e elbise dikiyor
"Zeynep is sewing a dress for herself"

b. **Kendi* Zeynebe elbise dikiyor.

Özsoy (1984:103) Example (3a-b) respectively

In (21a) the reflexive pronoun *kendi* is bound by its antecedent *Zeynep* in its minimal domain containing the reflexive, its governor and a subject. However, in (21b) *kendi* cannot be bound by its antecedent, hence the ungrammaticality. Note that *kendisi* can also be used as a reflexive pronoun in (21a-b) cases with the same grammaticality judgments. However, *kendisi* can also be interpreted as a pronominal expression referring to the third party.

At this point, we have to define a local domain for Turkish in which the anaphors are expected to be bound. According to the definitions given in Chomsky (1986b), a local domain for an anaphor is the minimal complete functional complex (CFC) in which the anaphor is governed. The minimal CFC is a maximal projection where all grammatical functions compatible with its head are realized. In (21a) *kendi* is governed within the VP. The minimal CFC must include all the functions including the subject. TP can be a candidate for this since it includes the subject too. Hence, the anaphor is bound within TP. The structure is grammatical.

Note that *pro* can be considered an antecedent for the anaphor as the example (22) below indicates.

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the possibility of eliminating Condition A and B in favor of Condition C is another issue for future investigations.

(22) Ninem çok yaşlı. Artık kendin-e bakamıyor.
'My *granny's* very old. *She* can't take care of *herself* any longer.'
Göksel and Kerslake (2005:268) Example (33)

In (22) above agreement on the verb in the second clause licenses *pro* as subject which acts as the antecedent for the reflexive pronoun. Although there is no overt antecedent for *kendi*, *pro* can be argued to be the subject within the CFC for the anaphor.

In Turkish, anaphors can be bound by constituents other than the subject. Example (23) below illustrates that in Turkish *kendi* can be bound by the dative object as well.

(23) Sanki *bana kendi-m-i* anlatıyorlardı.[79]
I(dat) self-1sg.poss-acc
"[It was] as if they were talking to *me* about *myself*"
Göksel and Kerslake (2005:268) Example (34)

This implies that reflexive binding is not restricted to the subject position; a second complement as in the case of (23) can also bind the reflexive pronoun in the internal complement position. We argue that this example provides a counterargument for the applicability of the Condition A which predicts this example to be ungrammatical since the anaphor is bound in a domain where there is no coreferential subject. In (23) the minimal CFC includes the grammatical function subject which is not coreferential with *kendi*. Note that the subject of the sentence is 3rd person plural. Note also that a personal pronoun can also occur in these contexts. Consider the example (24).

(24) Sanki ban-a$_i$ ben-i$_i$ anlat-ıyor-lar-dı.[80]
as if I-DAT I-ACC talk-PROG-3pl-PAST
"It was as if they were talking to me about myself"

[79] The form *kendi* in this example might not be considered as a reflexive pronoun. The form can be replaced by a personal pronoun. Here, I intend to show that the form *kendi* and personal pronouns are not in complementary distribution. Also, it is observed in *Tarama Sözlüğü* that personal pronouns are used in the context of reflexive pronouns in Old Anatolian Turkish period.

[80] Such kind of examples is also observed in English, specifically in poetic language. However, I observe that these examples are more common in Turkish. Especially, in Old Anatolian Turkish period pronouns are regularly used in anaphoric contexts.

In (24) a personal pronoun is used in a position where the reflexive pronoun is predicted, the structure is nevertheless grammatical. We argue that the grammaticality of this example is problematic for Condition B of the Binding Theory in that the structure is expected to be ungrammatical since the pronoun is bound within its local domain.

One might think that *kendi* in (23) is not an actual anaphor, but a pronominal element. Hence, no Condition A violation arises. However, the grammaticality of (24) where a real pronominal element occurs in the position where the anaphor occurs in (24) refutes this option. I will discuss this option in the following sections in a more detailed way.

4.2.2.2. *kendi* in Embedded Clauses

In Turkish *kendi* can also occur in different types of embedded clause which do not contain the antecedent. In this section we discuss the syntactic properties of the reflexive pronoun in embedded clauses and argue that the reflexive pronoun may not be bound in its local domain, thus violating Condition A. Following Özsoy (1983 and 1984), Kornfilt (1984), I assume that the embedded clauses are local domains for the anaphors in that the anaphor within an embedded clause has to be bound within its own clause. In the following subsections, I will illustrate how *kendi* behaves in these clauses.

Before going into the details of the distributional properties of *kendi* and *kendisi* inside the embedded clauses, I would like to make one point. The availability of *kendi* which occurs inside an embedded clause and is co-indexed with an NP in the matrix clause is subject to a dialect split.[81] According to Dialect A (including the two committee members of this dissertation), 1st and 2nd person inflected reflexive forms *kendi-m* and *kendi-n* act as the true reflexives in that they cannot occur inside an embedded clause and

[81] Note that the dialect split observed in the use of *kendi* in long distance contexts might correlate with other inatances of dialect splits such as those observed in the use of personal pronouns inside the embedded clauses and ECM constructions. I leave this issue for further investigation.

cannot be co-indexed with a matrix NP. For the 3rd person reflexive use, Dialect A prefers *kendi-si* rather than *kendi*, i.e. while *kendi* cannot be bound non-locally, *kendisi* can do so. According to Dialect B (including the author), on the other hand, while the form *kendi-si* is preferred, 3rd person reflexive *kendi* can also occur inside an embedded clause and be co-indexed with a matrix NP, i.e. *kendi* can be non-locally bound. Moreover, for Dialect B the situation with 1st and 2nd person reflexive forms *kendi-m* and *kendi-n* is suspicious in that there are examples in which these forms can also be bound non-locally.[82]

4.2.2.2.1. Complement Clauses

Complement clauses in Turkish are of two types: (i) nominalized complement clauses and (ii) finite complement clauses. Nominalized complement clauses consist of a genitive marked subject which agrees with the nominal agreement marker on the embedded verb which is nominalized by a number of morphemes. Finite complement clauses, on the other hand, consist of a nominative marked subject which agrees with the verbal agreement marker on the verb. We focus on the nominalized complement clause in this section.

I assume that the clauses have a C domain. The support for the proposal comes with (i) the availability of having a variable like empty category within the clause, irrespective of being a complement, adverbial or relative clause, and (ii) the availability

[82] The relevant examples will be discussed throughout the chapter. I provide some of them which involve the occurrence of *kendi* inside an impersonal passive structure as embedded clauses here. Consider (ia-b).

(i) a. ??Ben [kendim-e "yazar" de-n-(il)-me-sin]-den hoşlan-mı-yor-um.
I myself-DAT author say-PASS-PASS-NOM-3sg-ABL like-NEG-PROG-1sg
"I do not like that myself is called 'author'."

b. ?Sen [kendin-e "mühendis" de-n-(il)-me-sin]-den hoşlan-ıyor-mu-sun?
you yourself-DAT engineer say-PASS-PASS-NOM-3sg-ABL like-PROG-Q-2sg
"Do you like that you are called 'engineer'?"

In (ia-b) *kendi* seems to be bound outside of its CFC given that the embedded clause functions as a CFC for the anaphor. However, we can also argue that the CFC is extended to the matrix clause in the above cases due to the fact that impersonal passive structures might not be sufficient for being a CFC.

of scrambling. I will propose in Chapter 6 that the availability of having a variable inside a complement clause requires the presence of an operator. Hence, the presence of a CP domain where Spec positions host the empty operator. The availability of post-verbal scrambling also supports the presence of CP projection given that postverbally scrambled constituents are CP adjoined *à la* Kural (1992). Consider the following example where the accusative marked NP occurs in post-verbal position.

(25) Ben-Ø [Kürşat-ın t_i kır-dığ-ın]a cam-ı inan-ıyor-um.
I-Nom Gen break-asp-agr-*Dat* glass-*Acc* believe-prog-1sagr
"I believe that Kürşat broke the glass."
Aygen (2002:87) Example (83)

We assume that non-finite clauses have a CP domain which hosts the operator(s) for the licensing of variables inside the T and V domains.

Recall that nominalized clauses are argued to be a syntactic domain for the grammatical operations such as binding. In other words, anaphors must be bound within the nominalized clause. However, do we have anaphors or anaphor like elements which are bound outside of the nominalized clause? Consider (26a-c).

(26) a. $Ahmet_i$ [pro_i *kendin*-i_i ihbar ed-eceğ-in]-i söyle-di.
Ahmet himself-ACC denounce-NOM-3sg-ACC tell-PAST
"Ahmet said that (he) will denounce himself"
b. $Ahmet_i$ [PRO_i *kendin*-e_i bir takım elbise al-mak] ist-iyor.
Ahmet himself-DAT a suit buy-INF want-PROG
"Ahmet wants to buy a suit for himself."

c. $Ahmet_i$ [pro_m *kendin*-e_i bir takım elbise al-ma-m]-ı ist-iyor.[83]
Ahmet himself-DAT a suit buy-NOM-1sg-ACC want-PROG
"Ahmet wants me to buy a suit for himself."

[83] The grammaticality of this example is subject to the dialect split. Dialect A finds the use of *kendi* in these contexts also in (28b) ungrammatical and prefers *kendisi* instead of *kendi*. According to Dialect B, both forms are grammatical in these positions, but *kendisi* is more easily accepted than *kendi*.

In (26a-c)[84] above, the embedded verbs are nominalized with the nominalization morphemes {-(y)AcAK}, {-mAK}, and {–mA} respectively. In all of the examples, *kendi* occurs in the complement position of the nominalized verb. Note also that *kendisi* is also available in these contexts with reflexive interpretation alongside a pronominal one. In (26a) *kendi* is bound by *pro,* and in (26b) by PRO which occur in the subject position of the embedded clause. One can conclude from this discussion that *pro* and PRO in Turkish can antecede the reflexive in the complement position hence the structures are grammatical.

However, this explanation falls short when we consider the complement clauses with {–mA} in the example (26c) where the reflexive pronoun in the second complement position of the embedded clause seems to be bound by *pro* in the subject position within its governing complex. However, *pro* in the embedded subject position is licensed by the first person agreement marker on the embedded predicate, a clear mismatch between the φ-features of the reflexive and *pro* subject. Hence, we expect the structure to be ungrammatical which is contrary to what we observe.

kendi in (26c) might not be a true anaphor in that it behaves in the same way as a regular pronominal expression.[85] Therefore, there are two *kendi*s in Turkish in that the first one behaves like a true anaphor and the latter behaves like a pronoun. Moreover, one can argue that in Dialect B *kendi* in (26c) is like *kendisi* in Dialect A.[86] Note that this explanation finds support when we consider the fact that *kendi* can be substituted with a regular pronominal in this context. Consider the example below:

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[84] Özsoy (1983) considers the instances of *kendi* in (26b-c) as discourse reflexives.

[85] I thank A. Sumru Özsoy for this suggestion. However, as I discuss in the text *kendi* and personal pronouns behave differently.

[86] I thank Meltem Kelepir for this point. It is indeed true that *kendisi* is the reflexive form in Dialect A in long distance contexts. In Dialect B, on the other hand, both forms can be used as reflexives in long distance contexts.

(27) Ahmet$_i$ [pro$_k$ *on*-a$_i$ bir takım elbise al-ma-m]-ı ist-iyor.
Ahmet he-DAT a suit buy-NOM-1sg-ACC want-PROG
"Ahmet wants me to buy a suit for him."

Note that the example in (27) the pronominal expression *o* (he/she/it) is bound by the subject of the matrix clause, hence grammatical as the Condition B of Binding Theory predicts. This shows that the anaphor like expression *kendi* in (26c) is not a true anaphor but a pronominal expression. That is to say, Condition A is not violated in (26c) since there is no context for Condition A to apply.

However, I point out that this substitution is not always the case and the explanation falls short when we consider *kendi* within a postpositional phrase. A number of postpositions such as *için* (for) in Turkish check genitive case on their complement NPs if the NP is a pronominal expression. We observe this in (28a) below where the pronominal expression *o* (he/she/it) is inflected with the genitive marker. However, *kendi* in the same position cannot be inflected with the genitive case marker as has already been observed by Kornfilt (1997:303) and Göksel and Kerslake (2005).

(28) a. Ali$_i$ [pro$_k$ [**o*/*on*-un$_i$ için] bir paket sigara al-ma-m$_k$]-ı iste-di.
Ali he/he-GEN for a box cigarette buy-NOM-1sg-ACC want-PAST
"Ali wanted me to buy a box of cigarette for him"

b. Ali$_i$ [pro$_k$[**kendi*-nin / *kendi*$_i$ için] bir paket sigara al-ma-m$_k$]-ı
Ali himself-GEN / himself for a.box.of.cigarette buy-NOM-1sg-ACC
iste-di.
want- PAST
"Ali wanted me to buy a box of cigarette for himself"

I propose that the grammaticality contrast above is problematic if we assume that *kendi* behaves in the same as pronominal expressions. If it were the case, we would not expect the contrast above.[87] Note also that *kendisi* can also occur in these positions. This raises

[87] Aslı Göksel (p.c) notes that *kendi-nin* may be a shortened form of *kendisi-nin* which needs a genitive head. Moreover, the form *kendi-nin* is not observed at all. However Kornfilt (1997:304) observes that the form *kendi-GEN* is available in the following context:

the question why we have another anaphoric expression *kendisi* in the same position if *kendi* is actually a pronominal expression rather than an anaphoric one? Recall that *kendisi* can be interpreted as both anaphoric and pronominal. In the anaphoric case, it is interpreted with the matrix subject while in the pronominal case it is interpreted with the matrix subject and a third party, just in the same way as a true personal pronoun. Thus, it seems that it is *kendisi* rather than *kendi* which has a dual status with respect to anaphoric versus pronominal interpretation.

Another important point in (28b) is that in Dialect B *kendi* in the complement position of the postposition is bound by a non-local antecedent, the subject of the matrix clause. This is an unexpected case for Condition A, yet the structure is grammatical. Be it due to the absence of a Condition A like condition on the distribution of anaphors in Turkish or not, the data show us that we are dealing with a different sense of distributional variation between pronouns and anaphors. Therefore, I conclude that Binding Theory conditions cause problems rather than eliminating these conditions altogether.

The discussion above leaves us with three alternative statements suggested to me by Aslı Göksel (p.c): (i) the local domain in Turkish is differently observed, (ii) there is no reflexive in Turkish, and (iii) there are reflexives, but reflexives can be bound non-locally.

Let us take the first option. If the local domain for the reflexive is not TP or CP, what is it? Can the CFC for the reflexives be DP? The D head licenses a *pro* in its Spec

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(i) bu kitap kendi-m-in-ki-dir
this book self-1.sg.-Gen.-Poss.Pr/Rel.Cl.-Ep.Cop.
"This book is the one which is my own"

Kornfilt (1997:304) Example (1087)

In (i) above the reflexive form is inflected with a genitive suffix followed by pronominal *'-ki'* suffix. Note also that *kendi* in this context does not behave in the same way as pronouns. It has long been observed in Turkish that first person pronouns are inflected with genitive suffix in an irregular way (*'-im'* instead of *'-in'*). However, first person possessive inflected *kendi* as *kendi-m* is regularly inflected further with the genitive suffix (*kendim-in* instead of **kendim-im*).

position and the reflexive sits in N head position. This might be motivated by the presence of the agreement marker on the reflexive form. Thus, the local domain for the reflexive is DP where all the grammatical functions are realized. However, the possible antecedent for the reflexive is outside of this local domain. To solve this problem, let us assume that *pro* in Spec-DP position assumes all the features of the antecedent, hence the reflexive in the N head is bound locally. The reflexive is interpreted with its antecedent via a pronominal chain. This explanation causes problems. First, it is not economical in that it needs to assume a DP projection which is problematic for many reasons (See Öztürk 2002, 2003a, 2005, but Arslan 2006 for the opposite view). Second, if we are to make use of a pronominal chain whose tail is realized as *pro* and head as the antecedent, why do we need reflexives in our syntax? What is the nature of intermediary *pro?* Does it need its own local domain in order to be licensed as a pronominal? These are open questions for this alternative.

A similar hypothesis would be to assume that the local domain for the reflexives is extended to the matrix clause. Since the binding domain is the matrix clause, the reflexive in the subordinate clause can easily be bound by its antecedent in the matrix clause without violating Binding Theory Condition A. I propose that this option does not work for a number of reasons. First of all, there are reflexives in Turkish which are bound by a syntactic category other than the subject as shown in the example (23). The definition of local domain would still be problematic for the reflexives which are bound in a domain where there is no subject. Second, extending the binding domain to the matrix clause would be problematic for the claim that subordinate clauses are opaque domains for binding. Third, this option requires a number of stipulations about the conditions which require the extension of the binding domain into the matrix clauses. Under what conditions is the binding domain extended to the matrix clause and under what conditions it is not? Recall that *kendi* in an embedded clause can be bound both by

the matrix subject and the embedded subject in Dialect B. What would be the binding domain in this case? Given that different results are obtained in similar instances of reflexivization, i.e. binding *kendi*, extending the binding domain into the matrix clause would fail to account for the distributional facts. Thus, I propose that this option does not work for the facts we observed so far.

Second, let us take the "no reflexive" option. This makes us consider the possibility of licensing reflexives with a special verbal morphology. Hence, the reflexive interpretation is mediated by the verbal morphology and the reflexives are just PF inserted items. If the complement position of the verb is empty, interpret it with the subject and fill the slot with a form *kendi* at PF. This option has problems too. First, recall that verb heads in Turkish do not carry agreement morphemes for their complements. Since there is φ-feature agreement between the antecedent and the reflexive, we need extra stipulations about how PF inserts the agreement markers to the empty slot in the clause structure. Second, taking reflexives out of the narrow syntax and putting them into the PF component would require LF transparency given that reflexives might contribute to the sentence meaning. Third, PF insertion can easily be extended to null object constructions and predicts all null arguments to be anaphoric in nature. This is contrary to what we observe in cases of null object constructions.

The third option seems to be the most representative for our data. There are reflexives in Turkish, but they can be bound non-locally. In this alternative, the reflexive is merged with its antecedent which is an empty operator. The empty operator moves to an A'- position and the reflexive strands, similar to resumptives (cf. Boeckx 2003a). In the next chapter, I will discuss this option in a more detailed way and argue that reflexives are licensed (bound) via a type of resumptive chain offered in Chapter 3.

After this interim summary and discussion, let us continue with other contexts where the form *kendi* is bound across its own clause. *kendi* can be bound by a matrix

subject while it occurs in a complement clause which involves a postpositional phrase. Consider (29a-c).

(29)[88] a. Ali_i [pro_k [*kendin*-e_i bağlı] ol-ma-mız]-ı isti-yor.
Ali himself-DAT loyal be-NOM-1pl-ACC want-PROG
"Ali wants us to be loyal to him"

b. Ben [herkes-in_k [*kendim*-e_i bağlı] ol-ma-sın]-ı ist-iyor-um.
I everyone-GEN myself-DAT loya l be-NOM-3sg-ACC want-PROG-1sg
"I want everyone to be loyal to me"

c. Sen_i [herkes-in [*kendin*-e_i bağlı] ol-ma-sın]-ı isti-yor-sun.
you everyone-GEN yourself-DAT loyal be-NOM-3sg-ACC want-PROG-2sg
"Ali wants us to be loyal to him."

The availability of *kendi* in this context shows that according to Dialect B it can be bound across its clause, i.e. it can be bound non-locally. This is intended to remark that the distribution of *kendi* and personal pronouns might not follow from Binding Theory conditions.

One can argue that the nominalized complement clauses with {-mA} allow long distance binding of an anaphoric expression since they are not factive clauses (Kornfilt 2004). However, *kendi* can also be bound by an antecedent outside of its governing domain in factive clauses which are nominalized with {-DIK}. Consider the example below.

(30)[89] Ali_i [Ahmet-in_k *kendin*-$e_{k/i}$ gül-düğ-ün]-ü san-dı.
Ali Ahmet-GEN himself-DAT laugh-NOM-3sg-ACC think-PAST
"Ali thought that Ahmet has laughed at himself"

Note that *kendi* in (30) can be bound by the matrix subject although a lexical NP is present in the embedded subject position. We argue that the grammaticality of this

[88] The example in (a) is grammatical according to both dialects. (29b-c) are grammatical for Dialect B, but not for Dialect A.

[89] Different from the previous examples, i.e. *kendi* as the complement of postposition, *kendi-m* (myself), *kendi-n* (yourself) are not grammatical in Dialect B in these examples. Recall that in Dialect A all forms of reflexive pronoun are disallowed in embedded clauses.

example indicates that the Condition A cannot account for it. Or it may just show that *kendi* is not a reflexive, the same example shows that it cannot be a pronoun. So it does not fall into the types that are analyzed within the binding conditions.

In the discussion above, we have focused on the fact that anaphors can be bound outside of their local domain. However, there is one more point to make for the examples above. Recall that the Binding Theory requires anaphors and pronouns to be in complementary distribution. In other words, they can not occur in each other's environment. However, our discussion concludes that this is too strong for Turkish in that anaphors can occur in pronominal environments (examples in 28-30). In section 4.2.3 we will check whether the reverse is also true, i.e. whether pronouns occur in anaphoric contexts. But before that, let us examine the relative clauses in light of Condition A.

4.2.2.2.2 Relative Clauses

Relative clauses are structures where the different distributional facts of *kendi* and *kendisi* are realized. That is to say, while *kendi* cannot act as a resumptive pronoun, *kendisi* can do so as noted in Chapter 3. However, consider the example below where *kendi* occurs in the complement position of the relativized verb and interpreted with the head noun.

(31) [ec$_i$ *Kendin*-i$_i$ sev-en] adam$_i$
himself-ACC love-REL man
"The man who loves himself"

In (31*) kendi* occurs in the complement position of the relativized verb. It is not a resumptive pronoun given that it does not occur in the relativization site. *kendi* in this example seems to be bound by an empty category in the subject position of the relative clause since the structure is a subject relativization example. Assuming that the empty category is in Spec-TP/AspP position, a resumptive pronoun counterpart of the empty

category is expected to bind *kendi*, but this is not possible. This is given in (32a-b) below.

(32) a. *[*Kendisi*$_i$ *kendin*-i$_i$ sev-en] adam
rp himself-ACC love-REL man
"The man$_i$ who (he$_i$) loves himself$_i$"

b. [*Kendisi*$_i$ hazırlanan program-dan memnun kal-an] Pamuk$_i$ [90]
rp prepared program-ABL please-REL Pamuk
"Pamuk, who was happy about the prepared program"

(32a) shows that a true resumptive pronoun in the subject position can not bind *kendi* in the complement position.[91] As in the case of overt pronouns in the embedded subject position, a resumptive pronoun in the subject position cannot bind *kendi*. Recall that covert categories such as *pro*, PRO and ec can bind *kendi* but not overt categories.

The implications for Binding Theory raise some questions. First, assuming that *kendi* is bound by the *ec* in the subject position of (31), why can an *ec* bind the reflexive pronoun while a pronominal expression (resumptive) in the same position cannot do so in (32a) even though the latter has φ-feature agreement with *kendi*? Moreover, the

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[90] I thank Meltem Kelepir for providing this example to me.

[91] A. Sumru Özsoy (p.c) points out that the ungrammaticality of this example also shows that the resumptive pronoun is not syntactically active since it can not bind the reflexive from the subject position. A similar example is given in (i) below:

(i) *[*Kendisin*-e$_i$ *kendin*-i$_i$] anlat-tığ-ım adam$_i$
rp-DAT himself-ACC tell-DIK-1sg man
"The man I told him about him."

In (i) above, the resumptive pronoun in the second complement position cannot bind the reflexive. However, there are examples which are pointed out to me by A. Sumru Özsoy (p.c) which constitute counter-evidence for our claim. Consider (ii):

(ii) [Kendisi$_i$ dün akşam meyhane-de sarhoş ol-up kendin-i$_i$ rezil ed-en] adam$_i$
rp last.night pub-LOC drunk be-and himself-ACC humiliate-REL man
"The man who (he) became drunk and humiliated himself in the bar."

In (ii) the resumptive pronoun in the subject position seems to be able to bind the reflexive in the complement position of the relativized verb. I propose that the availability of (ii) results from the distance between the two pronominal items. That is to say, it is the distance between the resumptive *kendisi* and reflexive pronoun *kendi* which makes the structure available rather than the licensing capacity of the resumptive. In other words, the resumptive and the reflexive forms independently occur in the structure. I thank Meltem Kelepir for pointing this out to me. Moreover, Aslı Goksel (p.c) notes that there might be prosodic effects on the pronoun use. The issue needs further investigations.

resumptive in (32a) is interpreted as the subject of the relative clause. Second, assuming that *kendi* is bound by the head noun in (31), why would an *ec* in the subject position, hence within a relative clause domain (CP) not do it although it is closer to *kendi*? Third, assuming that *kendi* is bound by the empty operator in the C domain, would binding from an A'-position (Spec-CP) not be problematic for Binding Theory? These questions raise problems for Condition A of Binding Theory. Actually, I will argue in the following chapter that the last question above has implications on Binding phenomenon in Turkish. Accordingly, binding is actually an A'-phenomenon by which a reflexive is bound by an empty operator in the C domain. Note that this analysis predicts that reflexives are of variable nature. Indeed this prediction is borne out given that (32a) is ungrammatical. I will analyze the ungrammaticality of (32a) as an example of strong crossover effect which variables exhibit when a pronoun c-commands the trace of its antecedent. In (32a), the resumptive pronoun *kendisi* c-commands the trace of its antecedent which is the empty operator in the C domain.

Note that the reduplicated *kendi kendi* can be analyzed as resumptive+reflexive chain in that the former occurs in the subject position and acts as a resumptive pronoun, and the latter occurs in the complement position and acts as a reflexive pronoun. This is shown in (33).

(33) *[*Kendi*$_i$ *kendin*-i$_i$ döv-en] adam$_i$
rp himself-ACC beat-REL man
Intended reading: "The man$_i$ who he$_i$ beats himself$_i$"

Note that (33) is ungrammatical in the intended reading. Thus, *kendi kendi* is not separable into the subject and the complement positions in that a true non-resumptive pronominal subject is available in this position. The evidence for this comes with the examples where the topic particle intervenes the reduplicated *kendi kendi*. Note that in

Turkish topic particle *dA* can intervene between the subject NP and the VP. However, this is not available in *kendi kendi* contexts. Consider (34a-b).

(34) a. *[*Kendi*$_i$ de *kendin*-i$_i$ döv-en] adam$_i$
rp top.part himself-ACC beat-REL man
Intended reading: "The man$_i$ who he$_i$ beats himself$_i$"

b. [*Kendisi*$_i$ de hazırlanan program-dan memnun kal-an] Pamuk$_i$
rp top.part prepared program-ABL please-REL Pamuk
"Pamuk, who was happy about the prepared program"

In (34a) the topic particle *dA* (also/too) intervenes in the reduplicated *kendi kendi* and the structure is ungrammatical. This ungrammaticality is not expected if the first part of *kendi kendi* is the subject of the sentence and the second one belongs to the VP, given that the topic particle can intervene between the subject NP and the VP in (b) case. Following Göksel and Kerslake (2005:270), we hold that *kendi kendi* is the emphatic version of *kendi* in its reflexive use.

4.2.2.2.3. ECM Clauses

This section discusses anaphor binding in the ECM (Exceptional Case Marking) clauses. We observe that anaphor binding into an ECM clause is possible in Turkish. We argue that this indicates that the ECM clause is another context where Condition A is violated in Turkish.

I propose that ECM clauses have a C domain too. This implies that ECM clauses must be opaque domains for binding; hence the binding of an anaphor is not expected to be available as noted by Özsoy (2001) and Kornfilt (2007). However, this is not what we observe in ECM clauses. Consider the examples below.[92]

[92] The position of the ECM subject is a controversial issue. Following Aygen (2002), Öztürk (2005), Meral (2005), Oded (2006) and contra Zidani-Eroğlu (1997), Özsoy (2001) and Arslan (2006), I propose that the ECM subject stays in situ, i.e. it does not move to the matrix clause for case checking. See also İnce (2005, to appear-a) for the proposal that ECM subject is base generated in the matrix clause.

(35) a. Ali$_i$ [*kendin*-i$_i$ İstanbul-a gid-iyor] san-ıyor.
Ali himself-ACC Istanbul-DAt go-PROG think-PROG
"Ali considers himself going to Istanbul"

b. Ali$_i$ [*kendin*-i$_i$ başbakan] san-ıyor.
Ali himself-ACC prime.minister think-PROG
"Ali considers himself prime minister"

c. ?Ali$_i$ [ben-i$_k$ *kendin*-e$_i$ gül-üyor-um$_k$] san-dı.
Ali I-ACC himself-DAT laugh-PROG-1sg think-PAST
"Ali considered Ahmet laughing at himself"

All the examples in (35a-c) involve *kendi* inside the ECM clause. However, they vary with respect to the possibility of long distance binding of the anaphoric expression inside the ECM clause. In (35a) the ECM clause has a verbal predicate, and the anaphoric NP in the subject position of the ECM clause is bound by the matrix subject. Likewise, in (35b) the anaphoric subject of the ECM clause with a non-verbal predicate is bound by the matrix subject. However, in (35c) the anaphoric expression in the complement position of the ECM verb is bound by the matrix subject.

4.2.2.2.4. Adjunct Clauses

In this section, we focus on the examples where the matrix subject binds the anaphoric expression inside the adjunct clauses. We argue that Condition A is problematic in terms of the grammaticality of the examples which involves binding into adjunct clauses. Consider the example below.

(36) Ali$_i$ [PRO$_i$ *kendin*-i$_i$ ayna-da gör-ünce] şaşır-dı.
Ali himself-ACC mirror-LOC see-when surprise-PAST
"Ali was surprised when he saw himself in the mirror."

In (36) the anaphoric expression within the adjunct clause is bound by the matrix clause. Assuming that the adjunct clause is a CP which constitutes a domain for binding, the

structure should be ungrammatical in accordance with Condition A. However, the structure is grammatical, contrary to what Condition A predicts.

One possible argument for (36) is that there is PRO in the subject position of the adjunct clause which acts as an antecedent for the anaphoric expression, hence *kendi* is bound in its governing domain. We propose that this position is not filled by PRO, but an empty category which is interpreted as bound variable. I will discuss this issue in a detailed way in Chapter 5.

4.2.2.2.5. Comparative Clauses

This section argues that comparative clauses provide another evidence for the inadequacy of Condition A in Turkish. Comparative clauses in language have been investigated for their syntactic and semantic properties. Syntactically, they have been argued to be wh-CPs within prepositional phrases headed by *than* (Chomsky 1977). Cross-linguistic variation has been observed with respect to (i) phrasal or clausal nature of the comparative constituent, (ii) the categorical status of the comparative connector, (iii) scope island status of the comparative clause (Matos and Brito 2008). There are also studies (Larson 1988, Schwarzschild and Wilkinson 2002, Heim 2006) which focus on the semantic aspect of the issue due to the fact that interpreting a quantificational DP inside a comparative clause gives different readings from the ones we observe in these structures. Consider a familiar comparative clause example in (37).

(37) John is taller than every girl is.
"for every girl x: John is taller than x"

Heim (2006:1) Example (1)

The comparative clause in the example (37) has the following structure:

(38) $[_{PP}$ than [CP *[whØ]*$_i$ [TP every girl is *[-]*$_i$]]

Heim (2006) notes that the structure in (38) is problematic in that the interpretation is not expected from either a syntactic or a semantic point of view. As for syntax, *than*-clauses are considered to be scope-islands, hence the quantifier inside the clause is not expected to scope out of the embedded clause. As for semantics, Heim (2006) notes that *than*-clauses seem to be definite descriptions of degrees or perhaps universal quantifiers over degrees. Either way, interpreting a quantificational DP inside them gives readings distinct from the ones we observe.

Hofstetter (2008) argues that Turkish does not have clausal comparatives at all and it is not possible to derive Turkish comparative structures from a clausal source. He notes that this is due to the fact that Turkish lacks measure phrase constructions (39), subcomparatives (40) or even negative island effects (41) which are observed in other languages such as English.

(39) **Maria bir metre yetmiş uzun.*
MARIA ONE METRE SEVENTY TALL
`Maria is 1.70 m tall.´

(40) **Bıçak çekmeceden derin daha uzun.*
KNIFE DRAWER-Abl DEEP MORE LONG
`The knife is longer than the drawer is deep.´

(41) *Maria (hiç) kimseden uzun değil.*
MARIA NOBODY TALL NOT
`Maria is not the tallest.´ (literally `Maria is taller than nobody.´)

Hofstetter (2008) Examples (11-13) respectively

However, I point out that Hofstetter's (2008) examples do not represent the whole set of comparative structures in Turkish. Consider (42-43) where the slight modification of his examples makes them grammatical.

(42) Ali 1.70 boy-un-da. / Boru 1.70 uzunluğ-un-da
Ali 1,70 length-3sg-LOC / pipe 1,70 length-3sg-LOC
"Ali is 1,70 tall." / "The pipe is 1,70 long."

(43) Bıçağ-ın uzunluğ-u çekmece-nin derinliğ-in-den de fazla
knife-GEN length-3sg drawer- GEN deep-3sg-ABL more
"The knife is longer than the drawer is deep."

I propose that Turkish allows clausal comparatives. The structures in (44a-b) below which are considered phrasal comparatives are actually derived from a clausal source.

(44) a. Ali Ahmet-ten daha uzun.
Ali Ahmet-ABL more tall
"Ali is taller than Ahmet"

b. Ali Ahmet-ten daha hızlı koştu.
Ali Ahmet-ABL more fast run-PAST
"Ali ran faster than Ahmet."

These structures can be considered as being derived from a clausal comparative in (45a-b) below.

(45) a. Ali [Ahmet-in ol-duğ-un-dan] daha uzun.
Ali Ahmet-GEN be-NOM-3sg-ABL more tall
"Ali is taller than Ahmet is."

b. Ali Ahmet-in koş-tuğ-un-dan daha hızlı koş-tu.
Ali Ahmet-GEN run-NOM-3sg-ABL more fast run-PAST
"Ali ran faster than Ahmet does."

Moreover, the clausal source sometimes becomes obligatory to disambiguate the structure as exemplified in (46a-b) below.

(46) a. Ali Ahmet-i Hasan-dan daha önce gör-dü.
Ali Ahmet-ACC Hasan-ABL more before see-PAST
"Ali saw Ahmet before Hasan."

b. Ali Ahmet-i Hasan-ı gör-me-sin-den daha önce gör-dü.
Ali Ahmet-ACC Hasan-ACC see-NOM-3sg-ABL more before see-PAST
"Ali saw Ahmet before he saw Hasan."

While (46a) is ambiguous between the agent NPs, *Ali or Hasan* for seeing *Ahmet*, (46b) is not ambiguous. (46b) needs discussion due to the adjacency of two accusative case marked NPs in the structure. I leave this issue for further research.

Following Chomsky (1977), I point out that comparative structures in Turkish are CPs with a null operator in the Spec position. The Operator functions as connecting the NP inside the comparative clause to a higher subject for interpretation. That is to say, although a closer subject NP is present in the structure, the Operator in the comparative clause connects the anaphor to the higher subject in the sentence.

Consider the examples below where the anaphoric expression within the comparative clause can be interpreted with the matrix subject.

(47) a. Ali$_i$ [Veli-nin$_k$ [*kendin*-den$_i$ daha başarılı] ol-duğ-un]-u san-ıyor.
Ali Veli-GEN himself-ABL more successful be-NOM-3sg-ACC think-PROG
"Ali thinks that Veli is more successful than him"

b. Ali$_i$ [Veli-yi$_k$ [*kendin*-den$_i$ daha başarılı]] san-ıyor.
Ali Veli-ACC himself-ABL more successful think-PROG
"Ali considers Veli more successful than him"

In (47a-b) the anaphoric expression *kendi* in the comparative clause is interpreted with the NP in the matrix subject position. Note that the embedded subject NP and the subject of the ECM clause in (47a-b) respectively are closer to the anaphor than the matrix subject. However, the anaphor is interpreted as being coreferential with the matrix subject. This is another support for our claim that Condition A has problems for explaining anaphor binding in Turkish.

Another example where *kendi* can be bound across its minimal domain comes again with comparative clauses. Consider the following example.

(48)[93] Ali_i Veli-yi_k *kendin*-$den_{i/k}$ daha çok sev-iyor.
Ali Veli-ACC himself-ABL more love-PROG
"Ali loves Veli more than himself"

In the example above, *kendi* within the comparative clause takes either *Ali* or *Veli* as its antecedent. We observe that the fact that Ali binds *kendi* can be considered a violation of Condition A.

4.2.2.2.6. VP Ellipsis/Stripping/Sluicing Structures

This section argues that the ellipsis structures provide another support for the fact that anaphors can be bound outside of their governing category. Consider the example (49) below where the second occurrence of the verb is elided with its complement.[94]

(49) $Ahmet_i$ kendin-i_i [Mehmet-ten_k $ec_{i/k}$ daha iyi] savun-uyor.
Ahmet himself-ACC Mehmet-ABL better defense-PROG
"Ahmet defends himself better than Mehmet did."

In (49) there is an elided part in the comparative clause with a null NP in the complement position of the elided material. Note that the null object in this structure receives both sloppy and strict identity readings. In the sloppy identity reading, the *ec* is interpreted as a pronominal. In the strict identity reading, on the other hand, it is interpreted as an anaphor. Note also that the complement position of the first clause involves *kendi*. This indicates that the strict identity reading of the complement in the second clause must be in a local relationship with the antecedent in the matrix subject position. However, the local domain of the null reflexive in the second clause does not include the antecedent. Thus, we can conclude that *kendi* in the first clause can not be explained by Condition A.

[93] I take this example as involving a reduced clause. The reduced clause lacks the verb and the subject which are identical with those in the matrix clause.

[94] Aslı Göksel (p.c) points out that this example may be some form of sluicing. See İnce (2006, to appear-b) for an analysis of sluicing structures in Turkish.

One possible counterargument to the analysis proposed above is to assume that the null NP in the elided part is not of the anaphoric expression but of a pronominal category. Thus, the pronominal is bound outside of its local domain as predicted by Condition B. However, we note that both sloppy and strict identity readings are available for the null NP in the elided part. The sloppy identity reading of the null NP will be problematic for Condition B in that it must not be bound within its local domain. However, if it is a reflexive pronoun, no problems arise with respect to Condition B.

To conclude this section, I have provided a discussion which is based on long distance binding of *kendi* in a number of contexts in order to show the problematic aspects of Condition A. Recall that there is a dialect split, Dialect A and Dialect B in that *kendi* bound from a long distance position in complement clauses is available in Dialect B but not in Dialect A. Is there any evidence against Condition A coming from the facts observed in Dialect A?

I propose that long distance binding of *kendi* in adjunct clauses, *kendi* in comparative clauses and ECM constructions show properties against Condition A for both dialects. That is to say, there are sets of data which are not subject to a dialect split. The local occurrence of direct object *kendi* as bound by the indirect object, *kendi* in ECM and ellipsis constructions are structures where no dialect split is observed.

4.2.2.3. Reconstruction Facts[95]

This section argues that the reconstruction facts show that Condition A is not needed for reconstruction reasons. If Condition A is active in a language, we expect it to cause a moved element to reconstruct back to its original position following the requirements imposed by Condition A. However, in Turkish this is not attested.

Note that one of the arguments in favor of Binding Theory is the availability of A- Reconstruction. In other words, the anaphors reconstruct for binding purposes. However, Turkish does not possess *of himself* type structures contained in the head noun in relative clauses where the anaphor *himself* is argued to reconstruct back to the relative clause where it is bound by its antecedent. Below is one example of these structures which are also known as *picture NPs* in the literature.

(50) The [picture of himself$_i$] John$_i$ likes _ best

The reflexive pronoun *himself* in (50) above is contained in the head noun which is structurally higher than its antecedent *John*. Condition A requires the reflexive to be c-commanded by the antecedent in order to be interpreted. Reconstruction is available machinery for this operation as a result of which the head noun reconstructs back to the relative clause where it is c-commanded by the antecedent in the subject position of the relative clause.[96]

[95] See Alexiadou, Law, Meinunger and Wilder (2000), Aoun et. al. (2001) and Aoun and Li (2003) for a discussion of reconstruction effects different languages exhibit. Aoun and Li (2003) points out that in English while non-wh relative clauses show reconstruction effects, wh-relatives do not. Definite relatives in Lebanese Arabic exhibit reconstruction effects only when the resumptive pronoun is not separated from the head by an island. Indefinite relatives, on the other hand, never show reconstruction effects. In a head-final language, i.e. Chinese, relative clauses exhibit reconstruction with respect to binding but not with respect to scope relations between two quantificational expressions.

[96] Note that these structures have been well discussed in the literature. Pollard and Sag (1992) argue that picture NP structures are exempt from Condition A. Discourse determines their antecedent.

Turkish possesses some structures where the material which is assumed to move from the relative clause contains *kendi*. However, the anaphoric expression in the head noun is not in a complement position but in an adjunct position. Consider (51).

(51)[97] *[*Ahmet*-in *t* en çok sev-diğ-i] *kendi* resm-i
Ahmet-GEN most like-DIK-3sg self picture-3sg
"Himself's picture that Ahmet likes best."

In (51) above, *kendi* is contained in the head noun which is assumed to move from the relative clause to the head noun position via head raising. Note that the structure is ungrammatical indicating that the occurrence of *kendi* as part of the head noun is not licensed. The ungrammaticality of the example also shows the unavailability of the head raising approach for the derivation of relative clauses in Turkish.

Consider also the structures where the anaphoric expression in the head noun is contained within a postpositonal phrase, i.e. the anaphoric expression occurs in the complement position of the postposition. This is given in (52).

(52) *[*Ahmet*'in savun-duğ-u] [*kendin*-e göre doğru fikir]
Ahmet-GEN defend-DIK-3sg himself-DAT according to true idea
"The idea (which is) true for himself that Ahmet defends."

Note that the anaphoric expression in (52) occurs in the complement position of the postposition *göre* (according to). Hence, the anaphoric expression is an argument in this

[97] Some native speakers find this example grammatical. However, the issue here is whether *kendi* receives a reading similar to the reflexive in (50) or not. I propose that Turkish employs possessive morphemes in order to create the anaphoric dependency between the two nominals in these contexts. Moreover, *himself* in (50) is in a complement position while *kendi* in (51) is in an adjectival position. The possible reconstruction in (51) would require *kendi* which occurs as part of the head noun reconstruct back to the relative clause where it can be bound by its antecedent *Ahmet*. Hence, a Condition A effect is observed in the language. However, I consider these structures as genitive possessive structures where the relative clause with an empty subject is embedded under this genitive-possessive construction. Consider (i)

(i) Ahmet-in_i [$_{\text{Rel.cl.}}$ pro_i çok sev-diğ-i] kendi resm-i_i.
Ahmet-GEN much like-DIK-3sg himself picture-3sg
"The picture of Ahmet which he likes best"

Hence, there is no need for reconstruction in this case given that the genitive *Ahmet-in* already c-commands *kendi*.

case and expected to reconstruct back to the relative clause for binding by its antecedent *Ahmet*. However, the structure is ungrammatical which shows that there is no A reconstruction for binding purposes.

Note also that the head noun in (52) also contains a possessive morpheme which is interpreted as being co-indexed with the subject of the relative clause. We can consider these structures as genitive possessive structures i.e. *Ahmet-in* (Ahmet's) is the genitive and *resm-i* (picture-3sg) is the possessive. Note that relative clauses can intervene between the genitive and possessive items in Turkish as shown in (53) below.

(53) *Ahmet*-in [Ali-nin sev-diğ-i] resm*i*
Ahmet-GEN Ali-GEN like-DIK-3sg picture-3sg
"The picture of Ahmet that Ali likes."

In (53) a relative clause intervenes between the genitive, *Ahmet-in* and possessive, *resm-i,* NPs. This supports our claim that structures of the type exemplified in (53) are genitive-possessive structures in Turkish.

4.2.2.4. *kendi* in Other Contexts

This section discusses the form *kendi* in other grammatical contexts. We point out that *kendi* has a number of other functions in Turkish besides its reflexive function. We argue that *kendi* can be bound across its minimal domain in these functions too.

4.2.2.4.1. Emphatic Function of *kendi*

Another use of *kendi* is its emphatic use given in (54a-b). In its emphatic use, it can be co-indexed with the subject or the object of the sentence. The subject may be overtly expressed in the sentence as in (54a), or it may not be as in (54b).

(54) a. Ahmet$_i$ okul-a *kendi*$_i$ git-ti.
Ahmet school-DAT himself go-PAST
"Ahmet went to school by himself."

b. pro$_i$ *kendi-m*$_i$ gel-eceğ-im.
myself come-FUT-1sg
"I myself will come"

In (54a-b) *kendi* emphasizes the subject *Ahmet* and *pro* respectively. It denotes the way the subjects do the actions of going and coming respectively. For instance, in both (54a-b) *kendi* can be interpreted as "the subject has done the action alone" or "the subject is not taken to the school by someone else". Note that the emphatic *kendi* does not participate in the argument structure of the predicate. It functions as the adverbial in the sentence and can be interchangeably used with the other adverbials with the same function. This is illustrated in (55a-c) below. But *kendi* can co-occur with the other adverbials given that it is used with intransitive verbs.

(55) a. Ahmet$_i$ toplantı-ya *kendi*$_i$ git-ti.
Ahmet meeting-DAT himself go-PAST
"Ahmet went to the meeting by himself."

b. Ahmet$_i$ para-yı *kendi*$_i$ *bizzat* ver-di.
Ahmet money-ACC himself give-PAST
"Ahmet gave the money by himself."

c. Ahmet$_i$ toplantı-ya *kendi*$_i$ *şahs-en* git-ti.
Ahmet meeting-DAT himself go-PAST
"Ahmet went to the meeting by himself."

In (55a) *kendi* occurs in a position which can also be filled by other adverbials with the same function as exemplified in (55b-c). Another property of the adverbial use of *kendi* is that it can target an inanimate antecedent. Consider (56).

(56) Radyo-yu ben boz-ma-dı-m, *kendi (kendin-e)* boz-ul-muş.
radio-ACC I break-NEG-PAST-1sg itself broken
"I did not break the radio, it appears that it, itself is broken."

4.2.2.4.2. Adjectival Function of *kendi*

Göksel and Kerslake (2005:264) point out that the bare form of *kendi* can be used as an adjectival modifier of a possessive marked NP. In this case, *kendi* means *own* and is not inflected with person or case morphemes. (57) below shows the adjectival modifier use of *kendi*.

(57) Semra Elif'e *kendi* anahtar-lar-*ın*-ı vermiş
own key-pl-3sg. poss-acc
"Semra gave Elif her own keys"
Göksel and Kerslake (2005:264) Example (14)

In (57) *kendi* modifies the NP *key* and can be anteceded by both *Semra* and *Elif* in the sentence.

4.2.2.4.3. Logophoric Function of *kendi*

We propose that the bare form of *kendi* has a further function in that it expresses logophoricity in certain contexts. This use of *kendi* is identical with the adjectival modifier function of *kendi* in structural terms. That is, *kendi* as logophor occurs in the same environment as the adjunct *kendi*. However, its interpretation is different.

Some languages (e.g. West African languages, Chinese, Japanese) have been observed to have logophoric pronouns in the literature. With respect to their interpretation, logophors have been defined as "pronouns implying a sort of *de se* reading i.e. self awareness" in Safir (2004). In Turkish, *kendi* is used as a logophor in certain cases. Consider (58).

(58) Ali bütün bunlar-ın *kendi* hata-sı ol-duğ-un-u kabul ed-iyor.
Ali all these-GEN own fault-3sg be-NOM-3sg-ACC accept-PROG
"Ali accepts all these things to be his own fault"

kendi in (58) expresses self awareness in that the subject of the sentence *Ali* is aware of his own faults. Note that *kendi* in (57) and in (58) are different with respect to their presence in the sentence. Although adjectival modifier *kendi* can be dropped in the structure, *kendi* as logophor can not be. This is shown in (59a-b).

(59) a. Semra Elif'e anahtar-lar-ın-ı ver-miş.
Semra Elif-DAT key-PL-3sg-ACC give-EVI
"Semra gave her own keys."

b. ?*Ali bütün bunlar-ın hata-sı ol-duğ-un-u kabul ed-iyor.
Ali all these-GEN fault-3sg be-NOM-3sg-acc accept-PROG
"Ali accepts all these things as his faults"

In (59a) adjectival modifier *kendi* is dropped and the structure is still grammatical. However, in (59b) the deletion of the logophor *kendi* causes ungrammaticality or at least the structure is semantically awkward. This shows that *kendi* in the two contexts are different.

To conclude this section, we argued that Condition A causes problems in explaining the distributional facts of reflexives. The discussion on anaphor binding across clauses and the absence of reconstruction effects due to binding reveals that classical Condition A is problematic for Turkish at least for its definition of "binding domain". Turkish seems to have a pronominal system with binding conditions different from English. *kendi* and *kendisi* have different distributional requirements and functions from the reflexives in English. Thus, they do not seem to be like typical reflexives at all. The same is true for the pronouns in Turkish in that they, too, have different distributional requirements from the pronouns in English. I focus on the pronouns in Section 4.2.3.

I argue that both *kendi* and *kendisi* behave as variables. *kendi* is a variable which can only occur in the presence of an A'-operator. *kendisi*, on the other hand, is a multifunctional expression whose licensing differs with respect to the presence/absence

of an A'-operator in the structure. In the presence of it, it acts as a variable while in the absence of it, *kendisi* acts as a deictic pronominal which takes its antecedent in the previous discourse. I will argue for this in more detail in the next chapter. However, before moving into the next chapter, I will consider Condition B and pronominal expressions in Turkish.

4.2.3. Condition B and Personal Pronouns in Turkish

This section argues that Condition B of the Binding Theory is problematic for the distributional properties of the pronominal expressions in Turkish.[98] We discuss four points with respect to our claim: (i) Condition B wrongly predicts grammatical sentences, (ii) Condition B wrongly predicts ungrammatical sentences, (iii) the distribution of the possessive pronouns causes problems for Condition B, and (iv) there is no reconstruction for Condition B.

We argue that the use of overt personal pronouns in Turkish seems to be subject to a more general restriction on subjects. The positions where the use of an overt personal pronoun is blocked are interpreted as a bound variable. We also argue that overt personal pronouns in Turkish are incapable of occurring in variable positions; hence they are sanctioned from the subject positions of the embedded clauses when they are co-indexed with a higher NP. I point out that this property of personal pronouns is crucial in that it explains the facts about Turkish anaphora. I proposed in the previous chapter that since the personal pronouns are sanctioned as bound variables, Turkish develops a special pronominal expression *kendisi* for these functions. Note that in many languages such as English, Arabic, Irish, personal pronouns are used

[98] Condition B has long been subject to studies which question its validity as a separate Binding condition. For instance, Reuland (2001:442) argues that Condition B is only a descriptive generalization. Neither GB nor Minimalism provides intrinsic reasons for its presence. Moreover, Hornstein (2006) considers Condition B as an elsewhere case where the anaphor binding fails to apply (the term "binding" is put for the ease of exposition here, recall that anaphor binding is explained as A- movement in Hornstein's (2006) system).

as bound variables and resumptives. Since this property is missing in Turkish, the language has *kendisi* which is able to act as resumptive and reflexive on the one hand, deictic on the other.

Pronouns carry φ-features and enter into agreement with the relevant functional projections. Unlike Indo-European and Semitic languages, the φ-feature sets of Turkish pronouns include person and number features but not gender. We propose that the interpretation of the φ-features of the pronouns differs in that the φ-features of the personal pronouns are fully interpretable in the course of the derivation. Those of *kendi*, on the other hand, are not interpretable at all. I will discuss this issue in the next chapter.

The early generative treatments (Lees and Klima 1963) suggest that pronoun is a substitute for a linguistically identical NP. Thus, in (60a-b) below, (b) is derived from (a).

(60) a. John spoke to Mary when John walked in.

b. John spoke to Mary when he walked in.

Partee (1975:82) Examples (15a-b)

In (60a-b) the third person masculine singular pronoun *he* is used as a substitute for the second occurrence of its antecedent *John*. Partee (1975:82) notes that such a view requires that the semantic interpretation operate on surface structure, since the application of the rule changes the meaning whenever the repeated noun phrase is anything other than a proper noun or a definite description. Note that the pronoun and its antecedent in (60a-b) are related to each other via co-indexation. Bach and Partee (1980:7) list the places where the pronoun co-indexation is used in the literature as:

(61) a. the same pronoun appears in several places in a sentence
He said that he was OK.

b. a pronoun appears together with a referring NP:
John said that he was OK

c. a pronoun appears together with a quantificational NP
No woman doubts that she was OK

d. a pronoun occurs in a relative clause
…the woman who said that she had found the answer

As seen in (61a-d), personal pronouns in English are used in a number of contexts including quantificational structures (61c) and resumption contexts (61d). What is common in these examples is that the pronoun is not bound in its own domain in accordance with Condition B of Binding Theory.

However, the facts are different for Turkish. Personal pronouns[99] are listed in (62a-f) below.

(62)

1st	*2nd*	*3rd*	
a. Ben	b. Sen	c. O	*Singular*
d. Biz	e. Siz	f. On-lar	*Plural*

The forms in (62a-f) are in nominative case and occur in the subject position. Given that Turkish is a *pro*-drop language (where the subject NPs are dropped on the basis of the agreement markers on the verb following the Null Subject parameter of Principles and Parameters approach to language, but see Öztürk 2001 for an opposing argument), the subject pronouns are generally omitted unless for contrastiveness, introduction of a new topic, emphasis or new information purposes are intended by the speaker

[99] I use the term personal pronoun as regular personal pronouns which we consider as deictic expressions. Moreover, following Partee (1975), I assume that personal pronouns are pragmatic in nature since they do not require their antecedent be present in the sentences. Consider (i).

(i) O gel-di
he come-PAST
"He came."

In (i) the 3rd person singular pronoun refers to a particular individual and the determination of the referent requires a linguistic context. That the referent may not be present in the sentence implies that we are dealing with a "free variable" use of a pronominal element compared to the cases where the pronominal element is bound within the set of an antecedent. We will discuss these cases throughout the section.

(Erguvanlı-Taylan 1986).[100] Pronouns in Turkish can be inflected with case, TAM II and agreement markers. This is illustrated in (63a-c) below.

(65) a. Ahmet *ben*-i gör-dü
Ahmet I-ACC see-PAST
"Ahmet saw me."

b. Ahmet'in gör-düğ-ü kişi *ben*-di-m
Ahmet-GEN see-DIK-3sg person I-PAST-1sg
"The person Ahmet saw was me."

c. Ahmet'in gör-düğ-ü kişi *ben*-im
Ahmet-GEN see-DIK-3sg person I-1sg
"The person Ahmet saw is me."

In (63a) the first person pronoun occurs in the complement position of the verb and is inflected with the accusative case, and in (63b-c) it occurs in the predicate position and is inflected by the past and person markers in (63b) and only by the person marker in (63c).

4.2.3.1. Condition B Wrongly Predicts Grammatical Sentences

This section discusses the subject position of the embedded clauses. In Turkish the subject position of the embedded clauses which is co-indexed with the subject NP in the matrix clause cannot host a pronominal category or a co-indexed R-Expression, except the special pronominal expression *kendisi*.[101] This is given in (64a-d).

[100] See also (Kornfilt 1984, Enç 1986b, Kerslake 1986, Özsoy 1988) for the syntax of the distribution of null vs. overt subject pronouns in Turkish. Enç (1986b) proposes that the overt subject pronouns are used for topic shift purposes. For the pragmatic and discourse aspects of the issue, see Ruhi (1992).

[101] However, there is a complement vs. adjunct asymmetry for the presence of a personal pronoun co-indexed with the matrix NP. In complement clauses, the co-indexed personal pronoun is totally ungrammatical. In some adjunct clauses with *'-kAn'* (while) adverbial suffix, on the other hand, the personal pronouns are acceptable. The following example is pointed out to me by Meltem Kelepir (p.c).

(i) ?Ali$_i$ [o$_i$ sinema-ya gid-erken] ben-im ev-de otur-ma-m-ı iste-di.
Ali he cinema-DAT go-while I-GEN stay.at.home-NOM-1sg-ACC want-PAST
"Ali wanted me to stay at home while he is going to the cinema."

In (i) above, the use of the personal pronoun seems to be grammatical. However, I propose that the pronoun in this case is not actually the subject of the embedded clause. It is an adverbial expression which

(64) a. *Ali$_i$ [*Ali$_i$* ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali Ali home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST

b. *???*Ali*$_i$ [o$_i$ ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali he home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST

c. Ali$_i$ [*kendi-si*$_i$ ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali himself home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST

d. Ali$_i$ [*ec*$_i$ ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST
"Ali wanted me to come when Ali is going home."

Note that the examples in (64a-b) are ungrammatical. The ungrammaticality of (64a) is expected given that R-expressions must be free everywhere. Condition C correctly predicts the ungrammaticality. The ungrammaticality of (64b), on the other hand, is not expected according to Condition B of Binding Theory. Note that *kendisi* and *ec* can occur in this position, hence the grammaticality of (64c) and (64d) respectively. Note that *kendisi* in (64c) is not interpreted as pronominal.

The unexpected ungrammaticality in (64a-b) might be considered as following from the Avoid Pronoun principle proposed in Chomsky (1982).[102] According to this principle, a pronominal expression and its antecedent cannot be too close to each other. We argue that Avoid Pronoun Principle falls short when we consider the examples where there is an overt pronoun in the subject position of the embedded clause and *pro* in the subject position of the matrix clause. Avoid Pronoun Principle predicts a grammatical sentence in the case given since the minimal distance condition between

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denotes a contrastive reading by which the actions of the two subjects (the subject of the nominalized embedded clause and the subject of the adjunct clause) are contrasted. The syntactic subject of the adjunct clause in this case is an *ec* which is co-indexed with the matrix subject. This claim is supported by the fact that in the absence of a different subject, the structure turns out to be ungrammatical. Consider (ii).

(ii) *Ali$_i$ [o$_i$ sinema-ya gid-erken] araba kullan-mak iste-di.
Ali he cinema-DAT go-while drive-INF want-PAST
"Ali wanted to drive while he was on the way to the movies."

[102] I thank A. Sumru Özsoy for bringing this to my attention.

the overt pronoun and its antecedent is observed. However, these structures are ungrammatical. Consider the example in (65).

(65) *pro$_i$ [on-un$_i$ gel-eceğ-in]-i söyle-di.
he-GEN come-NOM-3sg-ACC tell-PAST
"He said that he will come"

In (65) the matrix subject position is filled by *pro* which is licensed by the agreement marker on the matrix verb. Note that *pro* in the embedded subject position can bind *kendi* inside the embedded clause, as stated in the previous section. *pro* in the matrix clause is expected to bind the pronoun in the subject position of the embedded clause as well. However, this is not the case as the ungrammaticality of the structure in (65) indicates. Thus, Condition B can not explain the ungrammaticality of this sentence.[103]

We argue that this is related to a general ban on the pronunciation of variables in sentences. We propose that the subject position of these clauses can be filled by a variable which is phonologically realized as *kendisi*[104] (Note that NPs CAN occur in the embedded subject position- it is only when there is co-indexing between the subject

[103] Balkız Öztürk (p.c) has pointed out to me that the ungrammaticality of (65) might follow from the difference between strong vs. weak pronouns in *pro*-drop languages. It is also possible to think that we are dealing with Montalbetti's (1984) Overt Pronoun Constraint. Here, the crucial point is that the form *kendisi* is available in the offending personal pronoun position. I assume that the availability of *kendisi* as opposed to the unavailability of personal pronouns implies more than a distinction between the occurrences of strong versus weak pronouns in *pro*-drop languages.

[104] Aslı Göksel (p.c) notes that *kendi* without *'-sI'* in (64c) is grammatical, a fact which is contrary to what we argue for the phonetic realization of the variable positions. In line with Footnote 101, I propose that the use of *kendi* in that case involves a contrastive purpose. In other words, the structure in (64c) and one with *kendi* can be argued to be structurally different. In the former case, *kendisi* sits in the subject position of the embedded clause. In the latter, on the other hand, *kendi* is interpreted a special form of an anaphor which creates a contrastive interpretation. Note that it is not purely an emphatic use of it, but seems to be a new function which, to the best of my knowledge, is not documented before. *kendi* sits in an adverbial position akin to its emphatic use and *pro* subject occurs in the subject position of the embedded clause. The contrastive function of *kendi* is more obvious in the following example.

(i) Ali$_i$ [kendi$_i$ kebap yer-ken] misafir-ler-in-e çorba iç-ir-iyor-du.
Ali himself kebab eat-when guest-PL-3sg-DAT soup drink-CAUS-PROG-PAST
"Ali made his guests drink soup while(=in contrast) he ate kebab."

In (i) above, *kendi* contrasts the subject of the embedded verb *Ali* with the subject of the matrix verb *iç-*, *misafir-ler-in* (his guests).

position of the embedded clause and an NP in the higher clause that there is this restriction).

4.2.3.2. Condition B is too Strong

This section observes that the pronouns can be locally bound in a number of contexts. Consider the examples below.

(66) a. Sen-i_i *san*-a_i emanet ed-iyor-um.
you-ACC you-DAT entrust-PROG-1sg
"I entrust you to you"

b. Ben-i_i *ban*-a_i mahkum et-ti-n.
I-ACC I-DAT obliged.to-PAST-2sg
"You obliged me to me"

c. *?On-u_i *on*-a_i anlat-tı-m.
he-ACC he-DAT tell-PAST-1sg
"I talked him about him"

In (66a) the second person pronouns, in (66b) the first person pronouns occur. The examples in (66a-c) show that the two co-indexed pronouns occur in the same minimal domain (governing category/CFC in the sense of Chomsky 1981). Note that the third person pronouns are not licensed in these structures as (66c) shows.[105]

We argue that Condition B predicts the sentences in (66a-b) ungrammatical given that the pronouns are bound in their governing domains. However, the structures are grammatical. This is counterevidence to Condition B which holds that pronouns should be free in their governing category.

Another point for the explanatory weakness of Condition B with respect to Turkish pronouns comes with the distribution of *kendisi*. The first point we make for the use of *kendisi* is that it can occur where the overt personal pronouns cannot as in the

[105] This example is judged to be grammatical by some native speakers. Aslı Göksel (p.c) points out that the coreferential reading is still possible although it is not preferred. I leave this issue for further investigation as the grammaticality of the example does not affect the analysis provided here.

example (64c). Consider also the example (67) below in which *kendisi* occurs in the subject position of the embedded verb.

(67) Ali$_i$ [*kendisi*-nin$_{i/k}$ akşam gel-eceğ-in]-i söyle-di.
Ali himself-GEN evening come-NOM-3sg-ACC tell-PAST
"Ali said that he will come in the evening"

According to Condition B, *kendisi* is a pronominal form which is bound outside of its domain, hence the structure is grammatical. However, observe also that *kendisi* can also occur in simple clauses, i.e. in the same domain with its antecedent. Consider (68).

(68) Ali$_i$ *kendisin*-i$_i$ sev-iyor.
Ali himself-ACC love-PROG
"Ali loves himself"

In (68) *kendisi* acts as an anaphor, i.e. it is bound by its antecedent within its domain. In this case, Condition B seems to be violated. Note that the structure is ambiguous between reflexive (the same index with the subject) and pronominal (different index from the subject) readings. This implies that at LF the structure is mapped to two different LF representations.

One last point with respect to the Conditions A and B is that they require complementary distribution between where the pronoun is blocked and where the anaphor is licensed and vice versa. However, there are positions where the pronoun and the anaphor can occur together. Consider the example in (69).

(69) a. [Ali ile Veli]$_i$ *birbirleri*-nin$_i$ resim-lerin-i al-dı-lar
Ali and Veli each other-GEN picture-3pl-ACC take-PAST-3pl
"Ali and Veli exchanged each other's pictures."

b. [Ali ile Veli]$_i$ *pro*$_i$ resim-lerin$_i$-i al-dı-lar.
Ali and Veli picture-3pl-ACC take-PAST.3pl
"Ali and Veli took their pictures."

In (69a) the anaphor occurs where the *pro* is assumed to occur in (69b). Note that both structures are grammatical contrary to what Condition A and B predict.

Finally, note that the proposal that Condition B is problematic for Turkish anaphora is also related to the fact that pronouns in Turkish do not actually behave like pronouns in other languages. In many cases, personal pronouns behave like nominals, i.e. like R-expressions. They can be attached suffixes which usually attach to nominal heads. See Öztürk (2005) for a number of cases where personal pronouns behave like nominals in Turkish.[106] Note also that pronouns in many languages are considered D heads. However, their distribution in Turkish show that they are more likely to be considered N heads.

To conclude, in this section we argued that Condition B is problematic when we consider the distributional properties of the pronouns in Turkish. We propose that the ban on the overt pronoun use follows from our claim that the pronouns are blocked from the positions whose licensing is mediated via an A'- chain. We will discuss the proposal in detail in the next chapter. One note however is related to the conceptual necessity of Condition B. Hornstein (2006:49) notes that Binding Theory conditions are morpheme specific. If we consider pronouns, we can reach a clear understanding of what Hornstein (2006) tries to argue for. Hornstein (2006) notes that the distribution of only a subset of pronouns is explained by Condition B, those which are bound/referential pronouns. There are many different types of pronouns which are exempt from the Binding Theory: resumptives, expletives, deictic pronouns, intrusive pronouns. Looking from that angle, pronouns in Turkish seem a bit more complicated. Only personal pronouns in matrix clauses with the antecedent outside of the sentence are correctly predicted by Condition B. Consider *kendisi* in (70).

[106] I thank Balkız Öztürk for pointing this out to me.

(70) Ali_i Ahmet-e_k [Ayşe-nin_m *kendisin*-$i_{i/k/m}$ sev-diğ-in]-i söyle-di.
Ali Ahmet-DAT Ayşe-GEN him/herself-ACC love-NOM-3sg-ACC tell-PAST
"Ali told Ahmet that Ayşe loves him/herself"

In this example the pronominal expression *kendisi* can take *Ali*, *Ahmet* or *Ayşe* as its antecedent. If *kendisi* is a pronoun, binding of it by the local NP *Ayşe* is an apparent violation of Condition B. If it is an anaphor, that the non-local NPs *Ali* and *Ahmet* bind the reflexive is a violation of Condition A. This shows that Binding Theory conditions are morpheme specific as argued by Hornstein (2006). Thus, there seems to be no condition of Binding Theory which explains the distribution of *kendisi* in (70).

4.2.4. Condition C and R-Expressions

This section argues that Condition C seems to hold in Turkish and provides a discussion on different cases where Condition C effects are observed in the language. However, there are problematic cases for Condition C too. Let us begin with the paradigmatic examples of Condition C in language. Consider the examples in (71a-e).

(71) a. *Ali_i *Ali*-yi_i sev-iyor.
Ali Ali-ACC love-PROG
"*Ali_i loves Ali_i."

b. *Ali_i [*Ali*-nin_i gel-eceğ-in]-i söyle-di.
Ali Ali-GEN come-NOM-3sg-ACC tell-PAST
"*Ali_i said that Ali_i will come."

c. *O_i [*Ali*-nin_i gel-eceğ-in]-i söyle-di.
he Ali-GEN come-NOM-3sg-ACC tell-PAST
"*He_i said that Ali_i will come."

d. *O_i [[*Ali*$_i$ gel-ince] konuş-acağ-ımız]-ı söyle-di.
he Ali come-when talk-NOM-1pl-ACC tell-PAST
"*He_i said that when Ali_i comes we will talk."

e. *[Öğetmen-i_i sev-diğ-im] *Ali*$_i$
teacher-ACC love-DIK-1sg Ali
"*Ali_i, whom I love the $teacher_i$"

In all the examples above, the referential expression is bound by either another referential expression as in the case of (71a, b and e) or by a pronoun as in the case of (71c and d). Note that the structures in (71a-e) are ungrammatical. The ungrammaticality of these structures can be explained by Condition C which says that R-expressions must be free (not bound) everywhere. Hence, we can argue that Condition C holds in Turkish. However, there are problematic examples where a R-Expression can be bound by another one. Consider (72a-c).[107]

(72)[108] a. Ali hep *Ali*-den bahsed-er.
Ali always Ali-ABL talks.about-AOR
"Ali always talks about Ali."

b. Ali bir tek *Ali*-yi sev-er.
Ali only Ali-ACC love-AOR
"Ali only loves Ali."

c. Ali [sadece Ali-nin kazan-ma-sın]-ı iste-r.
Ali only Ali-GEN win-NOM-3sg-ACC want-AOR
"Ali wants only Ali to win."

Note that these examples cause a problem for Condition C given that Ali is bound in the sentence, by a local antecedent in (72a-b) and by a non-local antecedent in (72c). However, I point out that these structures involve lexical items such as *sadece*, *bir tek* (only) and *hep* (always) which have quantificational force. They take the second instance of the R-expressions in (72a-c) into their scope domain and transform them into a bound variable. As a bound variable, the position is pronounced as an R-expression, indicating that the R-expression is not present in the structure in narrow syntax.

[107] I thank Aslı Göksel for bringing these examples into my attention.

[108] Note that these examples are also present in English. However, I do not discuss the implications of these examples for English.

4.2.4.1. Condition C Effects

This section argues that Turkish presents evidence for the availability of Condition C effects. The following example from Mc Closkey (1990) is a violation of Condition C in English.

(73) *Who$_j$ did you think that he$_j$ said that Mary would marry t$_j$?
Mc Closkey (1990:211) Example (32)

In (73) the trace of the moved wh-word in the complement position of the lower verb is co-indexed with the pronoun *he* in an A- position. The pronoun c-commands the trace of its antecedent, i.e. the strong crossover violation. Hence Condition C is violated. Note that the following Turkish example in (74) is also ungrammatical. The ungrammaticality of this example can be explained with the strong crossover phenomena.

(74) *[Op_i [*Kendisi$_i$* [*pro*$_k$ t$_i$ sev-diğ-im$_k$]-i bil-en] adam$_i$
rp love-NOM-1sg-ACC know-REL man
"The man who knows that I love him"

In example (74) the resumptive pronoun *kendisi* is in the subject position of the relative clause and c-commands the trace of the empty operator in the complement position of the most deeply embedded clause. Note that the empty operator is the antecedent of the resumptive pronoun. We argue that the ungrammaticality of (74) can be explained by strong crossover violation given that the pronoun c-commands the trace of its antecedent.

Consider the examples in (75a-c) below where the trace of the empty operator is c-commanded by a pronoun.

(75) a. *O-nun$_i$ da [*t*] duy-duğ-u [*Ahmet$_i$* hakk*ı*ndaki söylenti]
he-GEN too hear-DIK-3sg Ahmet about rumor
"The rumor about Ahmet$_i$ that he$_i$ heard about"

b. *?Kendisi-nin$_i$ de [*t*] duy-duğ-u [*Ahmet$_i$* hakk*ı*ndaki söylenti]
rp-GEN too hear-DIK-3sg Ahmet about rumor
"*The rumor about Ahmet$_i$ that himself$_i$ heard about"

c. *pro$_i$* [*t*] duy-duğ-u [*Ahmet$_i$* hakk*ı*ndaki söylenti]
hear-DIK-3sg Ahmet about rumor
"The rumor about Ahmet$_i$ that *(he$_i$) heard about"

In (75a) the personal pronoun in the subject position of the relative clause c-commands the trace in the complement position of the relative clause. Note that the trace is co-indexed with the head noun which contains the antecedent of the pronoun. Likewise in (75b) *kendisi* occurs in the same position and in (75c) *pro* subject occurs in the same position and cause ungrammaticality. We argue that these structures exhibit strong crossover violations and can be explained with Condition C. However, given that the ungrammaticality of (75b) is less severe than the others, we can provide explanations outside the scope of Condition C in these cases too. Maybe the reason why (75a) is bad is related to the status of pronouns in subject positions. I leave the issue open to further research.

To conclude this section, we argued that Condition C holds in Turkish and provided a discussion of the Condition C effects, i.e. strong crossover phenomenon in Turkish examples.

4.3. Conclusion

In this chapter, I discussed the anaphoric dependencies in Turkish in light of Binding Theory conditions. The main conclusion of the chapter is that Turkish does not have pronoun-anaphor complemantarity of the sort discussed in English. That is to say, anaphoric expressions in Turkish do not exhibit a clear application of Binding Theory

principles. Based on three distinct expression (kendi, kendisi and personal pronouns), I have pointed out that the Binding Theory causes serious problems in explaining the facts observed in the language. Consider (76) below where I list the properties of these three types of expression in Turkish.

(76) The Distribution of *kendi*, *kendisi* and personal pronouns

	Anaphor	Pronominal	Resumptive	Emphatic	Logophoric	Adjectival
kendi	Yes	Yes[109]	No	Yes	No	Yes
kendisi	Yes	Yes	Yes	Yes	Yes	No
Personal pronouns	No	Yes	No	No	No	No

According to (76) above, *kendisi* seems to carry a composite of all the functions carried out by *kendi* and personal pronouns. I proposed in the chapter that while *kendi* and *kendisi* are of variable nature, personal pronouns receive only deictic interpretation. In the next chapter, I will support this with a discussion of bound variable anaphora in Turkish where personal pronouns are banned, but not *kendi* or *kendisi*.

Moreover, (76) shows that Turkish does not follow the pronoun-anaphor partition offered in the Binding Theory. The pronominal system of Turkish seems to have a three partite system where not only the distribution of the personal pronouns and anaphors, but also that of a complex pronominal expression *kendisi* is crucial for the exact nature of the pronominal system. Turkish seems to have a pronominal system where the pronouns are employed for a restrictive set of functions which includes deictic use, but excludes bound variable anaphora, *kendi* is employed for a set of functions including the reflexive, the bound variable, but excluding the resumptive function, and *kendisi*, as a complex pronominal expression, is employed for a set of functions which combines the functions of the former two. Thus, the pronominal

[109] Note that it has been observed that *kendi* can be used as a pronominal in a number of environments. However, I propose that the cases are actually instances of the adverbial use of *kendi*, not pronominal. See footnotes 101 and 104.

system of Turkish needs a three-partite system in order to explain the distribution of these grammatical formatives.

The discussion provided in the chapter implies the weakness of structural definitions for the anaphors or pronouns in Turkish. That is to say, the absence of pronoun-anaphor complementarity, the problematic nature of Conditions A and B and the absence of D head (but, see Arslan 2006 for the opposite view) in Turkish speak for a system where the anaphors and pronouns are defined functionally rather than structurally. Note that languages such as English have pronoun-anaphor complementarity which brings a structural distinction between anaphors and pronouns. In the absence of this distinction, one can conclude that anaphors and pronouns are more likely to be defined functionally in Turkish.[110]

A considerable part of the chapter is devoted to the discussion of non-local or long distance binding in Turkish. I have shown that this is possible in Turkish unlike languages such as English. Note that this creates problem for the nature of A- chains which are subject to the strict locality. I propose that the possibility of long distance binding is a consequence of the fact that the idea that there is a minimal domain in Turkish is suspicious, unlike languages such as English. The suspicious nature of having a well defined minimal domain in Turkish is seems to be the case in other grammatical phenomena related to movement.

In the next chapter, I will support this claim by a number of independent facts: (i) long distance control of PRO is available, and (ii) subject to subject raising, NP raising are suspicious in Turkish. This does not mean that locality is not observed in Turkish. However, locality based problems observed in A- chains led us to argue that A-chain operations such as binding and control in other languages can actually be A'- type

[110] I thank Balkız Öztürk for pointing this out to me.

in Turkish. That is to say, binding is mediated through operator-variable chains where a different sense of locality is observed. In the next chapter, I will discuss this possibility.

CHAPTER V

OPERATOR-VARIABLE CHAINS

This chapter expounds the proposal about resumptive chains put forth in Chapter 3 and relates them to the facts observed in Chapter 4. I aim at positing operator-variable chains through which binding and control phenomena and the licensing of null object constructions are mediated. First, I show that overt expressions *kendi* and *kendisi* and covert expressions PRO and *pro* (some instances of it) are actually variables. Then, I provide a licensing mechanism based on operator-variable chains for these categories.

5.1. Variable Nature of Anaphoric Expressions

This section presents support for the claim that I made in the preceding chapter: The anaphoric expressions *kendi* and *kendisi* are variables while personal pronouns are deictic pronouns. First, I discuss bound variable anaphora and show that only *kendi* and *kendisi* are licensed as bound variable in Turkish. Second, I discuss the contradiction data to show that *kendi* and *kendisi* are variables whereas personal pronouns are deictic pronouns, i.e. *pointing at* expressions with referential antecedents such as things, persons, places, times, etc.[111]

5.1.1. Bound Variable Anaphora

Bound variable pronouns do not fit into the definition of pronouns which holds that pronouns are linguistic objects used as the second occurrence of a NP. That is, they are not stylistic circumlocutions for a previously mentioned antecedent. Huang (2000:6) defines bound variable anaphora as consisting of an anaphor which does not refer to a

[111] See Bühler (1934) for the discussion of deictic phenomenon in linguistics. He divides deixis into three parts: person, time and place.

fixed individual in the world, but is interpretable by virtue of its dependency on some quantificational expression in the structure. The example in (1) shows this.

(1) Each woman loves her mother.
For each x:x a woman, x loves x's mother

Hendrick (2005:104) Example (1)

In (1) the pronoun *her* does not refer to a particular individual in the world. Instead, it receives a bound variable reading in which it is interpreted with the quantificational antecedent *everyone*. Hendrick (2005:104) notes that in formal English and Tongan, bound variable pronouns are third person singular regardless of the semantic number of the antecedent. This is given in (2).

(2) *'Oku inu e he toko taha kotoa'ene sota.*
PRES drink ERG the people one all 3-SNG soda.
'Everyone will drink his soda.'

Hendrick (2005:104) Example (4)

Different languages have been observed to employ different pronominal expressions for the bound variable anaphora. Huang (2000:6) notes that English allows only pronouns in order to express bound variable reading between the matrix subject and the embedded subject. Languages such as Serbo-Croatian, on the other hand, employ gaps in the same position. Chinese allows both categories (gaps and reflexives) while Marathi allows only reflexives in the corresponding position (Huang 2000:6). As we will see below Turkish does not allow personal pronouns similar to Marathi.

Evans (1980) notes that bound variable pronouns require a c-commanding antecedent. This is shown in (3a-b).

(3) a. Every senator said that he would vote for the bill.
b. [If every senator voted for the bill] he was re-elected.

Hendrick (2005:105) Examples (10 and 11 respectively)

Bound variable reading of the pronoun *he* is possible in (3a) but not in (3b) given that the antecedent within the conditional clause does not c-command the variable pronoun in (3b). Partee (1975) notes that the clearest cases of bound variable anaphora involve antecedents such as *every man* which are singular in form but do not refer to individuals as in the example (4).

(4) Every man put a screen in front of him.

Partee (1975:79) Example (1)

The pronoun *him* in (4) is understood as anaphorically related to the NP *every man*, but clearly does not refer to a particular individual.

5.1.1.1. Personal Pronouns in Turkish and the Lack of Bound Variable Interpretation

Note that we proposed that personal pronouns in Turkish are deictic pronouns in that they are interpreted as coreferential with an NP in discourse. That is to say, they have to be bound by a referential antecedent in previous discourse rather than a quantificational antecedent which is non-referential in nature. When they are bound by a quantificational antecedent, we expect these pronominals to receive bound variable interpretation. However, examples in (5a-b) indicate that this is not the case.

(5) a. *Herkes*$_{i}$ [öğretmen-in *on*-u$_{*i/\ k}$ çağır-dığ-ın]-ı san-ıyor.
everyone teacher-GEN he-ACC call-NOM-3sg-ACC think-PROG
"Everyone thinks that the teacher called him"

b. *Herkes*$_{i}$ [*on*-un$_{*i/\ k}$ kitab-ı oku-yabil-eceğ-in]-i san-ıyor.
everyone he-GEN book-ACC read-ABIL-NOM-3sg-ACC think-PROG
"Everyone thinks that he can read the book"

In (5a) the quantificational antecedent binds the personal pronoun in the complement position of the embedded verb. In (5b), on the other hand, it binds a pronominal

element in the subject position of the embedded clause. Although the antecedent and the pronominal elements are not in the same domain, i.e. Condition B is not violated, and although the quantificational antecedent c-commands the pronominal expression, bound variable interpretation of the pronominal is blocked. That is to say, the pronominal elements in the embedded subject position can only refer to a referential antecedent as the grammaticality of the k reading indicates.

Assuming that the i reading involves operator-variable structure under c-command (Partee 1975), our prediction in Chapter 3 that personal pronouns in Turkish cannot occur in operator-variable chains is borne out. The reason behind this is that they have deictic interpretation, not bound variable interpretation.

Another context where the use of a personal pronoun is blocked comes with the cases where the antecedent within a conditional clause does not c-command the pronominal in the matrix clause. This is labeled in the literature as "lazy anaphora or donkey anaphora" (Huang 2000, Boeckx 2003c, Safir 2004). Consider (6a-b).

(6) a. ?/* Kim-in araba-sı var-sa bu kriz-de *on*-u sat-ar.[112]
who-GEN car-3sg exist-CON this crisis-LOC it-ACC sell-AOR
"Whoever has a car, he will sell it in this crisis."

b. Kim-in arabası var-sa bu kriz-de [*ec*] sat-ar.
who-GEN car-3sg exist-CON this crisis-LOC sell-AOR
"Whoever has a car, he will sell it in this crisis."

Note that (6a) seems to be less readily grammatical than (6b) where a null object instead of an overt pronoun is used in the same position. I propose that the availability of

[112] The grammaticality judgments vary for this example in that some native speakers find it grammatical. This may be a result of the fact that the pronoun is not c-commanded by its antecedent in the conditional clause, hence a lazy pronoun in the sense that the reference is considered as irrelevant for syntax (Geach 1964 cited in Partee 1970). The issue is open for further research. See Partee (1970), Boeckx (2003c) for a discussion. One note however is that not all pronominal expressions require c-command. Take *bir* (one) for instance, when it occurs in the second conjunct of a sentence, it is not c-commanded by its antecedent.

(i) Ali *iki elma* al-dı ve *bir*in-i bana verdi.
Ali two apple buy-PAST and one.of.them-ACC I-DAT give-PAST
"Ali bought to apples and gave me one of them"

bound variable reading in (6b) without the c-command is due to the nature of operator-variable chains in Turkish. That is to say, c-command is not necessarily required for all Operator-variable chains in Turkish. We will also discuss this with respect to the null object constructions where the sloppy identity reading does not require c-command as in the case of Japanese null object constructions (Hoji 1998).

5.1.1.2. *kendi* and Bound Variable Interpretation

Note that we proposed that pronominal expressions are not bound by quantificational antecedents. This is true for the personal pronouns as we have discussed so far. However, *kendi* is bound by a quantificational antecedent in a number of contexts. Consider (7).

(7) Herkes$_i$ [*kendin*-i$_i$ başbakan] san-ıyor
everyone himself-ACC prime minister think-PROG
"Everyone considers himself prime minister"

The subject of the ECM clause in (7) can be interpreted as bound by the quantificational expression in the matrix subject. Likewise, the emphatic *kendi* can act as a bound variable when bound by a quantificational subject. This is given in (8).

(8) Herkes$_i$ okul-a *kendi*$_i$ git-ti.
everyone school-DAT himself go-PAST
"Everyone went to school by himself."

We propose that the bound variable reading of the form *kendi* comes with the fact that the φ-features of *kendi* are not interpretable. That is, different from personal pronouns, reflexive pronouns enter into the derivation without any semantic content, hence are not part of the numeration.

5.1.1.3. *kendisi* and Bound Variable Interpretation

Like *kendi*, *kendisi* allows bound variable interpretation when bound by a quantificational antecedent in the subject position. I take this property of *kendisi* as support for the claim that *kendisi* acts as variable under the restriction of a quantificational expression. Consider (9a-b).

(9) a. Herkes$_i$ [öğretmen-in *kendi-sin*-i$_{i/k}$ çağır-dığ-ın]-ı san-ıyor.
everyone teacher-GEN himself-ACC call-NOM-3sg-ACC think-PROG
"Everyone thinks that the teacher calls him"

b. Herkes$_i$ [*kendi-si-nin*$_{i/k}$ kitab-ı oku-yabil-eceğ-in]-I san-ıyor.
everyone himself-GEN book-ACC read-ABIL-NOM-3sg-ACC think-PROG
"Everyone thinks that he can read the book."

The form *kendi-si* occurs in the complement position in (9a) and in the subject position in (9b) of the embedded clause. Both instances of *kendi-si* can be bound by the quantificational antecedent *herkes* (everyone) in the matrix subject position. This shows that it can receive a bound variable interpretation.

Note that the examples in (9a-b) are ambiguous between the bound variable reading and deictic (referential) reading of the form *kendi-si*. This is in line with what I have pointed out in Chapter 3 on *kendi-si*. It is a composite of pronominal and anaphoric functions. Recall also that it is the composite of *kendi* and *'-sI'*. Here, I assume that the person and number features given by *'-sI'* are mapped to a discourse antecedent via a deictic chain in which no A'- operator is at work.

5.1.2. Contradiction Data

The aim of this section is to provide additional support for the claim that *kendi* and *kendisi* are variables while personal pronouns are deictic pronominals. I make use of the data introduced in Enç (1986a) and Hornstein (2006) to show the variable nature of these forms. Consider (10a-b) from Enç (1986a).

(10) a. John wants each of you to describe the town where *you* grew up.

b. John wants each of us to describe the town where *we* grew up.
Enç (1986a) (cited in Hornstein 2006:53) Examples (9a-b) respectively

Enç (1986a) notes that (10a-b) each have an interpretation where the pronouns are interpreted as bare variables. In this way, the sentences do not need to presuppose that the addressee (you) or the speaker (we) hail from the same place. Hornstein (2006:54) notes that both sentences in (10a-b) support distributed reading: *Mary, Mike*, and *Sue* are the addressees and hail from different regions and John wants to know where each of them has grown up. In this way, pronouns *you* and *we* lose their deictic character and are interpreted as bound variables.

Hornstein (2006) argues for the same effects of personal pronouns and reflexives in English by using the contradiction data. Consider (11) which is contradicted by the sentences in (12a-c).

(11) [Only John]$_i$ thinks that he$_i$ is smart.

(12) a. Wrong! Mary thinks that she is smart too.
b. Wrong! The boys over there think that they are smart too.
c. Wrong! I think that I am smart and you think that you are.
Hornstein (2006:53) Examples (6) and (7a-c) respectively

In (11) the pronoun is bound by the Operator [only John]. In order for the sentences in (12a-c) to contradict (11) it must be the case that the φ-features of *he* in (11) do not carry any semantic load. Given that the sentences in (12a-c) are grammatical and contain pronouns which differ from *he* with respect to at least one φ-feature, the pronouns *he, she, we*, etc. are bare variables without φ-feature restriction. Hornstein (2006:54) notes that this is true for the reflexive pronouns too. When they are bound by [only x] Operator, the sentence can be contradicted by sentences which contain pronouns with different φ-feature sets.

Let us now see if Turkish exhibits the same effect for *kendi* and *kendisi*. Consider (13) which is formed in a similar way with examples in Hornstein (2006).

(13) Sadece Ali$_i$ *kendin*-i$_i$ akıllı san-ıyor.
only Ali himself-ACC smart think-PROG
"Only Ali considers himself intelligent."

The contradiction of this statement involves examples such as (14a-b), but not (14c).

(14) a. Hayır, ben$_i$ de kendim-i$_i$ akıllı san-ıyor-um
no, I too myself-ACC smart think-PROG-1sg
"No, I consider myself intelligent too"

b. Hayır, onlar$_i$ da kendilerin-i$_i$ akıllı san-ıyor-lar.
no, they too themselves-ACC smart think-PROG-3pl
"No, they consider themselves intelligent too"

c. *Hayır, Mehmet de Ali-yi akıllı san-ıyor.[113]
no, Mehmet too Ali-ACC smart think-PROG
"No, Mehmet too considers Ali smart."

The form *kendi* (13) is bound by [*sadece Ali*] Operator in the subject position. As the contradiction sentences in (14a-b) imply, the φ-features of the form *kendi* are not interpretable. That is to say, in (14a) the φ-feature set involves a new person feature, and in (14b) the set contains a new number feature. In (14c), on the other hand, the feature set remains the same, but the structure is ungrammatical as a contradiction to (13). This shows that *kendi* is a variable rather than a deictic pronoun. *kendi* is not interpreted with its φ-features in the structure but under a derivational process which licenses it.

Note that *kendisi* has a similar but not identical effect when bound by an operator. Consider (15) which is contradicted by (16a-b).

[113] The grammaticality judgments vary for this example in that some native speakers find this example grammatical. For those who find the structure grammatical, the φ-feature set of *kendi* seems to be interpretable. I leave the issue open for further studies as a result of which the different judgments will receive a theoretical explanation.

(15) Sadece Ali$_i$ *kendi-sin*-i$_{i/k}$ akıllı san-ıyor.
only Ali himself-ACC smart consider-PROG
"Only Ali considers himself smart"

(16) a. Hayır, ben$_i$ de *kendi-m*-i$_i$ akıllı san-ıyor-um.
no, I too myself-ACC smart consider-PROG-1sg
"No, I consider myself smart too."

b. Hayır, Mehmet de on-u$_k$ akıllı san-ıyor.
no, Mehmet too he-ACC smart consider-PROG
"No, Mehmet considers him smart too."

The sentence in (15) which contains *kendi-si* can be contradicted by both (16a) and (16b). In (16a) *kendisi* is interpreted as a variable given that the φ-feature set of the pronoun in (16a) is different from that of (15). In (16b), on the other hand, *kendisi* has a deictic interpretation given that φ-feature set remains the same. I propose that this follows from the claim that I made earlier that *kendisi* has a dual function. In the presence of an A'-operator, it receives a variable interpretation while in the absence of such an operator; it takes a discourse antecedent in the same way as personal pronouns.

To conclude this section, I have pointed out that the claim that *kendi* and *kendisi* are variables finds empirical support. First, these forms but not personal pronouns can occur in a position bound by a quantificational antecedent and receive bound variable reading. Second, *kendi* and *kendisi* allow their φ-features not to be interpreted in the course of derivation. Hence, they are licensed as bound variables instead of deictic pronouns. In the next section, I discuss the variable nature of covert expressions, *pro* and PRO.

5.2. Variable Nature of Covert Expressions

This section argues that the empty categories in the subject and the complement positions in embedded clauses are licensed as bound variables.

Languages have been observed to have covert phrasal categories which are phonologically absent but syntactically and semantically present in the structure. These empty categories occur in subject, complement and adjunct positions as null subjects, null objects, empty operators, and traces, i.e. copies. Within the generative tradition, four types of empty categories have been identified for theta and EPP reasons. These empty categories are *pro*, PRO, NP-traces and wh-traces.

PRO and *pro* are assumed to be representationally present in the subject position of the sentences given that clauses must have subjects (EPP) and theta roles of each predicate have to be saturated in the course of derivation (Theta theory). NP-traces and wh-traces are assumed to be derivationally present at the movement site as a result of the relevant movement.[114] NP traces are assumed to be left behind as a result of A-movement, and wh-traces are assumed to result from A'- movement. In this section, we will briefly discuss properties of empty categories in Turkish.[115]

5.2.1. PRO

Null subjects of the infinitival clauses have been investigated in the literature and the issue is discussed under Control Theory due to the absence of agreement morphology on the verb (Chomsky 1982, Chomsky and Lasnik 1993, Hornstein 1999 among others). In other words, these structures have been considered instances of control structures and with the GB framework, were assumed to include a PRO, a pronominal anaphor licensed by and interpreted with the closest NP antecedent via a control mechanism. The questions raised for these elements can be classified as focusing on (i) the

[114] We distinguished between the empty categories which are representationally present and those which are derivationally present in the sentence for the ease of exposition. There are analyses which consider the pronominal categories PRO and *pro* as present in the structure as a result of movement. See Hornstein (1999, 2001), Boeckx and Hornstein (2003, 2004, 2006) for a discussion.

[115] See Özsoy (1984) for a discussion of empty categories in Turkish.

interpretation (i.e. co-indexation possibilities), and (ii) the syntactic licensing of these elements.[116]

5.2.1.1. PRO Receives Bound Variable Reading

The empty category in the subject position of an infinitival clause can receive a bound anaphoric variable reading when bound by a quantificational expression. This is given in (17).

(17) Herkes$_i$ [PRO$_i$ koş-mak] iste-di.
everyone run-INF want-PAST
"Everyone wanted to run"

(17) shows that PRO receives a bound variable reading in the same way as *kendi* and *kendisi* discussed in the previous sections. This can be taken as support for the variable

[116] With respect to their interpretational properties, null subjects of infinitical and adjunct clauses are analyzed in the literature as having a strict anaphoricity with their antecedents. That is, the null argument in these positions is interpreted as an obligatory PRO in the sense of Williams (1980).

As for the licensing of null subjects, a number of proposals have been made in both GB and Minimalism (Chomsky 1982, Chomsky and Lasnik 1993, Hornstein 1999, Landau 2001). GB style proposals are based on Control Theory, a grammar module which is responsible for the licensing of null subjects in the absence of verbal agreement. In this Binding theoretic approach to control structures (Chomsky 1982), the null argument, PRO is licensed by a control mechanism respecting locality, which is basically an indexation procedure between an overt NP and the null argument interpreted with it.

The Null case approach (Chomsky and Lasnik 1993 and Martin 2001) is the second approach to these structures. It proposes a similar licensing mechanism for the null subject in adjunct clauses with PRO analysis in GB era. However, it should be noted that PRO in this approach is a null case assigned element receiving its interpretation from the most local antecedent.

An alternative approach to these structures is proposed by Hornstein (1999) who reduces control structures to A- movement, similar to NP raising. Hornstein (1999) proposes that control structures do not include PRO but are derived via NP movement on a par with raising constructions. The movement of the subject NP is to (i) θ-positions to check θ-features of the verbs, (ii) Spec-TP of non-finite clauses to check EPP and (iii) Spec-TP of finite clauses to check case.

A different approach for null subjects is introduced by Landau (2001 and 2004) who argues that PRO must be sensitive to the distribution of Case and Agr on T and C heads. In this approach, obligatory control is an instance of AGREE, a local operation interacting with feature checking and deletion.

The status of PRO in Turkish syntax has been investigated by Meral (2006b), Oded (2006), Oded and Öztürk (2006). The crucial point in these studies is that PRO can not be licensed via NP movement proposed by Hornstein (1999) due to the fact that PRO can have split antecedents and deriving subject control in adjunct control cases causes problems with respect to the sideward movement proposed by Nunes (1996). See Erguvanlı-Taylan (1996) for the semantics of Control in Turkish.

Note that PRO has been considered as strictly anaphoric in that it has to be interpreted with its antecedent in a given local domain. We restrict ourselves to null subjects in adjunct clauses where we propose that PRO receives a variable reading, a fact indicating the bound variable nature of PRO.

treatment of PRO. Moreover PRO in the subject position of adjunct clauses provides further evidence for the variable analysis. Consider (18).

(18) Ali_i [ec_i sınav-ı geç-ince] çok sevin-di, $Mehmet_k$ de [$ec_{i/k}$] sevin-di.
Ali exam-ACC pass-when much please-PAST Mehmet also please-PAST
"Ali was pleased when he passed the exam, and Mehmet was pleased too."

In (18) the subject position of the adjunct clause is empty and the adjunct clause is elided in the second conjunct of the sentence. If the empty position is interpreted as a bound variable, we should have both sloppy and strict identity readings given in (19a-b).[117]

(19) a. sloppy identity reading: Mehmet was pleased that he passed the exam.
b. strict identity reading: Mehmet was pleased that Ali passed the exam.

Note that the structure in (18) is ambiguous between the sloppy and strict identity readings given in (19a-b). This supports our proposal that the subject position of the adjunct clauses is filled by a variable expression.

5.2.1.2. Syntactic Evidence for Variable Treatment of PRO

There is syntactic evidence for the variable nature of the empty position inside the infinitival and adjunct clauses.

5.2.1.2.1. PRO in Resumptive Structures

The empty category in the subject position of the infinitival structures can be co-indexed with a gap resulting from the A'- movement of the null operator in the subject

[117] The example in (18) is not ambiguous according to some native speakers. This might be due to the absence of c-command requirement on sloppy identity reading in these structures. The issue needs further investigation.

relative clauses. This is exemplified in (20a). However, it can not be co-indexed with a resumptive pronoun as the ungrammaticality of (20b) shows.

(20) a. [*ec*$_i$ [ec$_i$ koş-mak] iste-yen] adam$_i$
run-INF want-REL adam
"The man who wants to run"

b. *[*kendi-si*$_i$ [ec$_i$ koş-mak] iste-yen] adam$_i$
rp run-INF want-REL adam
"The man who himself wants to run"

Note that the resumptive pronoun in (20b) is not grammatical though the emphatic reading with the infinitival verb is available. This shows that the empty category in the subject position cannot participate in an A'- dependency formed with an overt pronominal expression. Recall that we explained the ungrammatical cases like the one above in section 3.4.5.1 with the pronunciation of the subject positions in operator-variable chains. That is to say, a resumptive cannot occur either in the subject position of the adjunct clause or in the subject position of the relative clauses in cases where the adjunct clause is embedded under a subject relative clause. We can explain the ungrammaticality of (20b) if we assume that PRO is licensed via operator-variable chains and the Op cannot bind an overt variable in the presence of two variable positions in subject positions of the two clauses.

Consider also (21a-b) where the empty category in the subject position of these adjunct clauses cannot be bound by a resumptive pronoun in the same way as the empty category in the subject position of complement clauses.

(21) a. *[Kendisi$_i$ [ec$_i$ koşar-ken] ben-i gör-en] adam$_i$
rp run-while I-ACC see-REL man
"The man who saw me while he was running."

b. ?[Kendisi$_i$ ben-i$_k$[ec$_k$ koşar-ken] gör-en] adam$_i$
rp I-ACC run-while see-REL man
"The man who saw me while I was running."

In (21a) a resumptive pronoun in the highest subject position is co-indexed with the empty category in the subject position of the adjunct clause and the structure is ungrammatical. This suggests that the *ec* is subject to the general ban on pronominal expressions under the restriction of an A'- operator. Observe that (21b) is grammatical where the empty category is not under the restriction of the A'-operator given that it is not co-indexed with the resumptive pronoun.

5.2.1.2.2. PRO can Only be Pronounced as *kendisi*

When Bound by Matrix Subject

Recall that R-expressions and personal pronouns can occur in the subject position of adjunct clauses. However, the overt expressions in the embedded subject position cannot be co-indexed with the matrix subject except for the complex pronominal *kendi-si*. The relevant examples are repeated here as (22a-c).

(22) a. *Ali$_i$ [*Ali*$_i$ ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali Ali home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST
"Ali wanted me to come when Ali is going home."

b.[118] *Ali$_i$ [*o*$_i$ ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali he home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST
"Ali wanted me to come when he is going home."

c. ?Ali$_i$ [*kendi-si*$_i$ ev-e gid-erken] ben-im gel-me-m-i iste-di.
Ali himself home-DAT go-when I-GEN come-NOM-1sg-ACC want-PAST
"Ali wanted me to come when himself is going home."

Note that the examples in (22a-b) are ungrammatical. The ungrammaticality of (22a) is expected given that R-expressions must be free everywhere. The ungrammaticality of

[118] This example is judged to be grammatical by some native speakers. See footnotes 101 and 104 for an explanation.

case (22b), on the other hand, is not expected according to Condition B of Binding Theory. (22c) is grammatical given that *kendi-si*, a variable expression, instead of a personal pronoun which receives only a deictic interpretation.

I conclude that the subject position of the adjunct clauses is reserved for a bound variable expression (overt or covert) when co-indexed with the matrix subject. In view of these facts, we propose that the subject position in the adjunct clauses is not an instance of PRO, but of a bound variable. This implies that there is an operator in Spec-CP position through which the subject position is interpreted.

5.2.2. *pro*

Within the Chomskyan typology of NPs, *pro* has been assumed to be the covert counterpart of a NP in the subject position usually licensed by the overt agreement on the verb (Jaeggli 1984, Kornfilt 1984). However, some languages such as Chinese (Huang 1984, 1991, Pan 2005), Italian (Rizzi 1986), Brazilian Portuguese (Raposo 1986), Kinande (Authier 1988), Japanese (Hoji 1998, Otani and Whitman 1991, Takahashi 2008) have been observed to have null objects as well as null subjects, and *pro* is assumed to be present in the object position of these languages. In this section, we will discuss the properties of *pro* occurring in the subject and the object positions in a sentence.

We propose that *pro*s in Turkish are of two types, (i) *pro*s which are interpreted as discourse bound pronominals conditioned by pragmatic factors, and (ii) *pro*s which are interpreted as bound variables licensed by a covert operator.

5.2.2.1. *pro* in Subject Position

Turkish is a null subject language and the properties of Turkish *pro* have been studied in Kornfilt (1984), Özsoy (1988) and Öztürk (1999, 2001). In Turkish, null subjects are licensed by the overt agreement markers on the predicate as illustrated in (23a-f).

(23) a. *pro* git-ti-*m* 'went-1sg' d. *pro* git-ti-*k* 'went-1pl'
b. *pro* git-ti-*n* 'went-2sg' e. *pro* git-ti-*niz* 'went-2pl'
c. *pro* git-ti-*ø* 'went-3sg' f. *pro* git-ti-*ler* 'went-3pl'

Note that the null subjects in (23a-f) above are licensed by the agreement markers on the matrix predicate. Note that the same is true for the null subjects in nominalized complement clauses in which the overt subjects are inflected with the genitive case, and the null subjects are licensed by the overt morphological agreement from the nominal paradigm as given in (24) below.

(24) Ali [*pro* var-dığ-*ım*]-ı bil-iyor.
Ali arrive-NOM-1sg-ACC know-PROG
"Ali knows that I have arrived."

The *pro* subject in the embedded clause in (24) is licensed by the agreement morphology on the embedded verb which is nominalized.

I propose that *pro*s in the matrix subject position are interpreted as discourse bound pronominals which have deictic properties. Their interpretation depends on the pragmatic factors rather than syntactic relations within the sentence. *pro*s in complement clauses, on the other hand, can be interpreted as both bound variables which are licensed by not the agreement morphology on the predicate but via an operator-variable configuration, and discourse bound pronominals which have deictic nature.

Note that a *pro* subject in the complement clause can not be replaced by a personal pronoun but with the form *kendi-si*. When a *pro* subject of the matrix clause is

replaced by the complex pronominal expression *kendi-si* the sentence can receive an emphatic or honorific interpretation with the subject. This asymmetry is shown in (25a-b).

(25) a. Ali$_i$ yarış-ı [*pro*$_i$ / *kendi-si*-nin$_i$ / *o*-nun$_{-i/k}$ kazan-acağ-ın]-ı san-ıyor.
Ali race-ACC himself-GEN he-GEN win-NOM-3sg-ACC think-PROG
"Ali thinks that he will win the race."

b. *pro* / *kendi-si* git-ti.
himself go-PAST
"He went by himself."

The complex pronominal expression in the subject position of the embedded clause in (25a) is interpreted as the subject and is co-indexed with the matrix subject. Both *pro* and *kendisi* can function as the subject of the embedded clause. In (25b), on the other hand, the complex pronominal expression cannot be replaced with *pro* subject given that *kendi-si* is interpreted as either an emphatic pronominal (He went by himself) or an honorific pronominal. This shows that we are dealing with different *pro*s in (25a) and (25b). Also, there is a difference between *pro* and *kendisi* in (25a). The use of *kendisi* creates a contrastive focus reading of the subject.[119]

Second, *pro* in the embedded clauses can receive bound variable interpretation as illustrated in (26).

(26) Herkes$_i$ [*pro*$_i$ yarış-ı kazan-acağ-ın]-ı san-ıyor.
everyone race-ACC win-NOM-3sg-ACC think-PROG
"Everyone thinks that (he) will win the race."

Following these facts, I conclude that *pro* in the subject position of the matrix clauses can only be interpreted as a discourse bound pronominal element as in the same way with personal pronouns. *pro*s in embedded subject positions, on the other hand, are more likely to be interpreted as a bound variable as in the case of complex pronominal

[119] I thank Meltem Kelepir for pointing this out to me.

expressions in the same position although it is also possible to interpret them as discourse bound pronominals.

5.2.2.2. *pro* in the Object Position

Languages have been observed to have a covert expression in the complement position of the verbs whose presence is assumed for theta reasons. These null objects have been investigated in detail within the generative tradition. In this section we consider these covert expressions and propose that they are bound variables rather than instances of *pro*s licensed by the overt morphological agreement.[120]

I propose that null objects in Turkish can receive bound variable reading instead of a pronominal one in many cases. The studies on null objects have revealed a number of diagnostics for the variable status of a null object in language. The availability of sloppy identity reading under VP-Ellipsis is one which has been introduced by Huang (1984) and extensively discussed in other languages including Japanese (Otani and Whiteman 1991 and Hoji 1998), Turkish (Öztürk 2006). The availability of the sloppy identity reading for the null object in VP Ellipsis structures has been taken as evidence for the variable status of null objects. However, the unavailability of the same reading implies that null objects can only have a pronominal interpretation rather than a variable reading.

[120] The syntactic and semantic status of null objects in languages including Chinese (Huang 1984, 1991) and (Pan 2005), Imbabura Quechua, Korean and Thai (Cole 1987), Italian (Rizzi 1986), Japanese (Otani and Whiteman 1991), Hoji (1998) and Takahashi (2008), and Turkish (Azaryad 1990, İnce 2001, 2004, Öztürk 2006, Meral 2008a) have received much attention in the generative theory. The analyses proposed in the literature have mainly focused on (i) the interpretation and the syntactic status, and (ii) the syntactic licensing of these null arguments. The issue has also been discussed with respect to the configurationality vs. non-configurationality of grammar proper. The absence of the overt morphological agreement system for the object is noted as an important aspect of the problem.

The analyses with respect to the interpretation of null objects in language have raised the question of whether these null elements receive a pronominal reading or a bound variable reading. The pronominal reading implies the presence of an object *pro* which is subject to Condition B of Binding Theory whereas a bound variable reading implies the presence of a variable bound by an empty operator. Italian (Rizzi 1986), Japanese (Hoji 1998) and Turkish (Öztürk 2006) are argued to be languages which have a pronominal reading in a null object structure. However, Otani and Whiteman (1991) for Japanese, Huang (1984 and 1991) and Pan (2005) for Chinese and Meral (2008b) for Turkish argue that null objects in these languages have variable reading.

5.2.2.2.1. Availability of Sloppy Identity and Distributive Reading

Consider (27) which exemplifies a null object construction where the first clause includes an anaphoric object bound by the matrix subject and the second one a null object.

(27) [Herkes$_i$ *kendin*-i$_i$ eleştir-di] [sadece Ali$_k$ [*no*]$_k$ eleştir-me-di]
everyone himself-ACC criticize-PAST only Ali criticize-NEG-PAST
"Everyone criticized himself, only Ali did not do so."

The null object in the second clause of (27) seems to be interpreted as a bound variable, hence a sloppy reading is available. Moreover, null objects can receive the distributive reading alongside the collective reading in certain contexts. This is given in the example (28) below.

(28) Hasan [*no*]$_i$ azarla-yınca herkes$_i$ ağla-mağ-a başla-r.[121]
Hasan scold-when everyone cry-INF-DAT start-AOR
"When Hasan scolds (him$_i$), everyone$_i$ starts to cry."
Multiple individual (collective reading): Yes
Single individual (distributive reading): Yes

Note that both the multiple individual and the single individual readings are available in (28). In the first reading, there is a group of people that the matrix subject *Hasan* scolds, and in the second reading, *Hasan* scolds the individuals in that group. We hold that the

[121] Following İnce (2004), Öztürk (2006) argues that the absence of distributive reading in (i) below shows that the null object is of a pronominal category rather than a bound variable. If it were a bound variable, distributive reading would also be possible. The example below is cited from Öztürk (2006) who in turn cites İnce (2004).

(i) [Hasan [no]$_i$ azarla-yınca] herkes$_i$ ağla-mağ-a başla-*dı*.
Hasan scold-when everyone cry-INF-DAT start-PAST
"When Hasan scolded (him$_i$), everyone$_i$ started to cry."
Multiple individual (collective reading): Yes
Single individual (distributive reading): No
İnce (2004:3) cited in Öztürk (2006) Example (11c)

However, following Meral (2008a), I propose that the obligatory collective reading in (i) has nothing to do with the pronominal nature of the null object but is due to the past tense marker on the verb. When the sentence is introduced with the aorist marker rather than past tense, both collective and distributive readings become available as shown in (28) in the text.

availability of the second reading, the distributive reading, argues for the bound variable nature of the null object.

Another support for the bound variable treatment of the null objects comes with the availability of the sloppy identity reading in VP ellipsis contexts, a fact observed in Huang (1984) for Chinese. In (29) below, the object position of the first part of the sentence is filled by an anaphoric expression *kendin-i* (himself) which is co-indexed with the subject. The object position in the second part of the sentence is not pronounced, hence a null object.[122]

(29) Ali$_i$ *kendin*-i$_i$ teselli et-ti, Veli$_k$ de [*no*]$_{i/k}$ teselli et-ti.
Ali himself-ACC console-PAST Veli also console-PAST
"Ali$_i$ consoled himself$_i$ and Veli did so."
Sloppy identity reading: Yes (preferred)
Strict identity reading: Yes

The null object in (29) can be interpreted as both *Ali* and *Veli*. In other words, both sloppy and strict identity readings are available for the null object, a fact which constitutes another evidence for the variable status of the null object. The same behavior is also observed in Japanese as pointed out in Otani and Whitman (1991) but see Hoji (1998) for the arguments to the contrary. Otani and Whitman (1991) analyzes those structures on a par with VP ellipsis structures of English in that V raising takes place and VP is deleted leaving behind a totally empty VP.

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[122] One may question the fact that we are dealing with the null object constructions in these cases. It may instead be the fact that these cases are VP deletion or VP copying cases. We propose that we are indeed dealing with null object constructions. Consider the following example.

(i) Fizik öğretmen-i$_i$ öğrenci-*sin*$_i$-i alkışla-dı, ama kimya öğretmen-i$_k$ [ec$_{i/k}$] azarla-dı.
physics teacher-CM student-3sg-ACC praise-PAST but chemistry teacher- CM scold-PAST
"The physics teacher praised his student but the chemistry teacher scolded (him)"

In the example above, the verb in the elided part of the second clause is different and both sloppy and strict identity readings for the null object in the second conjunct are available. This implies that the VP ellipsis case above is not a sort of VP copying or deletion process. Rather, we are dealing with a null object which is interpreted as a variable.

5.2.2.2.2. The Bound Variable Reading versus Referential Reading

Note that a number of languages have been observed to have null objects which exhibit referential readings in certain contexts (Huang 2000:84). This supports the view that null objects are *pro*s, not variables. In Turkish null objects receive both arbitrary and referential reading. Consider (30a-b) where the null object receives arbitrary reading when uttered out-of-blue.

(30) a. Bu adam [*no*] çileden çıkar-ır.
this man makes.angry-AOR
"This man makes (one) *(him) really angry."

b. Bu kitap [*no*] çok etkile-r.
this book much affect-AOR
"This book affects (one) *(him) much"

In (30a-b) the null object receives an arbitrary reading. Huang (2000:84-5, ff 34) notes that Italian and French null objects receive arbitrary reading, whereas null objects in Brazilian Portuguese receive referential reading. Turkish seems to have both readings in this respect. However, one might think that the arbitrary interpretation of the null object in (30a-b) comes with the generic reading resulting from the aorist marker on the verb. In (31) below, the aorist marker is replaced with the past tense marker which is the only definite tense marker in Turkish (Enç 1986a).

(31) Bu kitap [*no*] çok etkile-di.
this book much affect-PAST
"This book effected (one) / ??(him) much"

Note that the example in (31) is preferred to be interpreted as having an arbitrary reading instead of referential reading. This indicates that the null object does not license a referential reading. However, in question-answer pairs, null objects tend to receive referential reading. Consider (32).[123]

[123] I thank Meltem Kelepir for providing this example to me.

(32) Speaker A: - Avatar-ı seyret-ti-n mi?
Avatar-ACC see-PAST-2sg-Q
"Did you see Avatar?"

Speaker B: - Hayır, daha [*no*] seyret-me-di-m.
no, yet see-NEG-PAST-1sg
"No, I have not seen (it) yet."

In (32) the null object in the answer part of the example receives referential reading. The possibility of both bound variable reading and referential reading of the null object implies that the objet *pro* in Turkish seems to be like overt pronouns in English in that they can act both as referential pronouns and bound variables.

5.2.2.2.3. Quantificational Null Objects

Another piece of evidence for the claim that null objects are variable in nature comes with structures where the quantificational objects are dropped. Takahashi (2008:310) points out that it is possible to drop quantificational null objects in Japanese. The dropped quantificational null object can have both e-type (Evans 1980) and full fledged quantifier meaning. Consider the structure from Turkish given in (33a-b).

(33) a. Ali birçok gömleğ-i dene-di.
Ali most shirt-ACC try-PAST
"Ali tried most of the shirts."

b. Veli de [*no*] dene-di.
Veli too try-PAST
"Veli tried (it) too."

While in (33a) the quantificational object is present in the structure, in (33b) we have a null object. Note that this quantificational object can be interpreted as the same set of shirts that Ali tried in (33a). In addition to that reading, the null object in (33b) can also be interpreted as another set of shirts that *Veli* tried but not *Ali*. Therefore, the null object receives bound variable reading rather than a pronominal reading. If null objects

were *pro*s, we would have difficulty in explaining the quantificational null objects exemplified above.

5.2.2.2.4. Problems with Condition B

The variable nature of null objects is also supported by the problematic aspects of Condition B in explaining the grammaticality of some examples. Example (34) is from Azaryad (1990) where the null object in the embedded clause is co-indexed with the subject of the main clause. If the null object were a *pro*, the sentence would be grammatical since Condition B is not violated given that the antecedent of *pro* is not in the same minimal domain. However, the structure is not grammatical, a fact which suggests that Condition B has nothing to do with these structures.

(34) *Ahmet$_i$ [Veli-nin [*no*]$_i$ tanı-ma-dığ-ın]-ı söyle-di.
Ahmet Veli-GEN know-NEG-NOM-ACC tell-PAST
"Ahmet said that Veli does not know (him)."
Azaryad (1990) Example (19')

I argue that the null object in the embedded clause in (34) can not be considered a pronominal, given that the structure is ungrammatical. If it were a pronominal category, Condition B would predict the sentence to be grammatical, since a pronominal is bound by its antecedent in a different clause.

5.2.2.2.5. Condition C Violations

Another piece of evidence for the claim that null objects are variables comes with the Condition C effects. Recall that I have used the Condition C tests in Chapter 3 for the variable nature of resumptives, where a variable is bound by an element in A- position (i.e. strong crossover violation). I will use the same examples.

I adopt the test proposed by McCloskey (1990) for strong crossover violations of resumptives and argue that the ungrammaticality of (35a-b) is due to Condition C effects.

(35) a. *[[*salağ-a*$_i$ [öğretmen-in$_j$ *kendisi-ni*$_i$ sınıfta bırak-tığ-ı$_j$n]-ı
idiot-DAT teacher-GEN rp-ACC course-LOC flunk-REL-3sg-ACC
söyle-diğ-im] öğrenci$_i$
tell-DIK-1sg student
"The student$_i$ whom I informed the idiot$_i$ that the teacher flunked him$_i$

b. *[*Salağ-a*$_i$ [*no*]$_i$ yalnız bırak-ır-sa-m Ali-nin [ec]$_i$ döv-eceğ-in]-i
idiot-DAT if.I.leave.alone Ali-GEN beat-NOM-3sg-ACC
söyle-di-m
tell-PAST-1sg
"I told the idiot$_i$ that Ali will beat (him$_i$) if I leave (him$_i$) alone."

In (35a) an epithet *salak* (the idiot) binds a resumptive pronoun in the complement position of the most deeply embedded verb and in (35b) it binds a null object in the corresponding position. Both structures are ungrammatical. We take this ungrammaticality as a violation of Condition C and conclude that both the resumptive pronoun and the null object are syntactic variables.

Note that within the generative theory *pro* has been assumed to be the covert counterpart of the referential overt pronoun (Chomsky 1982). This implies that an overt pronoun and *pro* must be the same with respect to their interpretation. This is not the case in Turkish as we have noted in the previous sections. Recall that a null pronoun *pro* licensed by the overt morphological agreement on the predicate can receive a bound variable reading but not an overt pronoun in the same position. Huang (2000:88-9) notes that this contrast is observed in a number of languages including Chinese (Huang 1995), Japanese (Hoji 1983), Korean (Kang 1987), Tarifit (Ouhalla 1988), Catalan (Rigau 1988), Spanish (Montalbetti 1984), Italian and most West and South Slavonic languages including Czech and Serbo-Craotian (Lindseth and Franks 1996) (all cited in Huang 2000).

Turkish *pro* behaves in the same way with the above cited languages in that it is not the phonetically null counterpart of the overt pronouns. In many cases *pro* occurs where an overt pronoun can not. The subject position of the nominalized subordinate clauses is one such position.

5.3. Binding Chains

This section discusses the operator-variable chain that I proposed in Chapter 3 for the licensing of anaphors. Recall from Chapter 4 that Binding Theory conditions cause problems for the distribution of anaphoric expressions in Turkish. Within the Minimalist era, a number of analyses have been proposed for the binding conditions. These analyses argued that binding is not an interface phenomenon but takes place in narrow syntax. Following the proposals made by Reuland (2001, 2005), Kayne (2002), Hornstein (2006), I propose that binding takes place in narrow syntax.

Safir (2008) is an exception in this respect given that he does not consider binding as a narrow syntax phenomenon. Particularly, Safir (2008:346) proposes that narrow syntax treatments of coconstrual relations fail to explain unbounded dependencies, dependencies with non-local relations. This is an important observation made by Safir for our study in that the non-local or long distance relations in Turkish follow Safir's position. However, I propose that the possibility of long distance relations does not necessarily argue for the application of binding principles at the interface levels. If we consider binding relations as specifically A'- relations, we can capture the generalizations about the possibility of non-local binding relations. This is the crucial point where the analysis here differs from the other approaches to binding within Minimalism.

Hornstein's analysis of binding is problematic for Turkish given that it reduces binding to A- chains due to the fact that binding shows locality restrictions which are

typical of A- chains. However, as I have pointed out in Chapter 4, Turkish provides evidence for the long distance application of the binding relations. Thus, Hornstein's theory of binding as movement is not suited for our data. However, one point needs to be discussed. Hornstein's movement analysis of anaphor binding implies that the anaphor is a variable. I argue that this is what we have in Turkish *kendi*. It behaves as a variable in an operator-variable configuration. I argue that the possibility of long distance binding can be considered a clear indication of an A'- dependency whose locality is different from that of A- chains.

Consider now the derivational process I offer for reflexives. The system here follows from Boeckx (2003a) in that the reflexive is merged with its antecedent similar to resumptives as discussed in the example (40b) of Chapter 3. Consider (36).

(36) Binding chain
[OP_i …..[Clause …… [t_i $anaphor_i$]…….]]
Move

The chain in (36) is similar to the resumptive chain in Chapter 3. The only difference comes with the nature of Poss head position. In the resumptive chain this position is occupied by *'-sI'*. In the binding chain, on the other hand, Poss head position is created by N to Poss movement. As in the case of resumption, the Op moves to the C domain and the anaphor strands. The Op relates the stranded material to a lexical NP, which is the lexical antecedent of the anaphoric expression in the structure. Let us now see how the derivation proceeds. Consider (37) and (38).

(37) Ali *kendin*-i sev-iyor.
Ali himself-ACC love-PROG
"Ali loves himself."

(38) [$_{C\ Domain}$ OP_i [$_{T\ Domain}$ Ali_i ..... [t_i+kendin-i_i]]]

According to the structure in (38), the anaphor and the empty operator merge at the beginning of the derivation and they occur in the complement position of the verb. The Op moves to the C domain and the anaphor strands similar to the resumptive.

In this derivation, the lexical NP or the lexical antecedent of the anaphor is considered as being similar to the head noun in relative clauses. That is to say, the lexical antecedent does not play a role in anaphor licensing, i.e. no binding from an A- position. According to the proposal here, since the source of binding is not an A- position (where the lexical antecedent sits), anaphor binding is another form of A'- dependency. Once we accept that anaphor binding is not an A- chain, we can explain the non-local binding observed in Turkish. The Op moves to its own C domain or to the C domain of the matrix clause via cyclic movement. I argue that this has predictions for the island constraints and the possibility of implementing long distance operations in Turkish. That is to say, Turkish employs A'- chains instead of A- chains of the sort implemented in languages such as English. I will discuss this in Section 5.8.

Since the lexical antecedent does not play a role in anaphor licensing, the position of the antecedent is not important for the derivation. This predicts that lexical NPs in the positions other than the subject position can antecede the reflexive form. This is borne out given that a dative marked NP can antecede the reflexive in Turkish. The relevant example is repeated here as (39).

(39) Sanki *bana kendi-m-i* anlatıyorlardı.
I(dat) self-1sg.poss-acc
"[It was] as if they were talking to *me* about *myself*"
Göksel and Kerslake (2005:268) Example (34)

In (39) the dative marked lexical NP *bana* antecedes *kendi* without violating Condition A. In this system, this is not an unexpected situation given that OP moves to the C domain and binds the reflexive. Moreover, in the proposal offered here, long distance binding is

not a problematic case. The empty operator moves successive cyclically to the C domain of the matrix clause. It forms a chain with the lexical NP via co-indexation. This is given in (40-41) below.

(40) Ahmet$_i$ [pro$_m$ *kendin*-e$_i$ bir takım elbise al-ma-m]-ı ist-iyor.[124]
Ahmet himself-DAT a suit buy-NOM-1sg-ACC want-PROG
"Ahmet wants me to buy a suit for himself."

(41) [$_{C\ Domain1}$ OP$_i$ [$_{T\ Domain1}$ Ahmet$_i$ ...[$_{C\ Domain2}$ t$_i$ [$_{T\ Domain2}$ [t$_i$+kendin-e$_i$]]]

Successive cyclic movement

In (41) the empty operator merges with *kendi* and the OP moves to the higher position. First it moves to the intermediate C domain then to the C domain of the matrix clause. In its final position, it binds the reflexive and relates it to the lexical antecedent *Ali*. The long distance movement is not possible in A- chains given that the intermediate landing site for the lexical antecedent is filled by a *pro* which is the subject of the embedded clause in (41). In other words, intermediate subject position would be the final position of the moving constituent in A- chain. Since A'- movement does not consider subject positions as potential landing sites, no Minimal Link Condition violations arises.[125]

The long distance binding option marks the difference between the analysis provided here and a similar movement based approach to Condition A provided by Horstein (2006). According to Hornstein (2006), the lexical antecedent and the anaphor merge at the beginning and the lexical antecedent moves to the subject position which is an A- position. However, this limits the movement of the antecedent to the first

[124] Recall that there is a dialect split for the (un)grammaticality of the example in (39). For Dialect A, which finds this example ungrammatical, I point out that binding operator moves only locally akin to local A- movement.

[125] In (41) the reason why the binding operator moves cyclically is the possibility of ambiguous sentences where the reflexive is bound by the embedded subject and the matrix subject. I assume "at a distance" property of Move in Minimalist Program and following Boeckx (2003a, 2007, 2008), I assume intermediate movement sites do not have to involve feature checking. Thus, cyclic movement is not for feature checking purposes.

available A- position, and not further (Minimal Link Condition, Chomsky 1995). Hornstein's approach works for languages such as English where pronouns and anaphors are in complementary distribution, and there is no long distance binding. However, in A'- movement analysis the empty operator can move successive cyclically without violating conditions on movement.

Our analysis of binding as licensing via a type of resumptive chain predicts that binding of an anaphor is possible across a syntactic island in the sense of Ross (1967), given that resumption involves island insensitivity. As the following example (42) indicates, this prediction is borne out.

(42) Ali$_i$ [ayna-da *kendin*-i$_i$ gör-ünce] şaşır-dı.
Ali mirror-LOC himself-ACC see-when surprise-PAST
"Ali$_i$ was surprised when he$_i$ saw himself$_i$ in the mirror."

In (42) the anaphoric expression *kendi* occurs inside an adjunct island and is bound by the subject of the matrix clause *Ali*. This shows that binding has another characteristic of resumption, island insensitivity, which is observed in A'- dependencies with resumptive pronouns (see Section 3.4.5 for a discussion). Our analysis of binding can easily account for this fact given that the OP and *kendi* merge in the beginning of the derivation and *kendi* strands after the movement of the empty OP.[126]

Analyzing anaphors via operator-variable chains akin to resumptive chains and the fact that resumptive and reflexive are interpreted as variables raise the question why we have two distinct lexical items for two grammatically separate but structurally similar cases: resumption and anaphor binding. In other words, do *kendi* and *kendisi* occur in each other's environments? Recall that *kendisi* can occur in binding chains, but *kendi* cannot occur in resumptive chains. This is exemplified in (43a-b) below.

[126] Structures where the embedded Spec-CP is overtly filled are questionable at this point. I leave the issue for further investigation.

(43) a. Adam$_i$ *kendi-sin*-i$_i$ sev-iyor.
man himself-ACC love-PROG
"The man loves himself."

b. *[*Kendin*-i$_i$ sev-diğ-im] adam
himself-ACC love-DIK-1sg man
"The man whom I love (him)"

The grammaticality of (43a) and the ungrammaticality of (43b) can be explained if we assume that *kendi-si* is a composite of anaphor *kendi* and *'-sI'* [kendi+sI]. Recall from Chapter 3 that *'-sI'* is the minimal copy of its antecedent. Recall also that relative clauses are modifier+head structures where the relative clause is adjoined to the head noun. The distance between the operator position and the head noun is different from the one in binding structures. The distance in the former requires a minimal copy of the antecedent present on the resumptive+empty operator combination in the beginning of the derivation. No such requirement is present for binding chains, hence no need for *'-sI'*. Consider the structures in (44a-b).

(44) a. [$_{NP}$ [$_{NP}$ [$_{Rel.\ Cl.}$ [Op+kendisi]]] [lexical antecedent]]

b. [$_{CP}$ [$_{TP}$ … [lexical antecedent] … [Op+kendi]]]

Note that the dependency relation between the head noun and the resumptive complex in (44a) is more distant than the one in reflexive complex in (44b). Moreover, the clause containing the reflexive complex occurs in a complementation relation with the syntactic unit involving the antecedent. However, this is not the case for resumptive complex.

A problem remains to be solved about the proposal I made. I proposed that reflexives are licensed via an A'- chain with an empty operator. However, there are sentences which involve a reflexive in the complement position and a quantifier subject in the subject position. This is exemplified in (45).

(45) [OP$_i$ Herkes$_i$ [*kendin*-e$_i$ elma al-ma-m]-ı iste-di].
. everyone himself-DAT apple buy-NOM-1sg-ACC want-PAST
"Everyone wanted me to buy an apple for him(self)."

Note that the universal quantifier (universal operator) *herkes* (everyone) binds the bound-variable *kendi* (himself) in the structure. The structure also involves reflexive binding in that the empty operator binds the reflexive. The problem is the two instances of operator-variable chains on a single element *kendi*. How are these two distinct operator-variable chains formed?[127]

According to Lasnik and Stowel (1991), A'- chains are of two types: (i) quantificational chains which include wh- questions and quantifier raising, and (ii) anaphoric chains which include null operator structures and topicalization. Note that weak crossover effects follow from this distinction in that while the former chain shows weak crossover effects due to the quantificational nature of the operator, the latter does not due to the non-quantificational nature of the operator. This implies that while the former chain may end in a variable bound by a quantificational operator, the latter chain ends only in pronouns or epithets. This prediction is borne out given that languages

[127] I thank Meltem Kelepir (p.c) for bringing this issue to my attention. Actually, the problem does not solely depend on the proposal I made in the text. Consider (i) below which is an example of subject relativization.

(i) ? OP$_i$ OP$_i$ [*Kendisi*$_i$ dün geç saat-e kadar hasta muayene ed-en] [her doktor]$_i$
rp yesterday late hour-DAT until patient examine-REL every doctor
"Every doctor who *(he) examined patients until late hours yesterday."

In (i) the head noun is a quantificational expression which binds the resumptive inside the relative clause. It seems to be the case that both quantificational operator and relative operator bind the same material (resumptive) inside the clause simultaneously. What is also interesting is that long distance quantifier raising (QR) is available in (i) above, which shows that relative clauses are not islands for QR. Note that (i) above is not accepted as a grammatical sentence by all native speakers. (ii) below, where the quantificational expression is in the subject position and binds the resumptive in the complement position of the relative clause is more readily acceptable.

(ii) Her öğrenci-nin *kendisin*-i davet et-tiğ-i [adam] baba-sı-ydı.
every student-GEN rp-ACC invite-DIK-3sg man father-3sg-PAST
"The man every student invited (him) was his father."

In (ii) the quantificational expression must bind the variable *kendisin-i* which at the same time has to be bound by the relative operator. This structure indicates that binding from two sources is available in relative clauses. Note that (ii) is interpreted as ambiguous between the multiple individual and single individual readings of the head noun *adam* (man).

such as English (Lasnik and Stowel 1991), Italian (Rizzi 1997) and Greek (Alexopoulou 2006) do not allow a pronoun or a pronominal clitic which is bound by a quantificational expression.[128] This means that quantificational operators in these languages bind only a null variable, but not overt expressions such as pronouns.

Related to the discussion here, I point out that Lasnik and Stowel's (1991) system excludes pronouns and epithets from restrictive relative clauses given that restrictive relatives are argued to involve a quantificational operator in their analysis. Alexopoulou (2006) argues that the absence of resumptives in restrictive relatives of Greek (except relative clauses introduced by complementizer *pu*) follows from this typology. However, crosslinguistic data reveal that this is not always true. Resumptive pronouns are allowed in restrictive relatives in many languages (see footnotes 127, 128, 129 and also observed in Alexopoulou 2006:66). Also, epithet phrases can occur in Lebanese Arabic relative clauses in the positions where the resumptives appear (Aoun and Choueiri 2000:12). Moreover, resumptives in Turkish and Lebanese Arabic (Aoun and Choueiri 2000) are compatible with head nouns which are quantificational expressions and receive bound variable reading.

I propose that the operator variable chains formed with *kendi* in (45) are subject to a LF chain reduction for proper interpretation. Narrow syntax maps this structure to the interface level as involving two dependencies for the single item. The fact that the item is interpreted as a bound variable supports the view that we have only one licensing needed.[129]

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[128] A relevant example is given in (i):

(i) **kanena* den *ton* ida
nobody-ACC not him saw-1S
"Nobody, I saw him"

Alexopoulou (2006:60) Example (3a)

[129] It is also possible to hold that the resumptive is bound simultaneously by the relative operator in the C domain and the universal quantifier in the T domain. See Sharvit (1999) for a discussion. This implies that the operators induce selective binding where different types of operators bind different types of variables.

The structure has also implications on the question where binding relations occur. Recall that I have pointed out in Chapter 3 that recent literature on Minimalist program supports the view that binding applies at narrow syntax rather than LF, due to the fact that binding has characteristics that are shown by narrow syntactic operations. However, as the example (45) reveals, binding has interactions with the interpretive phenomenon such as quantifier interpretation as already pointed out by Fox and Nissenbaum (2004) and Sportiche (2006). Note that scope interpretation is assumed to hold at LF. Hicks (2008) proposes that bound variables must be in the scope of their binder at LF and an anaphor must be bound during narrow syntax by an antecedent which is sufficiently local to it. Thus, a separation for the two licensing operations is offered on the ground that reflexive binding is a distinct grammatical operation. Given that the two operations have similar tool application in our system, we have to admit that the operator-variable chain licenses the reflexive in narrow syntax and maps the derivation into the interface level, LF. LF converts this chain into a quantifier-bound variable chain without violating Inclusiveness Condition of Chomsky (1995) given that no interpretive difference is observed, i.e. *kendi* is interpreted as bound variable in both cases.

5.4. Ellipsis Chains

This section discusses the licensing of null object constructions. I propose that the licensing of null object constructions follows from the A'- chains offered in Chapter 3 as well.

The questions raised for the licensing of null objects have focused on different syntactic and semantic licensing procedures for these null arguments and a number of proposals have been made in the literature. Although some analyses (Huang 1984, Otani

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The opposite case is called 'unselective binding' which allows the operator to bind all variables in its scope indiscriminately.

and Whiteman 1991, Hoji 1998) are solely based on syntactic facts observed in these structures, some analyses (Rizzi 1986) argue that purely syntactic accounts fail to predict the full range of properties of these null arguments, and some pragmatic and discourse based factors are also at work for the interpretation of these arguments.

The most discussed proposal for the licensing of null objects in language is "VP Ellipsis analysis" introduced by Huang (1984). The proponents of this analysis (Otani and Whiteman 1991, Takahashi 2008 for Japanese, Pan 2005 for Chinese) propose that null objects can be licensed on a par with VP Ellipsis structures and the variable nature of null objects clearly follows from this. The availability of sloppy identity reading alongside the strict identity one and the distributive reading alongside the collective one are two pieces of evidence which are discussed in favor of this proposal.

However, not all studies adopt VP Ellipsis analysis due to some cross-linguistic problems. Hoji (1998) for example, notes for Japanese that the absence of locality restrictions in sloppy identity reading and the absence of c-command requirement on variable binding are two important problems for VP analysis of the null objects in the language. Instead of variable licensing under VP Ellipsis, Rizzi (1986) proposes that a pronominal element, *pro* is formally licensed through case assignment by a head and recovered through binding from a licensing head. *pro* in the subject position can function as a definite pronoun through binding from Agr specifications of the licensing Infl. Rizzi (1986) extends this into object *pro* in that object *pro* is bound by the clitic on the licensing verb. Öztürk (2006) proposes that both null subjects and objects in Turkish are pronominal in nature and null objects are *pro*s which are licensed by thematic interpretation under the event structure. What leads the arguments to drop is the fact that arguments do not have to leave their theta positions due to the fact that there is no case driven Agree in Turkish.

5.4.1. Ellipsis Chains and Null Object Licensing

I propose that null objects are licensed via a type of resumptive chain. However, this time there is a representational chain instead of a derivational one. That is to say, no movement is involved in licensing of null object constructions. The empty Topic operator is merged in the C domain and binds the null object which is actually a null resumptive. The reason behind the absence of movement might be that sloppy identity reading in null objects does not require c-command. This implies that the null object is not in the matching domain of the C. In other words, the empty Op cannot probe a goal, i.e. null object, which is not in its c-command domain. Hence, the absence of movement. This is shown in (46) and (47).

(46) Ali_i kendin-i_i teselli et-ti, Veli_k de $[no]_{i/k}$ teselli et-ti.
Ali himself-ACC console-PAST Veli also console-PAST
"Ali_i consoled himself_i and Veli did so."

(47) Ellipsis chain
[OP_i …..[Clause …… *no*=null resumptive_i …….]]

In (47) there is no movement and the empty operator which is merged in the C domain licenses the empty category inside the clause. The empty category is actually a null resumptive. Recall that null objects are often interpreted as variables in Turkish. The variable nature of null objects is supported by the fact that null objects can be pronounced as *kendisi*, the form which can occur in A'- dominated positions. The Operator licenses the null resumptive and the null resumptive is interpreted with its antecedent. The null resumptive is in the structure from the very beginning of the derivation.

Note that the chain I proposed for the null objects explains the facts observed in null object constructions. First of all, null object constructions in Turkish show similar effects with resumptives in island contexts. Consider (48a-b) below where the null

objects which are interpreted as equal to the matrix objects are within an adjunct and a wh- island respectively, and both structures are grammatical.

(48) a. Ahmet [[*no*]$_i$ öldür-meden iki saat önce] *Ali*-yi$_i$ gör-müş-tü.
Ahmet kill-before two.hour.before Ali-ACC see-PERF-PAST
"Ahmet saw Ali$_i$ two hours before killing (him$_i$)."

b. [[Kim-in [*no*]$_i$ döv-düğ-ün]-ü gör-ünce] Ahmet-i$_i$ koru-mağ-a
whose beat-NOM-3sg-ACC see-when Ahmet- ACC protect-INF-DAT
başla-dı-n?
start-PAST-2sg
"?Whose beating (him$_i$) did you see and started to protect Ahmet$_i$?"

Operator-variable constructions are considered to exhibit island effects, since they involve binding of a variable by an operator in A'- position as noted in Aoun and Li (2003). Recall that resumptives in Turkish do not respect island constraints like the ones in many languages such as Hebrew. The same property of null objects can be handled in a similar way I offered in Chapter 3 for resumptives.[130] The island phenomenon in Turkish works in a different way.

Note that the analysis where the Spec position of the TopP has an empty Operator in order to license the variables inside the clause needs clarification. The presence of the Operator is not a necessary condition for TopPs in that TopPs can be generated without an empty Op. If personal pronouns, those which resist variable interpretation, occur as topics in the sentence, the best position for these pronouns is TopPs. Thus, apart from the topic operator-variable chain whose head position is Spec-

[130] Languages vary with respect to the availability of cases where an embedded null object is co-indexed with the overt matrix object. While Chinese null objects cannot be co-indexed with matrix objects, Imbabura Quechua (Cole 1987) null objects do so. What is important about this distinction is that a strong crossover effect is expected in the presence of co-indexation between the lower object and the higher one if the null objects are of variable category (matrix object c-commands the variable=null object=trace of its antecedent, possibly a topic operator). Accordingly, while Chinese null objects are variables, those in Imbabura Quechua are pronominal elements. Tuvaluan is another language where the null objects can be co-indexed with matrix arguments as noted in Besnier (2000). Note that Turkish null objects show condition C effects (examples in (35a-b) in the text). However, the grammaticality of the examples in (48a-b) needs an explanation. I leave the issue for future research and simply assume that the reason why movement is not involved in null object licensing follow from the contradictory facts observed in null objects with respect to strong crossover phenomenon.

TopP, there is a projection where the Spec position of the TopP hosts topicalized personal pronouns whose antecedents are selected from the discourse.[131] See Akan (2009) for an analysis of these structures.

5.5. The Function of '*-sI*' and '*-lArI*' in Operator-Variable Chains

This section argues that 3rd person possessive markers have a crucial role in the clause structure and the formation of the variable chains in Turkish. In Chapter 3, I proposed that *'-sI'* is the minimal copy of its antecedent and it attaches to a nominal base in order to participate in the variable licensing in syntax. Moreover, they attach to a nominal root and act as a bound variable, i.e. under the restriction of a quantificational expression, and they act as resumptive pronoun when they attach to a nominal root in the relativization site.

5.5.1. '*-sI*' and '*-lArI*' in Subject Positions

Recall that *kendi* can not appear in the subject position of the embedded clauses when they are co-indexed with the matrix subject. However, the use of a complex pronominal expression *kendisi* is available in these cases. The relevant examples are given in (49a-b) below.

(49) a. Ali_i [*o*-$nun_{*i/k}$ kitab-ı oku-yabil-eceğ-in]-i düşün-üyor.
Ali he-GEN book-ACC read-ABIL-NOM-3sg-ACC think-PROG
"Ali thinks that he can read the book"

b. Ali_i [*kendi-si*-$nin_{i/k}$ kitab-ı oku-yabil-eceğ-in]-i düşün-üyor.
Ali himself-GEN book-ACC read-ABIL-NOM-3sg-ACC think-PROG
"Ali thinks that he can read the book"

In (49a) the personal pronoun can not form a dependency with the matrix subject position given that the antecedent is too close to it, hence the ungrammaticality of the i

[131] I thank Balkız Öztürk for pointing this out to me.

reading. This follows from our claim that personal pronouns cannot occur in A'-environments, i.e. positions licensed by an operator in A'-position (Topic Op in this case). However, as the example in (49b) indicates, the same dependency is well-formed with a complex pronominal expression *kendi-si*.[132]

We argue that this follows from our claim that *'-sI'* is the minimal copy of its antecedent present on the form *kendi*. The presence of *'-sI'* creates a prolific domain for the dependency between the pronominal and its antecedent in A'- environments.[133]

5.5.2. '*-sI*' and '*-lArI*' as Variables

Consider the examples in (50a-b) where the quantificational expression binds the possessive markers on the nominal root.

(50) a. Herkes$_i$ anne-*sin*-i$_{i\,/\,k}$ sev-er
everyone mother-3sg-ACC love-AOR
"Everyone loves his mother"

b. Bütün çocuk-lar$_i$ oyuncak-*larn*$_i$-ı sev-er.
all kid-pl toy-3pl-ACC love-AOR
"All children love their toys"

In (50a-b) a quantificational expression binds the pronominal in the complement position, *'-sI'* and *'-lArI'* respectively. They are ambiguous in that they can be interpreted

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[132] Note that being able to occur in an A'- dependency is a property of the third person singular possessive marker. First and second person markers do not have the same effect when they attach to the nominal base *kendi*.

[133] One such environment might be a left dislocation example where the left dislocated material contains a pronominal expression which is bound by a quantificational expression in the matrix clause. Consider (i).

(i) [Annes-sin$_i$]-i herkes$_i$ sev-er.
mother-3sg-ACC everyone love-AOR
"[His mother$_i$], everyone$_i$ likes t$_i$"

Note that *'-sI'* in the left dislocated material can be interpreted as a bound variable as well as a deictic pronominal referring to a referential NP in discourse. Grohmann (2003:274) notes that similar examples in German contain a resumptive pronoun which is a copy spell out of its antecedent. Comparing *'-sI'* with a personal pronoun occurring in the same environment which has only deictic interpretation, we assume that this is another support for the claim that *'-sI'* is the minimal copy of its antecedent. It provides a link to its antecedent via an A'- chain.

as both a bound variable and a deictic pronoun. In the former reading, there is no particular mother or toy which *'-sI'* and *'-lArI'* refer to. In the latter, on the other hand, there is a particular mother which everyone loves and toys belonging to a different person.

Note that the bound variable interpretation of *'-sI'* is received irrespective of the agreement marker on the quantificational expression. Consider (51a-b) where the quantificational subject is inflected with 1st person plural possessive marker.

(51) a. Her bir-imiz ödev-*in*-i yap-tı.
each.of.us homework-3sg-ACC do-PAST
"Each of us did his homework"

b. Her bir-imiz kitab-*ımız*-ı oku-du-k.
each.of.us book-1pl-ACC read-PAST-1pl
"Each of us read our books"

The subject of the sentences in (51a-b) can be interpreted as 1st person plural and 3rd person singular. What (51a) particularly shows is that *'–sI'* receives a bound variable reading irrespective of the agreement marker on the quantifier. This is also the case in Tongan as Hendrick (2005:105) notes. Moreover, in the bound variable reading of *'-sI'* a quantificational antecedent can bind more than one occurrence of the variable. This is shown in (52).

(52) Kaza-dan sonra herkes$_i$ arkadaş-*ın*$_{i/k}$-a [iyi ol-up ol-ma-dığ-*ın*$_{i/k}$]-ı
accident-ABL after everyone friend-3sg-DAT well be-IP be-NEG-NOM-3sg-ACC
sor-du.
ask-PAST
"After the accident, everyone$_i$ asked his$_{i/k}$ friend whether he$_i$ is ok or not."

In (52) there are two instances of *'-sI'*, first on the second complement of the matrix verb, and the second on the embedded verb. They can both be interpreted with the quantificational expression *herkes* (everyone).

5.5.3. *'-sI'* and *'-lArI'* as Resumptive Pronouns

Recall from Chapter 3 that apart from attaching to *kendi*, *'-sI'* and *'-lArI'* act as a resumptive pronoun in relative clauses when they attach to a nominal root. This is another support for the claim that they are minimal copies of their antecedents. First let us consider the possessor extraction cases. Consider (53a-b).

(53) a. Kalem-in_i-i al-dığ-ım öğrenci$_i$
pencil-3sg-ACC borrow-DIK-1sg student
"The student whose pencil I took"

b. *O-nun kalem-in_i-i al-dığ-ım öğrenci$_i$
he-GEN pencil-3sg-ACC borrow-DIK-1sg student
"The student whose pencil I took"

In (53b) the personal pronoun occurs in a position where the relative clause operator is assumed to be extracted, i.e. familiar possessive extraction or left-branch extraction cases. (53b) is ungrammatical since the personal pronoun is sensitive to the A'- chains in that it cannot be licensed in that position. This follows from the fact that resumption indeed necessitates an operator-variable case. Accordingly, an A'- sensitive pronominal expression cannot occur in the position where the Operator is extracted.

Second, recall that bare postpositions in Turkish do not allow their complements to be relativized. However, when used with a nominal expression inflected by *'-sI'* the structure turns out to be grammatical (54c).

(54) a. * *ec*$_i$ göre hatalı ol-duğ-um adam$_i$
according wrong be-DIK-1sg man
Intenden reading: "The man according to whom I am wrong"

b. *Kendi-sin*$_i$-e göre hatalı ol-duğ-um adam$_i$
himself-DAT according wrong be-DIK-1sg man
"The man according to whom I am wrong"

c. Düşünce-sin_i-e göre hatalı ol-duğ-um adam$_i$
opinion-3sg-DAT according wrong be-DIK-1sg man
"The man in whose opinion I am wrong"

d. *Düşünce-ye göre hatalı ol-duğ-um adam$_i$
opinion-DAT according wrong be-DIK-1sg man
Intenden reading: "The man in whose opinion I am wrong"

In (54a) the bare postposition *göre* does not allow relativization in that its complement position cannot be filled by a gap, i.e it has to be filled by a resumptive pronoun as the grammaticality of (54b) shows. However, (54c) and (54d) show that what we need is not a pronominal expression, but the presence of *'-sI'* attached to a nominal host and saving the otherwise ungrammatical structure in (54d). (54c) exemplifies the resumptive function *'-sI'* as a minimal copy of its antecedent *adam* (man).

Thirdly, *'-sI'* makes some nominal roots a postposition. Hence, different from (54a-d), these postpositions have an NP structure. What is crucial at this point is that these postpositional heads allow gaps under relativization unlike the one in (54a-d). Consider (55).

(55) [ec$_i$ Hakk-*ın*$_i$-da] konuş-tuğ-um adam$_i$
about-3sg-DAT talk-DIK-1sg man
"The man about whom I talked"

In (55) the postposition *hakkında* (about) has an NP structure due to the presence of *'-sI'* which, I assume, acts a resumptive pronoun. Note that in the presence of *'-sI'*, the relativization of the complement of the postposition becomes available. Hence, there is no need to have a pronominal expression acting as a resumptive for a well-formed A'-chain.

Last, our claim that *'-sI'* acts as a minimal copy of its antecedent finds evidence from other cases as well. We note that *'-sI'* affects the parts of speech system of Turkish by turning a bare adverb, all ending in [I], into a noun in order to be used as a subject. This is exemplified in (56a-b) below.

(56) a. *İçeri / dışarı / geri / ileri bugün karanlık.
inside / outside / back / forword today dark
"The inside / outside / back / forward is dark today"

b. İçeri-*si* / dışarı- *sı* / geri-*si* / ileri-*si* bugün karanlık.
inside-3sg / outside-3sg / back-3sg / forword-3sg today dark
"The inside / outside / back / forward is dark today"

Note that the forms in (56a) are ungrammatical in the absence of *'-sI'*. In (56b) forms, on the other hand, *'-sI'* stands for the minimal copy of a discourse or a pragmatic antecedent (the outside of the room, the back of the tunnel etc.) and makes the structure grammatical.

5.6. Personal Pronouns and Condition B Revisited

In Chapter 4, I have pointed out that the use of pronouns in Turkish is more restricted than that of languages such as English. For instance, they cannot occur in the subject position of the embedded clauses if they are co-indexed with the matrix subject. I proposed that this follows from a general ban on pronouns in Turkish. Pronouns are sanctioned from positions which I call A'- dominated. That is to say, if there is an A'-operator in the C domain of the clause, a Topic operator in Spec-TopP, pronouns cannot occur in the subject position as co-indexed with the matrix subject due to the fact that this position is reserved for a bound variable . The pronouns in Turkish are necessarily deictic expressions (Öztürk 1999, 2001) which prefer taking their antecedents from discourse rather than forming anaphoric dependencies with the clause internal antecedent. That is why they are not used as resumptives and other A'-dominated materials. Note that personal pronouns can be topic and focus in sentences (Erguvanlı-Taylan 1986 and Enç 1986b). In this case, TopP is the position to host these materials, but not via operator-variable chains which are for bound variables.

It is also a fact that Turkish is an argument drop language in which arguments with topic functions are dropped. The dropped arguments, I claim, are variables in nature and look for an operator-variable chain for licensing as I pointed out in previous sections. The only way to occur in a variable position in Turkish is to have a minimal copy of the antecedent, which is *'-sI'*. Personal pronouns do not carry this morpheme and as a consequence are outlawed. Consider (57) where pronouns are banned from a position which is in the domain of an A'-operator.

(57) *?Kim-e$_i$ [*on*-un$_i$ işe al-ın-dığ-ın]-ı söyle-di-n?
who-DAT he-GEN employ-PASS-NOM-1sg-ACC tell-PAST-2sg
"Who$_i$ did you tell that he$_i$ is accepted for the job?"

In (57) the pronominal item *o* (he/she/it) cannot be bound by a wh-element *kim* (who) as the ungrammaticality of the example indicates. Note that when the pronoun is replaced by *kendisi*, the structure turns out to be grammatical. This is due to the fact that pronouns are not inflected with *'-sI'*, hence cannot occur in A'-environments.

If the distribution of pronouns follows the general ban that I offered, but not the Condition B of Binding Theory, how can we explain the ungrammaticality of examples where the pronoun does not occur in a position dominated by an A'-operator? Consider (58).

(58) *Ali$_i$ *on*-u$_i$ sev-iyor.
Ali he-ACC love-PROG
"*Ali$_i$ loves him$_i$"

In (58) the pronoun is co-indexed with the subject in the same clause and the structure is ungrammatical. This follows from Condition B which requires pronouns to be free in their local domain. Observe also that pronouns can be bound by a local antecedent too. (24) of Chapter 4 is repeated here as (59).

(59) Sanki *ban*-a$_i$ *ben*-i$_i$ anlat-ıyor-lar-dı.
I-DAT I-ACC talk-PROG-3pl-PAST
"It was as if they were talking to me about myself"

In (59) the pronoun *ben-i* (me) is bound locally and no ungrammaticality arises. Considering these facts, I propose that our claim holds here too, but with some revision. The grammaticality contrast suggests that what is important for pronoun binding is the position of the binder. That is to say, while binding from a second complement position is not problematic for pronouns, binding from the subject position is. I point out that subject position is the closest position to the C domain in the clause structure and this affects pronoun binding. Assuming that subject position in the T domain is open for the C domain from where the subject is licensed, the sensitivity of pronouns for binding from the subject position can be explained. However, the issue needs more research.[134]

5.7. PRO Chains

This section discusses the possibility of considering control phenomenon in terms of operator-variable chains that I have been discussing in this chapter. Recall that I have pointed out in section 5.2 that PRO is interpreted as a bound variable and the subject position of adjunct clauses is filled not by PRO, but an empty category which receives variable interpretation. Here, I will discuss the licensing of this empty category. First, I will give the problematic aspects of PRO analysis and other approaches to control

[134] Moreover, contrary to what I claim here, there are examples such as (i) below where the personal pronoun in the complement position seems to be bound by the personal pronoun in the subject position. I thank Balkız Öztürk for bringing these examples to my attention.

(i) Ben ben-i sev-er-im.
I I-ACC love-AOR-1sg
"*I love me."

I leave the issue for further investigations.

phenomenon within Minimalism. Then, I will offer a licensing mechanism for the empty category in this position.

5.7.1. The Elimination of Control Module

The initial point I make follows from Hornstein (1999) who argues for the elimination of control module from the grammar proper. If control phenomenon is reducible to other grammatical operations (movement for Hornstein 1999, Boeckx and Hornstein 2004, 2006, Agree for Landau 2004), why do we have to have a distinct grammar module for the interpretation of a single expression?

5.7.1.1. Lexical NPs can Occur in PRO Position

Note that a lexical NP in the subject position of an infinitival clause and an adjunct clause is available. Note also that the embedded verbs in both types of clauses are not inflected with agreement markers, i.e. no *pro* is licensed in the subject position unlike other nominalized subordinate clauses. Consider the example in (60) which is taken from Szabolcsi (2007) and slightly modified for present purposes.

(60) Iyi rol-ler-i sadece *Ali* / *O* / *kendisi* al-mağ-a başla-dı.
good role-pl-ACC only Ali / he / himself take-INF-DAT start-PAST
"Only Ali started to take good roles"
Szabolcsi (2007:29) Example (142)

Szabolcsi (2007) points out that the low reading is possible if the nominative subject carrying main stress is modified by *only* and occurs in preverbal position following the direct object. *Ali* occurs in the embedded subject position where there is no inflection which licenses the subject, i.e. checks the case feature of the NP. When we apply the contradiction test for the subject interpretation of the sentence, we find this observation

correct. Consider the following contradictory sentences in (61a-b) to the structure in (60).

(61) a. Hayır, geçenlerde Mehmet de al-mış-tı.
no, recently Mehmet too take-PERF-PAST
"No, Mehmet too has taken good roles recently."

b *Hayır, Mehmet de başla-dı.
no, Mehmet too start-PAST
"No, Mehmet too, started (to take good roles)."

The adverbial expression *sadece* (only) in the example (60) takes the infinitival clause into its scope. The subject *Ali* is interpreted as the argument of the embedded verb *al-* (to take). This leaves us with three options regarding the licensing of the subject in control cases. First, the subject position is filled by PRO which alternates with a lexical NP. As I will discuss in the following sections, this option fails given that PRO and lexical NPs must be in complementary distribution. Second, the subject position of these clauses involves *pro* which alternates with a lexical NP. This option fails too because *pro* needs to be recovered through φ-feature agreement which is absent in these clauses. Third, the subject position of these clauses involves an empty category which can alternate with a lexical NP. I take this option and argue that it correctly predicts the syntactic properties of these clauses. This option implies that there is no PRO in the subject position of the embedded clause, and the lexical NP *Ali* fills that position even if there is no agreement marker on the verb which licenses the subject. Accordingly, there might be no control in Turkish, the empty subject is licensed via a chain which ends up in an A'- position. In the following, I will discuss how this option works.

Szabolcsi (2007) uses further evidence in order to show that subject position of the embedded clause can be filled by an overt category. Examples below are from Szabolcsi (2007:30) who in turn cites Murat Kural (p.c).

(62) a. Iyi rol-ler-i hiç kimse al-mağ-a başla-ma-dı.
good role-pl-ACC nobody take-INF-DAT begin-NEG-PAST
High reading: `Nobody began to get good roles (nobody's situation improved)'

b. Iyi rol-ler-i hiç kimse al-ma-mağ-a başla-dı.
good role-pl-ACC nobody take-NEG-INF-DAT begin-PAST
Low reading: `It began to be the case that nobody was getting good roles (if some people used to get good roles, they stopped getting ones)'
Szabolcsi (2007:30) Examples (144-145) respectively

In (62b) negation is on the embedded verb supporting the low reading. This can be considered as the fact that subject position of the infinitival clause can be filled by overt categories. Moreover, consider (63a-b) from Szabolcsi (2007) where the pronominal subjects are doubled.

(63) a. *Sadece o iyi rolleri sadece o almak istemedi.

b. Sadece o iyi rolleri sadece kendisi almak istemedi.
Low reading: `Only he doesn't want to be the only one who gets the good roles"
Szabolcsi (2007:31) Examples (155) and (156) respectively

The grammaticality contrast in (63a-b) indicates that *kendisi* is allowed to occur in the subject position of the infinitival clause and interpreted with the low reading. However, this is not possible with a personal pronoun. This supports our view that the subject position of these clauses is a variable position which can be pronounced as *kendisi* but not as personal pronouns.

Note also that the subject position of the adjunct clauses can be filled by overt NPs, such as proper nouns, personal pronoun or *kendisi*. This is given in (64a-c) respectively. Note that forms other than *kendisi* can occur in this position if they are not co-indexed with the matrix subject. In that case, only *kendisi* can occur in this position.

(64) a. Ben [*Ali* gid-ince] gel-di-m.
I Ali go-when come-PAST-1sg
"I came when Ali left."

b. Ben [*sen* gid-ince] gel-di-m.
I you go-when come-PAST-1sg
"I came when you left."

c. Ben [*kendi-si* gid-ince] gel-di-m.
I himself go-when come-PAST-1sg
"I came when he left."

(64a-c) indicate that the subject position of the adjunct clause can be filled by overt R-expressions (64a) and pronominals (64b-c). This implies that PRO and overt NPs are not actually in complementary distribution as argued in Chomsky (1981, 1982). This has also implications on the recent approaches to control structures. For instance, Landau (2000) proposes that the control phenomenon is the manifestation of an abstract anaphoric Agr which is projected in the clausal architecture of these clauses. Given that anaphoric Agr and finite clause Agr are different in that the former cannot license nominative case on the lexical DPs (Bianchi 2003:12), the fact that the overt subjects in the adjunct clauses in (64a-c) are in nominative case is problematic for these approaches. Moreover, there are languages such as Icelandic where PRO has nominative case although it is not phonologically spelled out (Sigurðsson 1991 cited in Bianchi 2003).

5.7.1.2. Conceptual Problems of PRO

The problems related to PRO with respect to locality is conceptual in that it is impossible to define a local domain for PRO since it is ungoverned. Here, the issue of locality is restricted to the presence of two c-commanding antecedents. Minimal Distance Principle (MDP) stated in (65) is proposed to account for the locality of the dependency between PRO and its antecedent in GB era.

(65) *Minimal Distance Principle*[135] (Larson 1991)
An infinitive complement of a predicate P selects as its controller the minimal c-commanding noun phrase in the functional complex of P.

Before discussing MDP and locality problems of Control Theory, let us see how PRO is considered in GB. Consider the example in (66).

(66) Ali_i [PRO_i Ankara-ya git-mek] istiyor.
Ali Ankara-DAT go-INF want-PROG
"Ali wants to go to Ankara."

(66) involves a non-finite clause whose subject position (Spec-TP) is empty, a problem for Theta Theory and EPP. GB provides PRO which receives the θ-role of the verb and satisfies EPP by functioning as the subject. The dependency between PRO and its antecedent must obey locality and c-command requirements in that PRO must be co-indexed with the closest NP that c-commands it. (66) above satisfies both of these conditions, the antecedent *Ali* in Spec-TP of matrix clause c-commands PRO and there is no intervening NP, a possible candidate for being an antecedent of PRO. To account for the distributional properties of PRO, Chomsky (1981) proposes that PRO is [+pronominal, +anaphoric] in that it has to satisfy both Condition A (PRO must be bound in its Governing Category) and Condition B (PRO must be free in its Governing Category).[136] Chomsky proposes that the only way to satisfy these contradictory requirements is to claim that PRO lacks a Governing Category. This implies that PRO is ungoverned and can only occur in non-finite clauses.

[135] MDP was first introduced by Rosenbaum (1967) (cited in Hornstein 1999), then adopted by Hornstein (1999, 2001), Boeckx and Hornstein (2004), Manzini and Roussou (2000), Martin (2001). However, not all control studies adopt MDP, Koster (1984) denies the operational power of this principle.

[136] Note that Chomsky's (1980 and 1981) accounts of PRO based on Binding Theory do not reflect the general point of view in GB era. See Ruzicka (1983) for the lexical classification of different verb types in lexicon and Nishigauchi (1984) for the characterization of control relations in terms of thematic relations.

5.7.1.3. Empirical Problems of PRO

GB analysis of the structures in line with MDP is not without problems. Consider (67) where PRO is controlled by the main subject.

(67) Ali$_i$ Ahmet-e$_j$ [PRO$_{i/*j}$ sinema-ya git-meğ-e] söz ver-di
Ali Ahmet-DAT cinema-DAT go-INF-DAT promise-PAST
"Ali promised Ahmet to go to the cinema."

In (67) PRO in Spec-TP of non-finite clause is controlled by the subject NP *Ali*. However, there is another NP *Ahmet*, the closest c-commanding NP for PRO which nevertheless cannot control it. This is a locality problem for GB analysis of control structures. Following Larson (1991), we can account for this problem by assuming that *söz ver-* (promise) is a double-object verb whose clausal argument is higher than the object NP *Ahmet*. Hence, PRO is controlled by the subject, the closest c-commanding NP. However, this account requires us to stipulate that all double-object verbs behave in the same way which is not the case in Turkish.[137] Consider (68).

(68) Ali$_i$ Ahmet-i$_j$ [PRO$_{*i/j}$ Ankara-ya git-meğ-e] ikna et-ti
Ali Ahmet-ACC Ankara-DAT go-INF-DAT persuade-PAST
"Ali persuaded Ahmet to go to Ankara."

(68) involves a double-object predicate *ikna et-* (persuade). Note that Larson's analysis predicts the clausal complement to merge higher than the object NP *Ahmet* in order for the subject NP *Ali* be the closest c-commanding NP for PRO. However, PRO in (68) is controlled by the object NP rather than the subject NP. Therefore, it is not clear in GB analysis how and why the two predicates behave differently with respect to the control

[137] Another problem with Larson's explanation is the difficulty it brings to the application of movement. If the object NP is merged lower than the clausal complement, we have to provide its movement in S-Structure to satisfy the surface word order. Assuming that movement is for only feature checking, this movement would violate Last Resort and Merge over Move conditions of Minimalist Program.

possibilities.[138] Another problem with MDP is the possibility of split control with the verb *ikna et-* (persuade). Consider (69).

(69) Ali$_i$ Ahmet-i$_j$ [birlikte PRO$_{i+j}$ Ankara-ya git-meğ]-e ikna et-ti.
Ali Ahmet-ACC together Ankara-DAT go-INF-DAT persuade-PAST
"Ali persuaded Ahmet to go to Ankara together."

As observed in Oded (2006) PRO is controlled by the subject and the object NPs together, an instance of split control in (69). I point out following Landau (2004) that MDP has no explanation for the split control case above. PRO in (69) seems to receive its interpretation from the adverb *birlikte* (together)[139]. The final problem of MDP is the lack of c-command in (70a-b).

(70) a. [PRO$_i$ Ankara-yı gör-e-me-mek] Ali-yi$_i$ üz-dü
Ankara-ACC see-NEG.ABIL-NEG-INF Ali-ACC make.sad-PAST
"Not to see Ankara made Ali sad."

b. [PRO$_{i/j}$ oda-da sigara içmek] Ali-ye$_i$ zarar verdi.
room-DAT smoke-INF Ali-DAT give.harm-PAST
"Smoking in the room gave Ali harm."

In (70a-b) the clausal complement is in Spec-TP of the matrix clause. Hence, the antecedent does not c-command PRO, a problem for MDP which requires the antecedent to c-command PRO in obligatory control cases. The structure in (70a) seems to be an example of the partial control in line with Landau (2004) and may not be

[138] Larson (1991) provides explanations for similar cases in English based on Semantic Construal which is totally independent of Control Theory of GB. I assume that this weakens the explanatory power of MDP. Note also that in (68) different case marking of the closest NP *Ahmet* has an effect on the control facts in that (67) and (68) are actually different structures. I thank Meltem Kelepir for pointing this out to me.

[139] The presence of the adverb *birlikte* (together) needs an explanation. It may be the case that the postpositional character of *birlikte* requires a *pro* complement which assumes the features of PRO. However, the case addresses the need for a semantic analysis in line with Culicover and Jackendoff (2001) based on lexical semantics of the verbs. Note that there is no need for an adverb *birlikte* to have i+j reading in a sentence such as (i) below:

(i) Ali$_i$ Emel-i$_j$ [PRO$_{i+j}$ evlen-meğ]-e ikna et-ti.
Ali Emel-ACC marry-INF-DAT persuaded
"Ali persuaded Emel to marry."

considered a problem for MDP. However, (70b) as an exhaustive control case, is problematic for MDP.

Note also that in adjunct clauses PRO can be interpreted with non-c-commanding as well as non-local antecedents. Consider a familiar instance of PRO in adjunct clauses in (71).

(71) Ali_i Ahmet-i_k [$PRO_{i/k/i+k}$ koş-arken] gör-dü.
Ali Ahmet-ACC run-when see-PAST
"Ali saw Ahmet when he is running."

Note that PRO in (71) can take either *Ali* or *Ahmet* or split antecedent *Ali+Ahmet* as its antecedent. This is problematic for MDP given that *Ahmet* is the closest c-commanding antecedent for PRO. However, all other possible co-indexation patterns are also grammatical. Moreover, scrambling as a result of which PRO is no longer in the c-command domain of its antecedent does not affect the interpretation. Consider (72a-b).

(72) a. Ali_i [$PRO_{i/k}$ koş-arken] Ahmet-i_k gör-dü.
Ali run-when Ahmet-ACC see-PAST
"Ali saw Ahmet running."

b. Ali_i Ahmet-i_k gör-dü [$PRO_{i/k}$ koş-arken]
Ali Ahmet-ACC see-PAST run-when
"Ali saw Ahmet running."

In (72a) *Ahmet* does not c-command PRO, but the interpretation in which it controls PRO is available. Likewise in (72b), the adjunct clause is right adjoined to CP *à la* Kural (1992) as a result of which PRO is not c-commanded by either of the NPs. Note that i+k reading of PRO is not available in these cases unlike the one in (71). This might be due to the fact that the complement of the matrix verb *Ahmet* occurs in its canonical position which receives sentential stress (Göksel and Özsoy 2000).

We have seen that PRO analysis of control structures causes problems for the Turkish data. Now, let us discuss how PRO is accounted for in our system.

5.7.2. The Licensing of PRO

This section discusses the licensing of PRO in our system and its implications. I propose that the facts observed so far are best accounted for if we reduce control cases into the operator-variable chain that we make use of for other grammatical phenomena such as resumption, binding and null object constructions. The proposal is based on the claim that the lexical antecedent and the syntactic antecedent of PRO are distinct as in the case of resumptives and anaphors. That is to say, I argue that the lexical NP antecedent of PRO has nothing to do with licensing or controlling it in syntax. The antecedent sits in whatever position it occupies and a syntactic antecedent of PRO, an empty operator, licenses it.

The chain formation is akin to binding chains. An empty operator and a resumptive merge at the beginning of the derivation in the position where PRO is assumed to occur. The Operator moves to the C domain and binds a variable, i.e. PRO, behind it. The resumptive is deleted at PF, hence null subject of the infinitival clause.

The PRO chain explains a number of phenomena which are problematic in terms of classical Binding Theory conditions and approaches to control within Minimalism. First, the empty operator moves successive cyclically to the C domain via A'- movement. The fact that intermediary A- positions are filled by potential antecedents for PRO (which would be problematic for an A- movement approach) would not be a problem given that movement is an instance of A'- movement. Second, since the lexical antecedent does not participate in the syntactic licensing of PRO, split antecedent problem in a movement based model will not be a problem either[140]. Third, the fact that the subject position of adjunct clauses can only be pronounced as *kendisi* under co-reference with the matrix subject follows from the analysis. *kendisi* is the form

[140] Meral (2006), Oded (2006) and Oded and Öztürk (2006) point out that split antecedent is a problem for Hornstein's movement based approach to control structures. However, See Fujii (2006) for an investigation of the issue.

in Turkish which is devoted to the pronunciation of bound variable positions. Fourth, the proposal here does not suffer from c-command based problems of PRO analysis given that the syntactic positioning of the lexical antecedent does not matter.

One problem however has to be discussed. Similar to the binding chains, there are control structures where PRO is bound by a c-commanding quantificational expression in the subject position. (17) of this chapter is repeated here as (73).

(73) Herkes$_i$ [PRO$_i$ koş-mak] iste-di.
everyone run-INF want-PAST
"Everyone wanted to run"

In (73) the quantificational expression in the subject position binds PRO. I propose that the same reasoning applies here too. At LF, two separate chains are reduced into one via a chain reduction mechanism.

To conclude, this section discussed the possibility of taking control phenomenon as another instance of operator-variable chains. I argued that control under operator-variable chain fares well compared to Control module and other minimalist approaches to PRO.

5.8. On the Nature of A- Chains Locality

Note that we proposed A'- chains (operator-variable) for the licensing of grammatical operations such as binding, control and null object constructions. The system I offered is supported by a number of independent facts related to the clause structure of Turkish. In this section, I will discuss the problematic aspects of A- chains with respect to locality in Turkish. The problematic aspects of A- chain analysis of these structures in Turkish is the leading idea behind the A'- treatment of the grammatical operations such as binding and control.

5.8.1. Locality: Minimal Domains, Minimal Distances, Minimal Links

The issue of locality is at the heart of syntax since the advent of generative theory. It defines the domain (upper-bound limit) for the application of syntactic operations such as movement, binding and control. Island Constraints (Ross 1967), Relativized Minimality (Rizzi 1990), Shortest Move and Minimal Link Condition (MLC) of Minimalism for movement; Minimal Binding Requirement (MBR) (Aoun and Li 1993, 2003) for binding and Minimal Distance Principle (MDP) Rosenbaum (1967) (cited in Hornstein 1999) for control can be listed as locality based conditions on syntactic operations.[141]

This section argues that the locality based principles which define a minimal domain for binding, minimal distance for control and minimal link for movement do not seem to be respected in Turkish. In other words, Turkish applies locality in a different sense where the locality considerations are derived not via the specific distance between the positions, but via the types of operations and types of movement involved in a given clausal architecture. We argue that this property of Turkish follows from a proposal that the C domain in Turkish actively participates in the licensing of grammatical operations. I will discuss the clause structure in Chapter 6.

5.8.1.1. Long Distance Binding

As I have stated in Chapter 4, binding across a local domain is possible in Turkish. The relevant examples are repeated in (74a-b) below.

(75) a Ahmet$_i$ [pro$_k$ *kendin*-e$_{i/*k}$ bir takım elbise al-ma-m]-ı ist-iyor.
Ahmet himself-DAT a suit buy-NOM-1sg-ACC want-PROG
"Ahmet wants me to buy a suit for himself."

[141] The opposite condition (anti-locality) applies too. Grohmann (2003) points out that there is a lower bound on locality.

b. Ali_i [Ahmet'in_k *kendin*-$e_{i/k}$ gül-düğ-ün]-ü san-dı.
Ali Ahmet-GEN himself-DAT laugh-NOM-3sg-ACC think-PAST
"Ali thought that Ahmet has laughed at himself"

In (74a-b) the anaphoric expression *kendi* can be bound by a lexical NP outside of its minimal domain. We hold that this questions the possibility of a minimal domain for binding. First, let us consider that the anaphoric expression in (74a-b) is actually a pronoun, hence obeying Condition B. This validates the grammaticality of the structure in (74a) given that the antecedent and the pronoun are in distinct clauses. However, (74b) would still be problematic given that the pronominal expression can take the local subject as its antecedent. Hence, this option is ruled out.

I proposed in Section 5.3 that anaphoric dependencies in Turkish can be handled by an A'- chain where the Operator in the C domain binds the anaphor rather than the lexical antecedent. This also explains long distance binding that is observed here.

5.8.1.2. Long Distance Control of PRO

In this section, we argue that long distance control of PRO is available in Turkish and this provides additional evidence for the lack of a minimal domain for A- chains. Note that PRO can be controlled by an NP in long distance as pointed out in Huang (2000:44) for languages such as Chinese. Consider the example below:

(75) Xiaohong de meimei shuo mama jueding mingtian
Xiaohong POSS younger sister say mother decide tomorrow
bu yong qu shang youeryuan
not need go go to kindergarten
'Xiaohong's$_1$ younger-sister$_2$ says that mum$_3$ has decided that (she$_{1/2/3/4...}$) need not go to kindergarten tomorrow.'

Huang (2000:44) Example 2.81(a)

In (75) PRO can be controlled by all of the NPs in the structure as well as a different discourse antecedent. When we consider Turkish data, we observe the same fact for the interpretation of PRO. It can be controlled by an NP in long distance or in discourse. Consider the example in (76).

(76) Ali-nin$_i$ kardeş-i$_k$ [baba-sın-ın$_m$ [[PRO$_{i/k/m/n/i+k/i+m/k+m}$ yarın okul-a
Ali-GEN brother-3sg father-3sg-GEN tomorrow school-DAT
git-meğ]-e gerek ol-ma-dığ-ın]-a karar ver-diğ-in]-i söyle-di.
go-INF-DAT need be-NEG-NOM-3sg-DAT decide-NOM-3sg-ACC tell-PAST
"Ali's brother said that his father has decided that (he$_{i/k/m/n/i+k,/i+m/k+m}$) need not go to the school tomorrow."

In (76) there are three NPs which c-command PRO, *baba-sı* (his father), *kardeş-i* (his brother) and *Ali*. All of the NPs can be co-indexed with PRO, indicating that PRO can be controlled out of a long distance position.

5.8.1.3. A- Scrambling

Distinct from the grammatical operations investigated in this dissertation, scrambling phenomenon independently supports our view here. There are certain structures which have been assumed to exemplify A- scrambling that involve the movement of an NP which does not obey the locality restrictions, i.e. Minimal Link Condition of Chomsky (1995). Consider the example (77) from Öztürk (2004:262) where the complement NP moves to the Spec-TP position over the subject. The example is slightly modified for the present purposes.

(77) [Bir kitab-ı]$_i$ her çocuk t$_i$ oku-du.
a book-ACC every child read-PAST
"Every child read a book."

Öztürk 2004:262 Example (59)

In (77) there are two scope taking NPs, the indefinite NP *bir kitab-ı* (a book) and the universal quantifier *her çocuk* (every child). Note that the accusative marked indefinite

NP unambiguously takes wide scope over the universally quantified NP, a fact which has also been observed in Kelepir (2001). In order for this to happen, the complement NP has to move over the subject NP, a movement which violates the Minimal Link Condition given that the subject NP is closer to the landing site of the movement, as also pointed out by Öztürk (2005). Following this fact, we argue that the Minimal Link Condition is violable when we consider the Turkish facts.

However, if we consider the A- movement of the NP *bir kitab-ı* (a book) as an instance of A'- movement, we would not have such a problem given that A'- movement is allowed to cross a subject NP. The object NP moves to the C domain via adjunction in order to get the surface word order which correctly predicts the scope facts, i.e. indefinite NP scopes over the universal quantifier. Note that this account is based on the proposal that scrambling is an instance of A'- movement as argued in Kural (1993). I leave the issue of A- versus A'- nature of scrambling for further investigation. However, I would like to remark that A'- analysis of scrambling (of the sort presented in this study) would capture a number of facts regarding the island insensitivity of scrambling in a number of contexts.[142]

5.8.1.4. Long Distance A'- movement

This section argues that the fact that Turkish allows long distance extraction in A'- contexts provides another piece of evidence for our claim. The data I consider in this section involves relative clauses where the empty operator seems to be extracted from a domain which has been assumed to be an island for extractions.

[142] Based on the scope facts in (77), Öztürk (2005) argues that local scrambling in Turkish is an instance of A- scrambling which violates MLC. Note that the idea that scrambling is A- movement is based on the fact that the scrambled indefinite in (77) is not interpreted in the base position, i.e. it does not require reconstruction of the indefinite to its base position. However, I propose that this does not necessarily show that (77) is an instance of A- scrambling. We can point out that A'- scrambling does not facilitate reconstruction. There is a large literature on the issue and the judgments are not consistent. I acknowledge the fact that future research has to be done on the issue.

The questions whether Turkish has islands or what is argued to be an island for some languages also holds for Turkish or what counts to be an island in Turkish were discussed in Chapter 3 in detail. Here, I provide some examples to show that Turkish allows long distance extractions of constituents from islands. Consider (78):

(78) [$_{Rl.Cl}$ [$_{wh\text{-}island}$ Kim-in t_i öldür-düğ-ün]-ü bil-me-diğ-im] adam$_i$
who-GEN kill-NOM-3sg-ACC know-NEG-DIK-1sg man
"The man I don't know who killed"

In (78) the empty operator seems to be extracted from the complement position of a wh-clause and the structure is grammatical. This shows that Turkish allows long distance extraction of an operator via A'- movement.

However, overt versus covert movement has to be distinguished with respect to long distance applicability.[143] For instance, while covert movement does not respect islands, overt scrambling does so given that the following structure is ungrammatical.

(79) *[Kitab-ı]$_i$ [$_{CP}$ ben [$_{Rl.Cl.}$ sen-in t_i göster-diğ-in] kız-ı tanı-mı-yor-um]
book-ACC I you-GEN show-DIK-2sg girl-ACC know-NEG-PROG-1sg
"I do not know the girl that you showed the book."

In (79) the movement of the complement of the relative clause is not allowed, hence the ungrammaticality. Here, movement out of a relative clause is banned as I have pointed out in Chapter 3 where the ungrammaticality is explained by the presence of an operator inside the relative clause. This implies that there are restrictions on overt phrasal movement.

To conclude this section, I argued that the idea that Turkish possesses minimal domains where the grammatical operations such as binding, control and movement take place might not be true, or at least problematic in many respects. That is, binding across clauses, control from a long distance antecedent and movement over another NP are all

[143] I thank Balkız Öztürk for pointing out this and the example in (79) to me. See Aygen (2002), İkizoğlu (2006) for the discussion of the domains out of which extraction results in ungrammatical outputs.

possible in Turkish. However, this does not mean that grammatical operations such as Move apply freely in Turkish. What I intend to say is that it is a fact that while some instances of movement do not obey islands, others do. Thus, what is important is not the domain, i.e. a certain distance, itself but the operations which are involved in the domain and the type of movement and moved material.

5.8.2. Minimal Domains in Turkish?

As I have shown in the previous sections, Turkish does not seem to require NPs to be licensed in a certain minimal domain. In other words, the grammatical operations such as binding, movement and control can take place in long distance fashion. I argue that this property of Turkish is related to the clausal structure of the embedded clauses and specifically to the way clauses are embedded in Turkish. I argue that it might be the properties of the C domain which causes Turkish to be problematic for the local nature of A- chains.

Recall that I proposed an analysis for the grammatical phenomena such as resumption, binding, control and null object constructions. The core property of the analysis is that it relies on A'- chains where the empty operator is associated in these grammatical operations. I propose that the A'- nature of these operations is a direct consequence of the facts we observed with respect to the locality problems observed in A- chains.

Moreover, the way of clausal subordination is also a factor for transparency in Turkish. That is to say, Turkish does not possess overt complementizers which head the C domain. Clauses are embedded either through nominalization morphemes which have aspectual information on the verb or through direct embedding of a finite clause under another finite verb without being dominated by an overt C head. I propose that the nature of embedding in Turkish makes the clausal borders less rigid unlike languages

such as English. It might be the case that it is the nominal nature of the clause which provides such transparency. Maybe, the clauses are dominated by a null *n* head on the top of C domain and this (i) makes the clause transparent, and (ii) licenses the genitive case on the embedded subject positions (cf. Aygen 2002 and Kornfilt 2004).

In the next chapter, we will see that finiteness of a clause has no effect on the transparency versus opacity of a clause for grammatical operations such as binding, control and raising. The reason for all these facts must be related to the exact nature of the C domain in Turkish. Recall that in the discussion so far, I heavily relied on operators for grammatical operations. What is the nature of the C domain so that it allows operators to merge in or move to the positions in the left periphery and instantiate these operator-variable chains? What is the exact mission of the C domain on clause structure? These are the questions which I will try to handle in clausal the architecture chapter.

5.9. Conclusion

In this chapter, I have provided an analysis for the overt anaphoric expressions such as *kendi* and covert anaphoric expressions such as PRO and *pro*. The analysis I provided is based on the resumptive chains that I introduced in Chapter 3. I argued that the resumptive chains can license the different grammatical operations such as binding, control and null object licensing. This implies that the application domain of resumption is not restricted to the relative clauses where they heavily occur, but can be extended to other grammatical phenomena.

The basic assumption of the chapter is that overt expressions such as *kendi*, *kendisi* and covert expressions PRO, *pro* are actually of variable nature. I have shown that this assumption finds support from different sets of data in Turkish. Once they are proved to be variables, I proposed that their licensing can be mediated by operator-

variable chains which I made use of in resumption chapter. Indeed, these distinct grammatical phenomena have similar properties in Turkish.

Moreover, the locality problems observed in the licensing of these categories are used as support for the A'- nature of these phenomena instead of A- nature which has strict locality implementations. This led to the idea that Turkish is a predominantly A'-language where most of the grammatical operations can be handled by means of operator-variable chains which employ different locality conditions. What is also important here is that the discussion takes us to a position where we can argue for the weak nature of A- domains in Turkish. Recall that A- domain causes many problems in Turkish with respect to locality. Öztürk (2005) argues that there is no case driven Agree in Turkish and also there is no passive movement.[144] Together with the facts observed in Öztürk (2005, 2007), I argue that the A- domain in Turkish can be argued to be weak. Note that Öztürk (2005) independently argues for the absence of A- domain in Turkish and proposes that the A'- domain should be more active in the language. What we observe in this chapter follows from the proposal in Öztürk (2005) in that the A'-domain in Turkish subsumes all the functions of A- domain operations with a different sense of locality.

Also, I discussed the transparency versus opacity of Turkish subordinate clauses with respect to grammatical operations. In the next chapter, I will discuss the clausal architecture of Turkish and I hope this will help to understand better why Turkish behaves in this way.

[144] See Öztürk (2007) for the analysis of passive construction in the absence of A- movement.

CHAPTER VI

IMPLICATIONS ON THE CLAUSAL ARCHITECTURE OF TURKISH

This chapter discusses the issue of clausal architecture of Turkish in light of the current state of the art and basic tenets of Minimalism. What is aimed here is to present a clausal architecture which correctly predicts the facts presented and analyses put forward in the previous chapters. I basically argue that Chomsky's (2005, 2007) proposal, *feature inheritance* according to which T inherits features from the phasal head C in order to establish Agree relation with DPs for subject case checking and EPP does not seem to capture the facts observed in Turkish. I propose that Chomsky's feature inheritance is conceptually problematic for a language with a weak A- domain instead of which a rich A'- domain is active, a conclusion we reached in the previous chapter. Rather, Turkish implements a system where the functional projections in the C domain are endowed with features to be checked by linguistic expressions. Thus, following Rizzi's (1997) influential work on the left periphery, I propose that the C domain in Turkish consists of projections which are crucial for licensing relationships in the clause. I also argue following Kural (1993) and contra Zwart (2001), Aygen (2002), Ulutaş (2006), Akan (2009) that there is a CP layer in clausal architecture to which the verbs move in Turkish. It is the CP domain of the clausal architecture which defines finiteness and is responsible for subject case licensing.

6.1 Subject Case Licensing and Finiteness in Generative Theory

Within generative theory, the issue of finiteness is considered as subject case licensing based on the fact that while finite clauses have an overt subject in nominative case, non-finite clauses have either no overt subject or subjects in different case. In GB era, subject case was considered as being assigned by functional elements, tense (Chomsky

1977, 1981) or agreement (George and Kornfilt 1981), which are hosted in the Infl head. Later, case and agreement are considered morphological reflexes of a grammatical relation by Baker (1985). In late GB era, Pollock (1989) proposed that tense and agreement have their own maximal projections as TP and AgrP respectively. AgrP is further split into two as AgrSP and AgrOP, the former being the locus of the nominative subject case and the latter being the locus of the accusative case of complements.

This is also the position held in the early Minimalist era (Chomsky 1993, 1995) where the Spec-Head agreement between the subject DP and the AgrS head is responsible for the nominative case on subjects, and between the complement DP and AgrO head for the licensing of the accusative case on complements. In the second decade of Minimalism, AgrP projections are dispensed with in favor of TP which is argued to be the locus of finiteness. The Agree relation is introduced in Chomsky (2000, 2001) for the Spec-Head agreement in the early Minimalist era.

Alexiadou and Anagnostopoulou (2001) argued that case features are located on the functional heads *v* and T, where the former corresponds to the accusative case and the latter to the nominative case. The subject which is generated in VP moves to Spec-TP position in order to check case with the complex head (v-T) on T. They proposed that by Spell-out VP can contain only one argument with an unchecked case feature and this acts as a motivation behind the movement of the subject to Spec-TP.[145]

6.1.1. Pesetsky and Torrego (2001)

Following the fact that case features have no semantic interpretation, Pesetsky and Torrego (2001) proposed that case is the *uninterpretable* counterpart of some interpretable feature. For instance, nominative case is the *uninterpretable* instance of Tense in English.

[145] See Arslan (2006) for a discussion of Alexiadou and Anagnostopoulou (2001) and Öztürk (2005) for the arguments to the contrary.

With this, Pesetksy and Torrego (2001) attempt to unify the two proposals in the GB era: Tense (Chomsky 1980) versus Agreement (George and Kornfilt 1981, Chomsky 1981), as the subject case licenser. They suggested that case assignment of GB era is an instance of the Agree relation as a result of which the unvalued T feature of a DP is valued by T itself. Pesetsky and Torrego (2001) proposed that T head has *uninterpretable* φ-features which must be checked by the subject DP in Spec-TP position via the operation Agree, a local operation between a Probe and a Goal.

Moreover, Pesetsky and Torrego (2001) argue that T-to-C movement depends on the *uninterpretable* T feature on the C head and explain the subject-auxiliary inversion in English. Accordingly, if there is an *uninterpretable* strong T feature on C, auxiliary moves to C position. Also, that-trace effects receive an explanation in Pesetsky and Torrego's (2001) system. In the similar line of argumentation, Pesetsky and Torrego (2001) explain the verb movement to C in French (Pollock 1989) as an instance of feature checking according to which the *uninterpretable* strong T or strong Q feature of C is checked by verb movement.

6.1.2. Chomsky (2000, 2001, 2005, 2007, 2008)

After the introduction of phase theory by Chomsky (2001), structural case is considered a property of the phasal domains (CP for the nominative subject case and *v*P for the accusative object case). Chomsky (2005, 2007) proposes that the relation between C and T heads should be redefined in that φ-agreement and tense features which are associated with the inflectional domain are not intrinsic properties of T head, but belong to C, which is the phasal head. The features which are generated in the phasal head C percolate down to T head for case checking purposes. That is to say, the features are inherited from the phase head C, a process labeled *feature inheritance*. Thus, T is no longer able to initiate grammatical operations such as nominative case checking or EPP

checking. Related to the Agree, this means that T cannot alone establish an Agree relation with the DPs in its specifier position, unless it inherits necessary features from the C head.

Chomsky's (2005) account on the relations between C and T explains the distinction between φ-defective T in infinitival, ECM and raising contexts where the DP checks accusative case or raises to the matrix clause for nominative case checking. Accordingly, the lack of C head in infinitival clauses means for T being unable to inherit features, hence to establish Agree relation with the DPs.

For the conceptual necessity of the phasal head C, Chomsky (2005) proposes that *feature inheritance* follows directly from the idea that A- versus A'- distinction has to be established in the Conceptual-Intentional (C-I) level. Chomsky (2005) proposes that the *edge feature* of C is responsible for A'- domains where the movement targets an A' -position, Spec-CP and *Agree feature* of C is responsible for A- domains where the movement targets Spec-TP and is triggered by the Agree feature on T inherited from C.[146]

According to Chomsky (2000, 2001, 2005), phases are necessary parts of the language design given that they reduce the computational complexity and eliminate the unnecessary internal levels, i.e. cycles. This is related to the memory limitation given that the derivational cycles, i.e. phases are sent to the interface levels after they are complete. The phase head has all the uninterpretable features, Agree and Edge features. These features correspond to a distinction between the Edge (specifier) and non-Edge (complement) positions of the phase whose materials are sent to the interface levels (transferred) separately. Chomsky (2001) introduces Phase Inpenetrability Condition (PIC) given in (1) below.

[146] See Richards (2006) for a discussion on the rationale behind *feature inheritance* and Özsoy (2005), Ulutaş (2006) for the application of *feature inheritance* from the C head in Turkish for scrambling and subject case checking respectively.

(1) *Phase Impenetrability Condition*
No further operation such as *Move* and *Agree* can be applied to any constituent below the head of a strong phase; only a constituent at Spec CP position is available for an operation like *Move* to D°/N°.

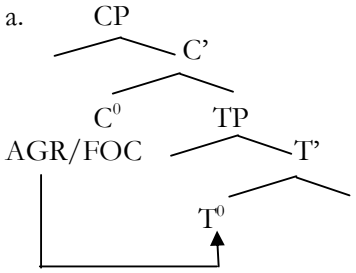
Chomsky (2001)

PIC given in (1) restricts the probe domain of a head and argues that syntactic operations, i.e. movement or Agree, can only detect an edge, i.e. specifier, position of the previous phase, but not any position below that. Thus, PIC can be considered a condition on movement which imposes successive cyclic derivation where the edges function as escape hatches.

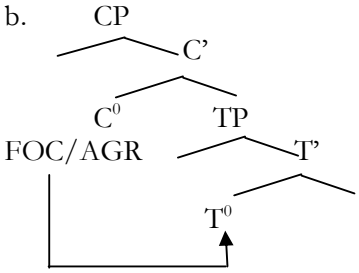
6.1.3. Miyagawa's Distinction: Agreement versus Focus Prominent Languages

Miyagawa (2004, 2006) argues that languages are uniform in the absence of compelling evidence to the contrary, an argument known as *Uniformity Hypothesis*. He argues that focus is computationally equivalent to agreement in languages such as Japanese where there is no agreement between the subject and the verb. He divides languages into two as (i) focus prominent languages (Japanese) where the focus feature of C percolates down to T head for the raising of the focused constituent to Spec-TP, and (ii) agreement prominent languages (English) where the Agr feature of C percolates down to T head for the raising of an agreeing constituent to Spec-TP. Thus, focus and agreement are generated at the C head and percolate down to T head. These two operations are given in (2a-b) below:

(2) a.



b.



(2a-b) represent feature percolation according to which Agr and Foc features of C percolate down to T respectively. Note that feature percolation is first introduced in Chomsky (1995).[147] Miyagawa's (2004) analysis is in the same direction with Chomsky (2005) where he suggests feature inheritance from the C head to T head. Miyagawa (2004) suggests that Turkish is a focus prominent language despite rich subject-verb agreement.

In his (2006) work, Miyagawa argued that for Turkish both options are at work. That is to say, both focus and agreement features percolate down to T. Özsoy (2005, to appear) implemented a system of feature inheritance according to which the topic feature of C percolates down to T in order to check the topic feature of the constituents which raises to Spec-TP (multiple Spec). Following Miyagawa (2004), Ulutaş (2006) proposed that nominative-genitive distinction in Turkish follows from which strong feature, focus or agreement, percolates down to T head.

Özsoy (2005) argues that the topic feature of C can percolate down to T and create multiple specifier positions. This is the motivation for scrambling and constituents with the topic/focus feature can move to Spec-TP where the multiple EPP feature is present. Özsoy (2005) also argues for the possibility that the topic feature does

[147] Feature percolation is applied to many distinct phenomena in language. Cole et. al. (1993) deals with long distance reflexives in Korean, Chinese and other languages and argue that feature percolation provides an explanation for this phenomenon. Warner (1988) explains the coordination of English NPs with feature percolation mechanism. Honda (1993) considers pied-piping as downward feature percolation (see also Cowper 1987).

not percolate down to T and constituents with the topic feature move long distance to Spec-CP in order to check the uninterpretable feature of the C-head.

Ulutaş (2006) proposes a feature percolation mechanism according to which the Agr and Foc features of the C head percolates down to T. Depending on which feature percolates down, i.e. Agr or Foc features, he argues that the nature of the relativized constituent and the choice of the nominalization morpheme are determined. Thus, he argues not for a T-to-C movement but C-to-T percolation of Agr and Foc features. Unlike Miyagawa (2004), Ulutaş (2006) argues that Turkish also has the percolation of Agr feature when it is strong alongside the percolation of Foc feature. The percolation of Agr feature is for subject case checking via an Agree relation between T head and the DP in Spec-TP in the sense of Chomsky (2005). In non-subject relativization strategy, Agr feature of the C head percolates down to T. In subject relativization, on the other hand, Foc feature percolates down to T. Ulutaş (2006) extends his account to genitive case checking in nominalized clauses in that feature percolation from C head to the null n head accounts for the genitive case which appears in the subjects of nominalized embedded clauses.

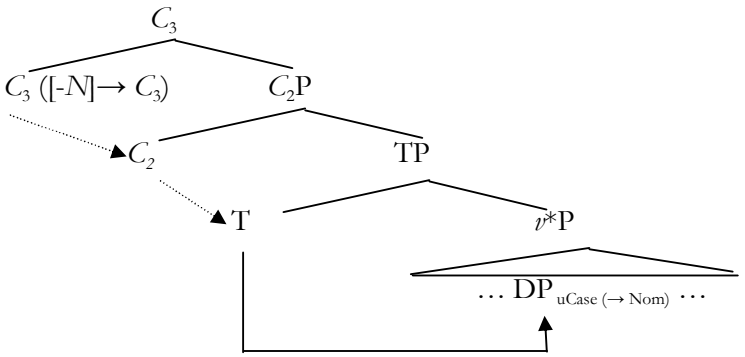
6.1.4. Multiple Agree: Hiraiwa (2005)

Chomsky's (2005) *feature inheritance* is further developed in generative theory with respect to the nature of the Agree relation in syntax. Hiraiwa (2005) proposed that a Probe can Agree with more than one Goal derivationally and simultaneously, a process labeled *Multiple Agree*. Multiple Agree takes place bi-directionally and follows from two symmetrical relations: (i) Mirrorsymmetry, and (ii) Centrosymmetry. Under the first relation, Value (Probe, $Goal_1$, $Goal_2$) returns Value ($Goal_1$, Probe) and Value ($Goal_2$, Probe). According to the second relation, Value (Probe, $Goal_1$, $Goal_2$) returns Value ($Goal_1$, $Goal_2$, Probe). Hiraiwa (2005) argues that both types are attested in languages.

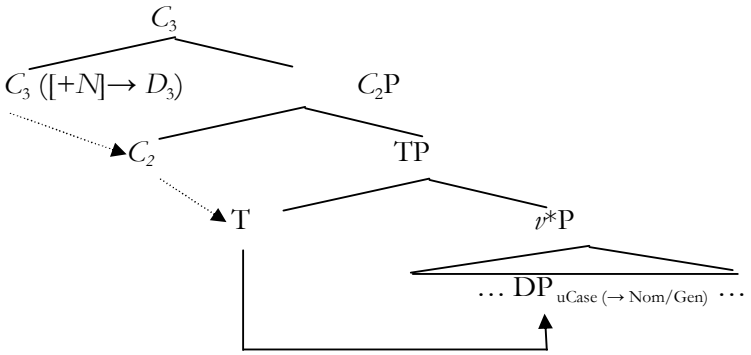
Note that Hiraiwa's Multiple Agree is a novel treatment of subject case checking in generative theory in that the case-agreement relation has been assumed to be a one-to-one relation before with the exception of Ura (1996). Based on Hiraiwa (2001), Hiraiwa (2005) proposes that Multiple Agree with a single probe is a simultaneous syntactic operation where Agree applies to all matched goals at the same point in the derivation. Thus, Agree is unrestricted with respect to the number of elements, i.e. goals. However, Multiple Agree is limited with a search domain and this search domain comes with Phase Inpenetrability Condition of Chomsky (2001).

Hiraiwa assumes that CP domain consists of C_3P corresponding to ForceP of Rizzi (1997) and C_2P corresponding to FinP. For subject case checking, he argues that it involves a valuation under Agree and is a function of a C and a T head. Watanabe (1993), Iatridou (1993), Collins (1993), Hiraiwa (2001), Pesetsky and Torrego (2001) and Chomsky (2004) (cited in Hiraiwa 2005:27) suggested that the nominative case assignment involves C as well as T. Following these studies, Hiraiwa proposes that nominative case assignment is the result of C_2-T relation. Moreover, the same C_2-T relation is responsible for Genitive case assignment under certain syntactic conditions. These are given in (3a-b).

(3) a.



b.



With the mechanisms offered in (3a-b) Hiraiwa (2005) explains the Nominative-Genitive Conversion in Japanese. In Nominative-Genitive Conversion structures there is an external D head which checks genitive case by itself. Hiraiwa (2005:111, 122-3) extends this analysis to Turkish where the genitive case is realized on the subjects of embedded clauses. Uninterpretable φ-features of C_2 percolate down to T and they together probe the DP subject in Spec *v*P. Also, Hiraiwa (2005:114) proposes that the nominative-genitive conversion is related cross-linguistically to the nominalization of the embedded predicate in these languages.

6.1.5. Proposal 1: Do We Need Feature Inheritance?

After discussing the current state of art in Minimalist Program on subject case licensing, I propose in this section that feature inheritance of Chomsky (2005, 2008) according to which features of the phasal head C percolate down to T in order to license subject case does not seem to be tenable in Turkish. Independent of subject case licensing or other

instantiations of feature percolation from C head (topic feature checking, EPP checking, relativization strategies), I reject feature inheritance on the conceptual grounds.

Chomsky (2005) proposed that feature inheritance is conceptually needed in order to make sure that A- versus A'- distinction is structurally available in C-I level. This distinction corresponds to the Agree and Edge features of the phasal head respectively. Our discussions in the previous chapters, on the other hand, reached the conclusion where the A- versus A'- distinction in Turkish seems to be superficial. The operational weakness of the A- domain and the locality problems made us argue for a rich A'- domain where various grammatical phenomena are licensed. Thus, Turkish does not seem to need to have feature inheritance from the phasal head C to T head in order to create an A- domain for constituent movement for feature checking purposes, i.e. subject case licensing, scrambling, or for binding purposes and/or control.

I also propose that the phase based derivation is not an obligatory procedure that languages follow especially for sending materials to interpretive components, PHON and SEM. In other words, the system offered here does not have to follow "Derivation by phase" offered in Chomsky (2001). Rather, each instances of chain formation, i.e. operator-variable chains, or each instances of Merge in the sense of Epstein and Seely (2002) can be sent to the interpretive component.[148]

However, this does not mean that C head is devoid of features. I propose that the C domain in Turkish is rich enough to instantiate the licensing of subject case on the one hand, and both A- domain operations such as binding and control and A'- domain operations such as topicalization and relativization on the other hand. Thus, it is the active A'- domain in Turkish which is responsible for licensing relations in narrow syntax. I propose that the functional heads in the C domain such as Force, Topic and Fin heads are the locus of feature checking in Turkish. These functional heads follow

[148] See also Boeckx and Grohmann (2007) for arguments of locality different from Phase based system. Also, Müller (2007) proposes that any saturated XP can qualify as phase.

from Rizzi's (1997) work on the left periphery and roughly correspond to C_3P, C_2P of Hiraiwa (2005). However, instead of downward feature percolation from these heads to T, I implement V-to-T-to-C movement as a result of which a head amalgamate is formed in the sense of Hiraiwa (2001). Verb movement instead of downward feature percolation is adopted here given there is no need for it.

Throughout the chapter I will discuss the crucial ingredients of this proposal. Section 6.2 is aimed to show the problematic aspects of the idea that a single category, Agr or T, is responsible for subject case licensing. In section 6.3 I discuss the need for a C domain in Turkish clausal architecture. Section 6.4 gives the syntactic nature of the C domain in Turkish.

6.2. Finiteness in Turkish: What Licenses the Subject?

One of the main issues with respect to the clause structure of Turkish is the nature of the functional category which defines finiteness[149] and is responsible for the licensing of subject case. Four main approaches to this problem in Turkish have been proposed in the literature. These are: (i) AgrP approach, (ii) TP approach, (iii) ModP approach, and (iv) Theta-domain (VP internal) approach.

George and Kornfilt (1981) have proposed that finiteness is defined by Agr(eement) in Turkish as opposed to Tense. With respect to the licensing of subject case, George and Kornfilt (1981), Kornfilt (2001, 2007), Brendemon and Csató (1984) and Özsoy (1984, 2001) have argued that it is the Agr-element that licenses Nominative vs. Genitive Case. Keskin (2009) extends the role of agreement to the accusative case licensing in complements. Arslan (2006), on the other hand, holds that nominative case

[149] I consider finiteness as a property of clauses which marks them with a binary feature [+/- finite] indicating a set of semantic restrictions such as tense, aspect, modality or person. Which feature is responsible for finiteness in a universal understanding is still an open question given that neither tense, nor agreement is a universal category (Nikolaeva 2007). This implies that tense and agreement categories are language particular and not all languages have them in their grammars. Turkish, having both categories, has been considered as marking finiteness via these categories.

is licensed by T head. Aygen (2002) holds that Nominative is licensed by MOD(ality), a complex feature consisting of mood and epistemic modality. Öztürk (2005) assumes a framework in which NPs check for Case in-situ in their Merge position by the thematic head.

The syntax of embedded clauses is another important research topic of Turkish clausal architecture due to the (i) nominative-genitive case alternation observed in these clauses, and (ii) their nominalized nature.

Borsley and Kornfilt (2000), Kornfilt (2000a) propose that the syntax of non-finite clauses involve (a set of) verbal functional projections in the lower domain for theta reasons, which roughly corresponds to small *v* projection within Minimalism, and (a set of) nominal functional projections for agreement and subject case licensing in the higher domain of the clause, which corresponds to the C-T projection in Minimalism.[150] George and Kornfilt (1981), Özsoy (1986, 1990), Kornfilt (2001, 2004), Kelepir (2001), Kennelly (1992), Aygen (2002) have focused on the nominal nature of embedded clauses due to the fact that embedded predicates are nominalized and inflected with agreement markers from the nominal paradigm and with case markers. (4) below exemplifies an embedded clause in Turkish.

(4) Ben [Ali-nin dün sinema-ya git-tiğ-in]-i bil-iyor-um.
I Ali-GEN yesterday cinema-DAT go-NOM-3sg-ACC know-PROG-1sg
"I know that Ali went to the cinema yesterday"

There are three facts about the embedded clause in (4): (i) the subject *Ali-nin* is marked with genitive case, (ii) the embedded verb *git-tiğ-in-i* (that s/he went) is nominalized by the nominalization morpheme *'-DIK'* and marked with accusative case, and (iii) there is an agreement marker on the nominalized verb indicating the subject.

[150] Kelepir (2001) divides functional categories into two domains based on their morphosyntactic properties: (i) aspect/modality categories (Lower Domain) and (ii) tense(/Evid) categories (Higher Domain).

Kornfilt (2001, 2004) consider nominalized clauses as headed by an Agr element which licenses the genitive subject of the clause and has its own maximal projection, AgrNP. In order for Agr to license the genitive subject of the clause, it itself must be licensed via a thematic governor or a syntactic operator within the clause. Thus, Kornfilt (2001) explains the derivation of non-finite complement clauses with the presence of a thematic governor which licenses the Agr element which is then responsible for the genitive subject. In the absence of this thematic governor, i.e. in adjunct clauses and relative clauses, the syntactic operator such as a relative clause operator in Spec-CP position licenses the Agr element. Following Adger (2007), Kornfilt (2007) takes a slightly different position from her (2004) paper with respect to the licensing of genitive subject in nominalized clauses. According to her (2007) analysis, Agr is not projected as AgrP, but is located under the head position of FinP whose Spec position hosts the subject. Kornfilt's analysis becomes problematic considering the recent proposal in Minimalism according to which the C head is the locus of agreement (Miyagawa 2004, Chomsky 2005). Thus, rather than having its own maximal projection, Agr is merely a feature of C head. To this effect, Kornfilt (2004) points out that Agr in Turkish is different from its counterparts in Indo-European languages in that it functions as expressing categorical features rather than expressing φ-features as in the case of Indo-European languages.

Aygen (2002), on the other hand, proposes that complement clauses whose subjects are genitive case marked are complex NPs dominated by a CP and the genitive subject is licensed by the null head noun. Likewise, relative clauses are KPs dominated by a CP where the genitive subject is licensed by the head noun rather than the possessive agreement marker on the embedded verb. Adjunct clauses with genitive subjects are PPs with an overt P head whose complement is an NP whose head takes a

CP complement. Nominative subject adjunct clauses are CPs with an overt head and the nominative subject is licensed by the C head.

Kennelly (1992) distinguishes between the representations of non-finite complement clauses and finite direct complements in that the former lacks a CP layer while the latter does not. Non-finite complement clauses have a DP structure in which D head takes the IP as its propositional complement and the agreement marker acts as clausal determiner. There is no tense head present in these structures and the subject generated in Spec-VP position moves to Spec-DP. CP structure, on the other hand, involves a C head with Tense Operator and an IP complement with finite structure.

In non-finite subordinate clauses formed by *'-DIK', '-(y)AcAK'*, Kural (1994, 1998) assumes that 'K' is a C head, therefore there should be a CP projection.[151] The CP is in nominal nature unlike its Germanic or Romance counterparts and the genitive subject is licensed within the nominal CP.

6.2.1. TP Approach: Tº Licenses the Subject Case

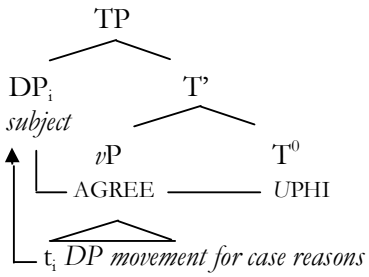
Kennelly (1992) proposes that the main clauses (finite clauses) are headed by a C head with a tense operator and in this way they differ from non-finite clauses which do not have a tense operator. The nominative subject is licensed via the tense operator in C head. Kennelly's (1992) account can be translated into feature inheritance proposal in that the locus of finiteness is the C head rather than T head alone. The tense operator of Kennelly (1992) can be considered φ-feature Agree initiated by the C head.

Arslan (2006) proposes that subject case in Turkish is licensed via φ-feature Agree relation with T head. The motivation for this is that arguments in their merge position are bound by the Existential Closure *à la* Diesing (1992) and referential arguments move to relevant Spec position for case checking. She argues that referential

[151] See also Göksel (1997) and Kelepir (2006) for further developments of the proposal.

subject moves out of its merge position to Spec-TP for case reasons. As for the non-referential subjects, they are licensed via long Distance Agree relation with T head, i.e. they do not have to raise to Spec-TP. Ulutaş (2006, 2008) proposes that the strong Agr feature present on T head attracts the subject NP to Spec-TP in matrix clauses as well as in relative clauses. Consider (5) where the subject is licensed via case checking with T head.

(5)



6.2.2. ModP Approach: Mood and Epistemic Modality Features as Subject Case Licensers

Aygen (2002) proposes that finiteness in Turkish and Turkic languages is in the C domain. Thus, T or Agr heads do not mark finiteness. Agreement is a C feature (cf. Miyagawa 2004, Chomsky 2005) from which T head inherits its φ-feature. She assumes a CP projection whose complement is a FinP. Finiteness head takes an AspP as its complement. Finite clauses vs. non-finite clauses differ in their feature complex. Mood feature in C head and epistemic modality feature in T head license the nominative case in Turkish. That is to say, C component in the clause structure has mood feature and I component has epistemic modality feature. The two together license the nominative subject. Aygen's (2002) analysis of nominative subject case checking indicates the role of C domain in subject case licensing as proposed in Chomsky (2005) and Hiraiwa (2005) where the downward feature percolation applies for subject case checking.

The first set of argumentation Aygen (2002) provides for her claim comes with the distribution of inflectional morphemes in root clauses, finite complement clauses and ECMs. That is, epistemic modality as well as deontic modality is allowed in root clauses (6a) and finite complement clauses (6b). In ECMs, on the other hand, epistemic modality is not allowed and the modal adverb *belki* (maybe) disambiguates the modal morpheme *'-(y)Abil'* (ability-possibility-permission) on the verb (6c).

(6) a. Kürşat gel-ebil-ir.
come-may/can-aorist
"Kürşat can/may come"
Aygen (2002:172) Example (11)

b. Ben [Kürşat gel-ebil-ir] san-dı-m
I-Nom -Nom come-epistemic modality/ability think-perf/past 1sg
Aygen (2002:176) Example (17)

c. Ben [Kürşat-ı belki gel-ebil-ir san-dı-m]
I-nom -acc maybe come-deon mood think-perf/past-1sg
"I considered Kürşat to probably come"
Aygen (2002:176fn 162) Example (i)

The distributional properties of epistemic modal morphemes show that the presence of epistemic modality is crucial for the licensing of nominative case in Turkish. Nominative case licensing feature has mood and modality at its core and functions as finiteness feature similar to Pesetsky and Torrego's (2001) *u*T feature. Thus, tense as the nominative case licensing feature is in fact a manifestation of a feature connected to C.

Second, Aygen (2002) provides an argument based on Lyons (1977) (cited in Aygen 2002), proposing that Tense is a kind of Modality and temporal interpretation is not tense based. She also argues that mood and modality are strongly related to each other in that they are syntactically interdependent.

6.2.3. AgrP Approach: Agr Defines Finiteness

George and Kornfilt (1981) propose that the head of a sentence in Turkish is Agr. Other arguments to this effect are also raised by Kornfilt (2001), Brendemoen and Csató (1984) and Özsoy (1984, 2001).

6.2.3.1. George and Kornfilt (1981)

George and Kornfilt (1981) were the first in generative theory to argue that finiteness is related to agreement rather than tense. The evidence for the argument that Agr is responsible for finiteness comes with the data below:

(7) Biz$_i$ san-a [t$_i$ içki iç-ti] gibi görün-dü-k.
we you-DAT alcohol drink-PAST appear-PAST-AGR
"We appeared to you to have drunk alcohol"
George and Kornfilt (1981)

In (7) assuming that *gibi görün-* (to appear) is a raising verb, the subject is assumed to raise from the embedded clause to the matrix clause. The problem is the fact that the subject is raised from a tensed clause, which is banned by the Tensed S Condition of Chomsky (1973). The second evidence for the argument that finiteness is not related to Tense in Turkish comes from ECM clauses, structures which have been used as evidence for the claim that Agr licenses nominative case. In Turkish, ECM clauses and finite clauses have the same tense morphology as can be observed in (8a-c):

(8) a. Sen-Ø gel-di-n
You-Nom come-perf/past-3 s.agr
"You came/have come"

b. Ben-Ø [sen-Ø gel-di-n] san-dı-m
I-Nom you come-perf/past-2sg think-perf/past-1sg
"I thought you came/have come"

c. Ben-Ø [sen-i gel-di-(n)] san-dı-m
I-Nom you-acc come-perf/past think-perf/past-1sg
Aygen (2002:5) Example (5-7) respectively

(8a) represents a finite clause, (8b) a finite complement clause and (8c) represents an ECM[152] clause with identical verb form with tense morphology. If tense is the relevant functional category for the nominative case licensing, we would not have the same verb form in these clauses. In other words, the subject of the embedded clause in (8c) is in accusative case, despite the presence of tense morphology on the embedded predicate. Note that the agreement marker can be optional in these structures in this dialect.

6.2.3.2. Brendemoen and Csató (1984)

Brendemoen and Csató (1984) analyze raising constructions in Turkish in light of the Binding and Case theories. They argue that the head of sentence in Turkish is Agr. Consider (9a-b).

(9) a. Seni öldü sanıyordum
(seni ACC öldü -AGR) sanıyordum
you died believed+I

b. *Sen öldü sanıyordum
(sen NOM öldü -AGR) sanıyordum
you died believed+I
Brendemoen and Csató (1984:91) Examples (4a) and (5) respectively

The grammaticality difference in (9a-b) is explained by means of case theory. (9b) is ungrammatical since the embedded verb does not assign nominative case to the embedded subject although it carries tense morphology. (9a), on the other hand, is grammatical since the matrix verb assigns accusative case to the embedded subject.

[152] ECM clauses have been discussed in Zidani-Eroğlu (1997), Özsoy (2001), Öztürk (2005), Meral, (2005), İnce (2005), Arslan (2006), Aygen (2006) among others. There are three different judgments with respect to the status of agreement marker in an ECM clause: (i) Dialect A has obligatory agreement in an ECM clause, (ii) Dialect B has obligatory non-agreement, and (iii) Dialect C has optional agreement in the same position.

6.2.3.3. Özsoy (2001)

Özsoy (2001) considers ECM clauses without the presence of agreement marker on the embedded predicate as small clauses. This predicts that the subject DP of the embedded verb fails to check case in the absence of agreement. Thus, it moves to the matrix clause to check accusative case with the matrix verb.

(10) Herkes [ben-i Ankara-ya git-ti] san-ıyor
everyone I-ACC -DAT go-PAST consider-PROG
"Everyone considers me to have gone to Ankara"
Özsoy (2001:217) Example (5a)

In (10) T head is present on the ECM clause predicate, but fails to check nominative case with the subject DP.

6.2.3.4. Kornfilt (2004)

Kornfilt (2004) proposes that Agr in Turkish is a syntactically active feature having its own maximal projection and primarily categorical features besides its φ-features. Nominal Agr with [+N, -V] features which is found in categorically hybrid gerund-like clauses is housed in a syntactically distinct position: *n*. Agr licenses genitive case from this position.[153] In order to license subject case, Agr itself must be licensed. If the

[153] According to Kornfilt (2004), embedded clauses are of two types differing from each other with respect to the verbal vs. nominal features of the functional projections of these clauses. Nominalized gerundive clauses as arguments: these clauses can function as arguments and adjuncts and are of two types: Factive/indicative and non-factive/subjunctive nominalized clauses. The genitive subject in both clauses is licensed via Agr on the embedded predicate. Factive clauses are categorically hybrid in the sense that they exhibit verbal functional projections in the lower architecture, nominal agreement in the higher architecture. The subject in these clauses appears as nominative in adjunct clauses and genitive in complement clauses.

(i) a. pro [Sen-in gel-diğ-in]-i bil-iyor-um. *Factive complement clause*
you-GEN come-NOM-2sg-ACC know-PROG-1sg
"I know that you have arrived."

b. [Sen gel-diğ-in için] sevin-di-m *Factive adjunct clause*
you come-NOM-2sg because get.please-PAST-1sg
"I am happy that you have arrived."

Non-factive clauses are fully nominal clauses which do not have such argument vs. adjunct asymmetry.

subject case is not licensed, default case is applied as a last resort operation. In Kornfilt's system Agr element in fully nominal clauses such as nominalized subjunctive clauses is domain internally licensed categorially and licenses the genitive subject.

The first point Kornfilt (2004) makes is the mobility of Agr within a clause indicating that it raises to *n* head in the course of the derivation.[154] The evidence for the mobility of Agr comes with free relatives in Turkish.

(11) a. [Geçen yaz ada-da gör-dük-*ler-im*] bu yaz
last summer island-LOC see-FNOM-PL-1.SG this summer
gel-me-di(-ler)
come-NEG-PAST(-3.PL)
"(Those) who(m) I saw on the island last summer didn't come this summer"
Kornfilt (2004) Example (12a)

b. [[Geçen yaz ada-da gör-düğ-*üm*] kişi-*ler*]
last summer island-LOC see-FNOM-1.SG person-PL
"The people who(m) I saw on the island last summer"
Kornfilt (2004) Example (12b)

Kornfilt (2004) notes that the order of morphemes between the inherent plurality marker *'-lAr'* and the agreement marker in (11a) is unexpected. However, the one in (11b) is expected given that the agreement marker (person+number feature of the

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(ii) pro [Sen-in gel-me-n]-i ist-iyor-um *Non-factive complement clause*
you-GEN come-NOM-2sg-ACC want-PROG-1sg
"I want you to come"

In subjunctive clauses, nominal Agr is domain internally licensed and in turn licenses the genitive subject. In indicative clauses, the clause is dominated by *n*P shell. Agr raises to *n* head and *n* head triggers a category shift, changes the gerundive clause into a fully nominal clause. Therefore, Agr is licensed and it licenses genitive case. Kornfilt assumes that *n*P can not dominate adjunct clauses. An adjunct clause is ModP, it cannot be a CP or AgrSP. Since there is no *n*P, Agr in adjunct clauses is not licensed and can not license the genitive on the subject. The subject case then is assigned default nominative/bare case.

[154] Kornfilt (2004) shows that Turkish does not allow infinitival relative clauses:

(i) *Ahmet Ayşe$_j$-ye [$_{DP}$[$_{CP?/DP}$ PRO$_j$ e$_i$ oku-*mak*] bir kitap$_i$] al-dı. *Infinitival relative*
Ahmet Ayşe-DAT read-INF a book buy-PAST
Intended reading: "Ahmet bought Ayşe a book to read"
Kornfilt (2004) Example (13)

Kornfilt assumes that infinitivals are not CPs but DPs. Since they are not CPs, they do not have a Spec position where an Operator can move to. However, there are other clauses which resemble infinitival clauses where relativization is possible. Kornfilt assumes that the corresponding nominal future marker *'-yAcAk'* in (13b) makes the clause categorically hybrid, and categorically hybrid clauses are CPs, hence relativization is possible.

embedded subject) precedes plurality (inherent feature of the head). This shows that Agr can occur on different heads.

Kornfilt (2004) proposes the following constraint in (12) which requires that N must be filled.

(12) *In Turkish complex NP/DPs (i.e. N-headed NPs with overt modifiers and/or specifiers), the N must be overtly filled.*

Kornfilt (2004) Example (19)

Let us see how the constraint in (12) works. (13a-b) exemplify the irrealis relatives where the head noun is present in (b) while it is absent in (a).

(13) a. *Ahmet Ayşe-ye [$_{DP}$[$_{CP}$ PRO e_i oku-*yacak*]] al-dı. *Irrealis relative*
Ahmet Ayşe-DAT read-FUT buy-PAST
Intended reading: "Ahmet bought Ayşe what (i.e. something) to read"

Kornfilt (2004) Example (18)

b. Ahmet $Ayşe_j$-ye [$_{DP}$[$_{CP}$ PRO_j e_i oku-*yacak*] bir $kitap_i$] al-dı. *Irrealis relative*
Ahmet Ayşe-DAT read-FUT a book buy-PAST
"Ahmet bought Ayşe a book to read"

Kornfilt (2004) Example (17)

Kornfilt (2004) notes that the ungrammaticality of (13a) follows from the fact that N position must be overtly filled. Note that neither the nominal head nor the agreement marker is present in the structure. In regular free relatives, the Agr of the modifier clause raises to *n* head, then into the N head position (11a). In irrealis relatives, on the other hand, the modifier clause has no Agr, thus nothing can raise to the head position. Hence, in the absence of the lexical N head and Agr, the structure is ungrammatical (13a).

Another case discussed in Kornfilt (2004) is the pleonastic use of Agr element in partitive constructions (14-15). In (14a-b) below the grammaticality contrast is due to the presence of Agr in (a) but absence of it in (b).

(14) a. Ali kadın-lar-dan iki-*sin-i* tanı-yor-du.
Ali woman-PL-ABL two-AGR-*ACC* know-PROG-PAST
"Ali knew two of the woman"
Enç (1991) Example (29) cited in Kornfilt (2004) Example (23a)

b. *Ali kadın-lar-dan iki(-yi) tanı-yor-du.
Ali woman-PL-ABL two-*ACC* know-PROG-PAST
Kornfilt (2004) Example (23c)

In these examples, Kornfilt proposes that Agr is inserted as a pleonastic to satisfy the constraint in (12). Accordingly, (14a) is grammatical given that the N position is filled by Agr and (14b) is ungrammatical given that there is no item which fills the N position. The motivation for this proposal comes with the examples with the classifier *tane* and exemplified in (15).

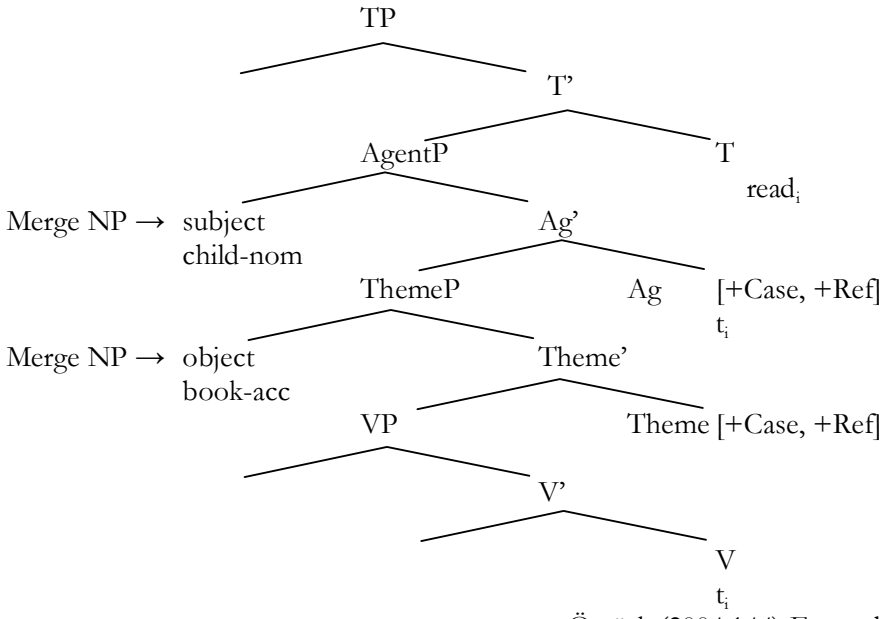
(15) Kitap-lar-dan iki *tane* al, geri-sin-i kutu-da bırak
book-PL-ABL *two* "item" buy remainder-AGR-(3.)ACC box-LOC leave
"Take (any) two of the books and leave the remainder[of the books] inside the box"
Kornfilt (2004) Example (28)

According to Kornfilt, *tane* in this example behaves as lexical N head, hence no Agr is required and the structure is grammatical. It can not have accusative marker because it is non-specific.

6.2.4. The Theta-Domain Approach

Öztürk (2005) argues that the subject in Turkish is not as high as argued to be so in the previous three approaches. That is to say, the subject is not licensed by Agree relation which is established between the subject NP/DP and T or Agr heads. Hence, there is no case driven Agree in Turkish. Instead, Öztürk (2005) argues that the subject is licensed at the Theta domain of the verb. In other words, NPs check Case in-situ in their Merge position by the thematic head. This position can be considered an instance of VP internal subject licensing. Consider (16) from Öztürk (2004:144).

(16)



Öztürk (2004:144) Example (18)

(16) represents the derivation of a sentence with a transitive verb. According to (16) above, the subject of the clause is merged in the Spec position of the functional projection AgentP. The complement NP is merged in the Spec position of the ThemeP which is another functional projection. Öztürk (2004, 2005) argue that NPs, i.e. subject and object NPs, are licensed in their merge positions without raising to higher positions where they establish Agree relation with functional heads.

The discussion on the distribution and the interpretation of the resumptives in Chapter 2 and 3 takes us to a position where we argue for a higher subject that is licensed in the C domain. Recall that in the cases where *kendisi* occurs in the subject position and follows a VP level adverb, *kendisi* is not interpreted as resumptive, but as an emphatic pronoun. I will argue in section 6.3 that the subject licensing in Turkish is connected to the C domain of the clause. In other words, the C domain in Turkish is actively participates to the subject licensing.

6.2.5. Arguments against Agr- as Head

Kural (1992), Aygen (2002) and Öztürk (2005) argue that Agr head can not be considered nominative case licenser in Turkish, but see also Gürer (in progress). Kural (1992) argues that the subordinate Agr is not an independent head. The evidence Kural discusses comes with the order of C head and Agr head on the verbal form of the subordinate clauses. Kural argues that 'K' in *'-DIK'* and *'-(y)AcAK'* morphemes is a C head and Agr follows this C head in a structure.

(17) *pro* [Ahmet-in koş-*tu-ğ-u*]-nu bil-iyor-um.
1SG A.-GEN run-*PAST-COMP-AGR*-ACC know-PRES-AGR
"I know that Ali ran"

Kural (1992:25) Example (58)

V-T-C-Agr order would be derived only if the Agr head moves to C independent of the V-T complex, a movement disallowed by Head Movement Constraint. Another argument against Agr as nominative case licenser comes with wh-scope facts. If Agr is an independent syntactic head and subject licensing is done via spec-head relationship, the subjects in both examples below should move to or merge at Spec-AgrP. This means that subjects are higher than CPs. However, wh-elements in complement position take unambiguous scope over the QP subjects in (18a-b).

(18) a. Herkes-Ø kim-i gör-dü-Ø
everyone-NOM who-ACC see-PAST-AGR
"Who did everyone see?"
a. For which x, x a human, everyone saw x?
b. *For every y, y a human, who did y see?

b. *pro* [herkes-in kim-i gör-dü-ğ-ün]-ü sor-du-m
1SG. everyone-GEN who-ACC see-PAST-COMP-AGR-ACC ask-PAST-AGR
"I asked who everyone saw?"
a. I asked for which x, x a human, everyone saw x?
b. *I asked for every y, y a human, who did y see?

Kural (1992:25) Example (61-62) respectively

Kural (1992) argues that wh- objects in (18) take unambiguous scope over the subject QPs. If the subject QPs were in Spec-AgrP position, they would take scope over the wh- items in Spec-CP at LF. I assume that there is a dialect split with respect to the scope relations between the wh- objects and QP subjects in that in Dialect B, both readings are available. This implies that Kural's argumentation is not on the right track and the subject can be higher than the wh- items in Spec-CP position. However, I point out that this does not necessarily present evidence for the existence of an Agr projection whose Spec position is filled by the subject.

Another problem for the AgrP approach has been noted in Aygen (2006) where it is pointed out that the embedded subject in an ECM clause can be in accusative case in spite of the presence of an agreement marker on the predicate. Consider (19).

(19) Biz [sen-i taşın-dı-n] san-dı-k
we you-ACC move-PAST-2SG consider-PAST-1PL
"We considered you to have moved"

Özsoy (2001:228) Example (37b)

Given that the agreement marker is present in on the verb of the ECM clause, the subject has to be licensed as nominative which is contrary to what we observe. Özsoy (2001) notes that the ECM'd DP skips over the Spec position of the AgrSP where it can check nominative case due to the presence of the overt agreement marker. Hence the structure is expected to be ungrammatical according to Shortest Move condition. Özsoy (2001) distinguishes between weak vs. strong agreement for Turkish. Accordingly, the AgrSP of the lower clause is weak and the accusative case marked DP first moves to the Spec-AgrSP of the lower clause to license the agreement but not to check its case. It then moves further to matrix clause to check its accusative case feature.

The claim that Agr licenses genitive case in subordinate clauses has problems too. (20a) includes an irrealis relative used as free relative and the structure is

grammatical. According to Kornfilt (2004), (20a) does not include an Agr, hence no Agr raising to *n* position. Since the head position is not filled, the structure should be ungrammatical which is contrary to the facts. This suggests that Agr is not crucial for the derivation of relative clauses.

(20) a. Ali anne-sin-e_j [[PRO_j *ec* yak-acak]] al-dı *irrealis free relative*
Ali mother-3sg-DAT burn-FUT buy-PAST
"Ali bought Ayşe something to burn"

b. Ali anne-sin-e_j [[PRO_j *ec*$_i$ yak-acak] odun$_i$] al-dı *irrealis relative*
Ali mother-3sg-DAT burn-FUT wood buy-PAST
"Ali bought Ayşe woods to burn"

However, it is also possible to suggest that the irrealis free relative in (20a) can be considered a lexicalized item rather than a clause given that it is not a productive case.[155] This is supported by the fact that the irrealis free relative does not allow adverbial modification. Thus, the lexicalized nature of the irrealis free relative does not seem to be a problem for Kornfilt's proposal.

The problem seems to be the complex NP consideration of irrealis free relatives. Normally, free relatives allow Agr following the nominalizer *'-DIK'* (21a). Irrealis free relatives allow the presence of Agr after the nominalizer *'-yAcAK'* as well. (21b) can be interpreted with potentiality reading which Kornfilt assumes irrealis free relatives to have.

(21) a. [Dün *ec* gör-düğ-üm], güzel bir film-di.
yesterday see-DIK-1sg good a movie-PAST
"(The one) I saw yesterday was a good movie"

b. [Yarın *ec* gör-eceğ-im] de güzel bir film ol-acak.
tomorrow see-YACAK-1sg too good a movie be-FUT
"(The one) I will see tomorrow will be a good movie too"

[155] I thank Meltem Kelepir (p.c) for this suggestion.

Thus, we can say that the assumption that irrealis relative clauses as free relatives do not have Agr might not be correct. Second problem comes with partitive structures. Kornfilt (2004) proposes that the presence of Agr is crucial in partitive structures in that in the absence of it the structure is not grammatical (22a). Since there is no Agr, a pleonastic element *tane* is inserted into the derivation and the structure becomes grammatical (22b). The problem comes with the pleonastic consideration of *tane*. If it were a pleonastic element, we would not have an example where *tane* is in the structure with an overt Agr element (22c).

(22) a. *Kitap-lar-dan iki-yi
book-PL-ABL two-ACC
"two of the books"

b. Kitap-lar-dan iki *tane*-yi
book-PL-ABL two item-ACC
"two of the books"

c. Kitap-lar-dan iki *tane-sin*-i
book-PL-ABL two item-3sg-ACC
"two of the books"

Kornfilt (2004) proposes that *tane* is inserted as a pleonastic to the derivation in (22b) to save the derivation in (22a), a structure which is ungrammatical without Agr. However, (22c) includes both *tane* and Agr element. Another problem comes with the following examples where the partitive reading is present.

(23) ?Kitap-lar-dan iki al-dı-m, defter-ler-den üç.
book-PL-ABL two buy-PAST-1sg notebook-PL-ABL three
"I bought two of the books and three of the notebooks"

There is no Agr or a pleonastic element on *iki* (two) in this structure and the structure is only marginally unacceptable. This indicates that the Agr is not crucial in partitive structures. Moreover, there are constructions in Turkish which seem to challenge the syntactically active status of Agr. Özsoy (1988) has introduced the examples such as (24)

which include a third person singular agreement marker on the embedded predicate which is nevertheless interpreted to be co-indexed with the first person singular subject.

(24) Ben [bisiklet-e bin-me-*sin*]-i bil-iyor-um.
I bcycle-DAT ride-NOM-3sg-ACC know-PROG-1sg
"I know how to ride a bcycle"

The third person agreement marker on the embedded predicate is expected to be co-indexed with the third person subject in the structure. However, there is no third person subject, either overt or *pro*, in the structure and the subject is interpreted with the first person singular. Özsoy (1988:303) proposes that the agreement marker *'-sI'* in (24) is base generated optionally as a sister of the verb to which it is attached in the surface structure. The phonetically null subject in the embedded clause is PRO controlled by the matrix subject.

According to Kornfilt's system, the embedded clause in (24) is a non-finite subjunctive clause functioning as argument of the main predicate. The Agr element in this sentence is expected to act as a case licenser or checker since it is syntactically active, i.e. it has potential case licensing capacity. However, this is contrary to the facts since the null subject of the embedded clause is not interpreted as the third person singular but as an empty category which is co-indexed by the matrix subject. *pro* in the subject position is expected to be licensed by the Spec-head relation in Kornfilt's system, but the apparent mismatch in φ-feature blocks it. Then, there might be long distance AGREE operation which licenses the empty category in the subject position.

This might suggest that Agr in subordinate clauses is syntactically inactive and merely occurs at PF as a morphological well-formedness condition. Consider the genitive subject in an adjunct clause (25).

(25) Sen-in gel-me-n için *adjunct clause*
you-GEN come-NOM-2sg for
In order for you to come

The Agr element within the clause is not licensed by a thematic governor since it is in an adjunct clause.[156] Moreover, there seems to be no operator such as a relative clause operator which licenses the Agr element. Note that this adjunct clause is different from (26) which is taken to be an instance of relative clause, hence the presence of the operator.

(26) Sen-in iste-diğ-in gibi bir araba bu.
you-GEN want-DIK-2sg like a car this
"This is just the car you want." Litt: "This car is just like the one you want."

Another problematic example comes with (27) where an instance of relativization is present, i.e. there is an operator in the structure.

(27) Bu iş-i [şart-lar elver-diğ-i ölçü-de] yap-acağ-ız
this job-ACC condition-PL be.available amount-LOC do-FUT-1pl
"We are going to do this job as conditions allow"

The embedded clause functions as the adjunct, thus there is no thematic governor to license the Agr element. However, since it includes a "comparative reading", we might assume that the structure includes an operator which possibly licenses the Agr element. Since the Agr element is licensed, it has to license genitive subject in the clause. However, the subject is in nominative case rather than genitive.[157]

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[156] Meltem Kelepir (p.c) points out that the embedded clause in (25) is the complement of the postposition *için* (for), hence a thematic governor is present in the structure. Then, the genitive subject is licensed. However, this explanation falls short when we consider the full range of postpositional adjunct clauses with a similar structure, but a nominative marked subject occurs inside the clause. Consider (i).

(i) [Sen / *sen-in gel-me-n]-e rağmen
you-NOM you-GEN come-NOM-2sg-DAT although
"Although you came"

In (i) the subject occurs in nominative case, an unexpected case in the presence of a thematic governor.

The mobility of Agr element which is used as evidence for the syntactically active status of Agr actually argues against the active status of Agr when we consider agreement markers on the relative clauses.[158] Agr appears on the embedded verb when the relative clause is headed, on the plural marker when it is not headed as shown in (28a-b).

(28) a. gördüğ-*üm* kişi-ler
see-DIK-1sg person-PL
"The people I saw"

b. gördük-ler-*im*
see-DIK-PL-1sg
"(Those) I saw"

If Agr is syntactically active for case checking, the intervention of the plural marker *'-lAr'* which Göksel (2006) considers as a pronominal form corresponding to the head noun would be problematic for the case checking between the subject and the Agr element.

6.2.6. Proposal 2: Subject Case is Licensed by the C Domain

This section discusses the subject case licensing in Turkish. First, I argue that it is not T head which licenses the subject. Second, I point out that Agr head licensing the subject

[157] A. Sumru Özsoy (p.c) points out that comparing (27) with (i) below, one can argue that the lack of genitive case on the embedded subject is due to the fact that the subject is [-animate].

(i) a. Bu iş-i Ayşe-nin iste-diğ-i ölçü-de yap-acağ-ız.
this job-ACC Ayşe-GEN want-DIK-3sg way-LOC do-FUT-1pl
"We will do this job like Ayşe would want"

b. ??Bu iş-i Ayşe iste-diğ-i ölçü-de yap-acağ-ız.
this job-ACC Ayşe want-DIK-3sg way-LOC do-FUT-1pl
"We will do this job like Ayşe would want"

I leave the issue for further investigation.

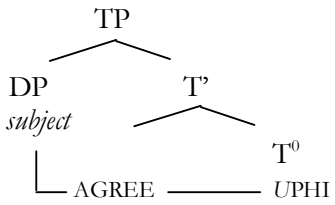
[158] Turkic languages show variation in the nature of the element on which the agreement marker appears. In Turkmen, relative clause agreement marker can appear both on the head noun and on the embedded predicate. In Kazakh, it can only appear on the head noun. See Johanson and Csató (1998) for the general agreement patterns observed in Turkic languages, Meral (2006c), Öztürk (2008, to appear) and Aydın (2007) for the agreement markers in relative clauses and Kelepir (2006) for the agreement markers in complement clauses.

is problematic in Turkish. Third, I propose that the idea that finiteness creates an opaque domain for grammatical operations such as binding is problematic in Turkish. Last, I propose that the subject case is licensed in the C domain in line with the recent proposals on subject case licensing in Minimalist Program.

6.2.6.1. Subject Case is not Licensed by T Head

As we have pointed out in the previous section, subject case has been argued to be licensed under φ-Agree between the T head and Spec-TP position (Arslan 2006, Ulutaş 2006:54). The following structure indicates this operation.

(29)



In the structure above, DP subject enters into an AGREE relation with the uninterpretable T feature in T head. Subject case is licensed and derivation converges. However, there are structures which challenge this operation. Consider (30a-b).

(30) a. Biz [sen taşın-dı-n] san-dı-k
we you move-PAST-2sg think-PAST-1pl
"We thought that you moved."

b. *Biz [sen taşın-dı] san-dı-k
we you move-PAST think-PAST-1pl
"We thought you moved"

Note that the embedded clauses in the (30a-b) are exactly the same except for the presence of the agreement marker in the (a) case. If the subject is licensed, i.e. case marked by T head, (b) case would also be grammatical in spite of the lack of the agreement marker. This implies that the Agr has an important role in subject licensing.

However, this is not true either as we have seen in section 6.2.5. Now, let us discuss additional evidence for the claim that Agr is not a subject case licenser.

6.2.6.2. Subject Case is not Licensed by Agr Head

Kornfilt (2004, 2007) argue that agreement has a primary role in Turkish clause structure in that it licenses the subject case. As I pointed out in the previous sections, this view is problematic in a number of respects which in turn show that Agr element is not an active feature in syntax for subject licensing. This section provides another set of data in order to show this.

Recall from the previous section that T head is not responsible for subject licensing. One might argue that Agr is involved in the set of uninterpretable features in T head (it is generated under T head or percolates down from the C head) and participates in subject licensing. However, quantifier subjects cause problem for this position. Consider (31a-d).

(31) a. Birimiz gel-di-ø
one.of.us come-PAST-3sg
"One of us came"

b. Birimiz gel-di-k
one.of.us come-PAST-1pl
"One of us came"

c. İkiniz sınav-ı geç-ti-ø
two.of.you exam-ACC pass-PAST-3sg
"Two of you have passed the exam"

d. İkiniz sınav-ı geç-ti-niz
two.of.you exam-ACC pass-PAST-2pl
"Two of you have passed the exam"

In (31a-d) the subject of the sentences is quantifier expressions. Note that in (a) and (c) cases the subject does not agree with the agreement marker on the predicate. In other words, there is a clear φ-feature mismatch between the Agr element and the subject it

licenses. Contrary to what is expected, the structures are grammatical. Likewise, in finite complement and ECM clauses the quantifier subject does not have to agree with the predicate. Consider (32a-d).

(32) a. [Hep*iniz* gel-di-*ø*] san-dı-m
all.of.you come-PAST-3sg think-PAST-1sg
"I thought all of you came"

b. [Hep*iniz* gel-di-*niz*] san-dı-m
all.of.you come-PAST-2pl think-PAST-1sg
"I thought all of you came"

c. ??[Hep*iniz*-i gel-di-*niz*] san-dı-m
all.of.you-ACC come-PAST-2pl think-PAST-1sg
"I thought all of you came"

d. [Hep*iniz*-i gel-di-*ø*] san-dı-m.
all.of.you-ACC come-PAST-3sg think-PAST-1sg
"I thought all of you came"

As in (31a-d), structures in (32a-d) have quantifier subjects. In (a) and (d) cases, the quantifier subject does not agree with the agreement marker on the embedded predicate. Note also that the ECM'd subject in (c) is awkward. This may be due to the fact that the ECM'd subject in the presence of the agreement marker on the embedded predicate shows dialectal variation in Turkish. Aydın (2008) independently analyses similar data and argues that the CP layer has a role in nominative case licensing.

(33) Ali dışında [*pro* hep-iniz] on-u haklı bul-uyor-*Ø / -sunuz*
Ali except [*pro* all-*2PL*.POSS]*3SG* he-ACC right find-PRES-*3SG / -2PL*
'All of you, except Ali, think that he is right.'

(34) [*Siz-in* hep-iniz] on-u haklı bul-uyor-*Ø / *-sunuz*
[you-GEN all-2PL.POSS] he-ACC right find-PRES-*3SG / *-2PL*
'All of you think that he is right'

(35) [*Siz* hep-iniz] on-u haklı bul-uyor **-Ø / -sunuz*
[you.NOM all-2PL.POSS] he-ACC right find-PRES **-3SG / -2PL*
'All of you think that he is right'

Aydın (2008:2) Example (1-3) respectively

For the singular and plural agreement markers on the predicate, Aydın (2008) provides different internal structures for the subject DPs where the nominative case is checked in the CP layer. According to his analysis, genitive subject in (34) is licensed by the movement of the genitive argument to Spec-DP, a movement which is driven by Principle of Greed by which N checks its referential feature. Singular agreement in (34) is licensed by φ-feature checking between Spec-TP position and C head. For the plural agreement in (33), he argues following Heim, Lasnik and May (1991) that the Operator in Spec-QP raises and adjoins to Spec-CP. Since the OP has *i*φ-features, plural agreement is possible. Aydın (2008) concludes that uninterpretable features on T and *u*φ-features on C may be taken to be a necessary ingredient in nominative case licensing in Turkish.[159] Note that Aydın's (2008) analysis of subject case licensing via Agree is consistent with Hiraiwa's (2005) analysis of C_2-T relation. However, Aydın (2008) does not implement C-to-T feature percolation in his analysis. Rather, he argues that *u*φ-features of C participate to subject case licensing.

Note further that the data in (33-35) can also be accounted by VP internal consideration of the subject. Accordingly, the subject stays in its VP internal position and does not establish an Agree relation with T or C heads in order to check case.

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[159] Aydın (2008) proposes that this explains why we have the grammaticality contrast below:

(i) Ali [hep-imiz-in gel-diğ-*in* / **-imiz*]-i gör-dü
Ali [all-2PL.POSS-GEN come-PART-*3SG.POSS* / **-2PL.POSS*]-ACC see-PAST
'Ali saw that all of us came.'

(ii) Ali [[hep-imiz gel-diğ-*i* /*-imiz*] için] çok kızgın
Ali [[all-2PL.POSS-NOM come-PART-*3SG.POSS* / *-2PL.POSS*] for] very angry
'Ali is very angry for we all came.'

Aydın (2007:2) Examples (4) and (5) respectively

Plural agreement in (i) is out given that complement clauses lack a CP layer (Aygen 2002). Plural agreement is available in (ii) given that adjunct clauses have a CP layer. I note that Aydın (2008) correctly points out the activity of C domain in subject licensing in Turkish. However, (i) has to be explained given that complement clauses do have a C domain in order to host operators. Without a C domain on the left periphery of a clause, we cannot account various A'- chains which occur in C domain.

Öztürk (2005) proposes that subjects remain in situ in their VP internal positions and are licensed by the thematic head in the event structure.

To summarize, this set of data shows the Agr element is not responsible for subject case licensing. In the next section, I explore how the opacity of clauses shows contradictory properties.

Finiteness in generative tradition is associated with a number of phenomena: (i) case licensing, and (ii) the formation of opaque domain for the syntactic operations such as binding, control and raising. I propose that finiteness in Turkish does not mark a clause as the domain for binding operations.[160] In other words, the distinction between tensed clauses and non-finite clauses as the former being an opaque domain and the latter not for binding is not attested in Turkish. In the next section, I will discuss this issue.

6.2.6.3. The problem with Finiteness as Marking Opaque Domains

This section presents some evidence against finiteness as creating an opaque domain for the grammatical operations such as binding. Consider (36) where the Condition A and B of Binding Theory has contradictory requirements.

(36) Ali_i [$ec_{i/k}$ Ankara-ya gitti] san-ıyor ama aslında başka yerde.
Ali Ankara-DAT went think-PROG but actually somewhere else-LOC
"Ali_i thinks that $he_{i/k}$ went to Ankara, but $he_{i/k}$ is actually somewhere else."
ec is a pro: ECM clause must be a binding domain to satisfy Condition B
ec is a null reflexive: ECM clause is not a binding domain to satisfy Condition A.

Anaphor binding into ECM clauses has been taken as evidence for the distinction between finite and nonfinite clauses. Özsoy (2001), Kornfilt (2007) propose that in the

[160] See Aygen (2000, 2003) for a discussion on the issue of finiteness creating a blocking category for scrambling. Aygen (2003) notes that the claim that finiteness of the clause makes it a blocking category is problematic with respect to the extraction facts.

presence of agreement, clauses become finite, hence opaque for anaphor binding. Consider (37a).

(37) a. *(Sen) [ben-i kendi-n-e yakın-ım] san-ıyor-sun.
you I-ACC self-2POSS-DAT close-1SG consider-PROG-2SG
"You consider me (to be) close to yourself."
Özsoy (2001:228) Example (36)

b. (Sen) [ben-i kendi-n-e / *san-a yakın san-ıyor-sun.
you I-ACC self-2POSS-DAT / *you-DAT close consider-PROG-2SG
"You consider me (to be) close to yourself/*you."
Özsoy (2001:222) Example (20a)

In (37a) the anaphor is not bound in its local domain, hence ungrammaticality arises. This indicates that the ECM clause acts as an opaque domain for binding. However, in (37b) binding of the anaphor is available. Hence, the ECM clause is not an opaque domain for binding. Özsoy (2001) solves this contradiction exhibited in ECM clauses with respect to binding with a proposal according to which the syntactic derivation of the two ECM clauses in (37a-b) is different. [DP Acc XP-Agr] constructions with VP and AdjP predicates are small clauses, hence opaque domains for binding as the ungrammaticality of (37a) with an anaphor shows. [DP Acc XP -Agr] with DP and PP predicates, on the other hand, are complex predicates and do not constitute opaque domains for binding, hence (37b) is grammatical.

The unavailability of anaphor binding in nominalized clauses has been discussed in Kornfilt (2007). What Kornfilt (2007) aims at showing is that nominalized clauses can be finite as well as direct complements in Turkish. Consider (38a-b).

(38) a. *Biz$_i$ [birbir-imiz-in$_i$ sınav-ı geç-tiğ-imiz]-i san-ıyor-du-k
we each.other-1PL-GEN exam-ACC pass-FN-1PL-ACC believe-PROG-PST-1PL
Intended reading: 'We believed that each other passed the exam.'
Kornfilt (2007:321) Example (28a)

b. *Biz$_i$ [birbir-imiz-in$_i$ sınav-ı geç-me-miz]-i isti-yor-du-k
we each.other-1PL-GEN exam-ACC pass-NFN-1PL-ACC want-PROG-PST-1PL
Intended reading: 'We wanted that each other should pass the exam.'
Kornfilt (2007:323) Example (32a)

Binding of the anaphor in these examples is not possible in the binding domain, hence the ungrammaticality. However, when we change the agreement marker on the embedded predicate into third person, which Kornfilt labels "weak", structures become grammatical. Consider (39a-b).

(39) a. Biz$_i$ [birbir-imiz-in$_i$ sınav-ı geç-tiğ-in]-i san-ıyor-du-k
we each.other-1PL-GEN exam-ACC pass-FN-3SG-ACC believe-PROG-PST-1PL
'We believed that each other passed the exam.'
Kornfilt (2007:321) Example (29a)

b. Biz$_i$ [birbir-imiz-in$_i$ sınav-ı geç-me-sin]-i isti-yor-du-k
we each.other-1PL-GEN exam-ACC pass-NFN-3SG-ACC want-PROG-PST-1PL
'We wanted that each other should pass the exam.'
Kornfilt (2007:323) Example (33a)

Kornfilt (2007) claims that the Agr in these examples is weak, hence the clauses are not finite, giving rise to transparency for anaphor binding. I propose however that this indicates nothing but the fact that Agr is not a syntactically active feature for subject case licensing. If Agr were "weak" in (39a-b) due to the subject-embedded verb mismatch, we would expect it to be "not weak/strong" in (40a-b) and the clause to be opaque for anaphor binding.

(40) a. Onlar$_i$ [birbir-leri-nin$_i$ sınav-ı geç-tiğ-in]-i san-ıyor-lar-dı.
they each.other-GEN exam-ACC pass-DIK-3sg-ACC believe-PROG-3pl-PAST
Intended reading: 'They believed that each other passed the exam.'

b. Onlar$_i$ [birbir-leri-nin$_i$ sınav-ı geç-me-sin]-i isti-yor-lar-dı.
they each.other-GEN exam-ACC pass-NOM-3sg-ACC want-PROG-3pl-PAST
Intended reading: 'They wanted that each other should pass the exam.'

The examples in (40a-b) are grammatical despite the presence of the agreement on the embedded predicate.[161] This suggests that Kornfilt's analysis does not seem to be on the right track. Moreover, the analysis in Kornfilt (2007) implies that Agr in (40a-b) is "weak" for marking a clause as finite, but "strong" enough to license the genitive subject. This seems to be another contradiction on her account. Moreover, another problem for Kornfilt (2007) comes with NPI licensing.

(41) a. [Kimse-nin geç gel-me-diğ-in]-i hatırla-dı-lar
nobody-GEN late come-NEG-FN-3SG-ACC remember-PST-3PL
'They remembered that nobody came late.'

b. *[Kimse-nin geç gel-diğ-in]-i hatırla-ma-dı-lar
nobody-GEN late come-FN-3SG-ACC remember-NEG-PST-3PL
'They remembered that nobody came late.'
Kornfilt (2007:324) Example (35a-b) respectively

Kornfilt (2007) proposes that NPI element in (41a) is licensed by the Negation marker on the embedded predicate, i.e. licensed in a local domain. (41b), on the other hand, includes a NPI element licensed by a non-local licenser i.e. the negation marker on the matrix predicate, a fact which causes the ungrammaticality. However, (41b) is judged to be grammatical by some native speakers and also examples below show that this is not always true.

(42) a. Kimse-nin gel-diğ-in-i hatırla-mı-yor-um
nobody-GEN come-NOM-3sg-ACC remember-NEG-PROG-1sg
"I remember that nobody came."

b. Ali-nin kimse-yi üz-düğ-ün-ü hatırla-mı-yor-um
Ali-GEN nobody-ACC make.sad-NOM-3sg-ACC remember-NEG-PROG-1sg
"I remember that Ali has offended nobody."

The examples in (42a-b) where the NPI element is licensed by a non-local element, the negation marker on the matrix predicate, are grammatical. The grammaticality of these

[161] However, this might be due to the "weak" nature of the 3rd person agreement marker as suggested to me by Meltem Kelepir (p.c).

examples indicates that Agr element does not mark a clause as an opaque domain for syntactic operations.

To conclude this section, I have shown that approaches which propose that subject licensing is done by Agr or T heads fail to account for the facts we observed. Instead of licensing subjects in the T domain, I will propose in section 6.4 that it is the C domain where subject licensing occurs in Turkish. However, the proposal does not follow the feature inheritance or feature percolation analyses of subject case licensing. Rather, I will argue for V-to-T-to-C as a result of which a head amalgamate is formed in the sense of Hiraiwa (2001). The clause structure I offer is based on Rizzi's (1997) proposal on the left periphery and Boeckx (2008). Now, let us discuss the reasons why we should have a C domain in Turkish.

6.3. CP Domain in Turkish

The presence of a C domain in the clausal architecture is not a controversial issue in generative theory. Both the GB era and Minimalism argued for a C domain in the clausal architecture where the A'- dependencies such as question formation, topicalization, relativization, focalization are licensed. The recent developments in Minimalist syntax have revealed that the C domain, phasal head C, is actually the locus of φ-features which are associated with subject licensing as well as topic, focus, wh-features which are associated with A'- dependencies.

This section argues for the presence of a C domain in Turkish for both theoretical and empirical reasons. Following and expounding on the initial insight of Kural (1992), I propose that main clauses are headed by C in Turkish due to the wh- and negation scope phenomena, possibility of post-verbal scrambling, V-to-T-to-C movement *à la* Kural (1992) but contra Aygen (2002), Ulutaş (2006), Akan (2009). As for the subordinate clauses, I propose that they are headed by C as well due to the

possibility of having a variable within the clause which must be bound by an Operator in the C domain. That is to say, all clauses in Turkish are CPs where the C domain is realized as ForceP, FocusP, TopP and FinP *à la* Rizzi (1997). There is at least one position in the C domain which hosts the empty operator whose main function is to bind the variable inside the clause.

6.3.1. Arguments for CP

6.3.1.1. Scope of *sadece* (only)

We propose that adverb scope data support the claim for the presence of CP in Turkish. Consider (43) from Aygen (2002).

(43) Sadece Kürşat-Ø Ankara-ya gid-ecek
Only -Nom -Dat go-fut
(i): "The only thing is that Kürşat will go to Ankara (nothing else will happen)"
(ii): "Only KÜRŞAT will go to Ankara (not Ayşe)"
Aygen (2002:87-88) Example (84)

In (43) the adverb *sadece* (only) is ambiguous between sentential scope and contrastive focus scope readings. In order for the adverb to have sentential scope, it has to be moved to sentence initial position and adjoin CP. However, when it is post verbally scrambled, the adverb loses its sentential scope reading according to Aygen (2002). This is exemplified in (44):

(44) Kürşat-Ø Ankara-ya gid-ecek sadece
-Nom -Dat go-fut only
"Kürşat will only GO to Ankara (he will not live there)"
Aygen (2002:88) Example (85)

Aygen (2002) argues that *sadece* has only contrastive focus scope over the VP, not over the full clause. If the verb were as high as C, we would expect clausal scope as well. I assume that there is a dialect split with respect to the clausal scope reading of the adverb

in (44). According to Dialect B, the adverb in (44) has a clausal scope reading as well, indicating that the verb is at C head. (44) is four way ambiguous: (i) contrastive focus scope over subject NP, (ii) contrastive focus scope over VP, (iii) sentential scope reading, and (iv) contrastive focus reading of ANKARA-YA.[162]

6.3.1.2. Scope of Negation

Another piece of evidence comes with the scope interactions of negation and quantificational elements. Consider (45) from Ulutaş (2006:45) where he argues for the availability of V-to-T movement.

(45) Ali bütün elma-lar-ı hızlı hızlı ye-me-di.
Ali all apple-PL-ACC rapidly eat-NEG-PAST
"Ali has not eaten all the apples rapidly"
*All > Neg Neg > all

Ulutaş (2006:45) Example (4)

There are two important facts about (45): (i) the position of the low level adverb (Cinque 1999) implies that the complement of the verb has moved out of the VP, (ii) negation marker takes unambiguous scope over the QP. Assume that the complement NP is adjoined to VP, the verb has to move to functional domain, T in order for the negation marker to c-command the QP, hence a wide scope reading for it as pointed out in Ulutaş (2006). Now consider (46):

(46) Ali bütün elma-lar-ı maalesef ye-me-di.
Ali all apple-PL-ACC unfortunately eat-NEG-PAST
"Ali has not eaten all the apples unfortunately"

In line with Cinque (1999), I assume that *maalesef* (unfortunately) is a TP level adverb in that it adjoins TP. This implies that the internal complement of the verb *bütün elmaları* (all apples) is out of its base position, adjoined to TP. Significantly, Neg on the predicate

[162] I thank Aslı Goksel for pointing out the fourth reading of this example.

scopes over the QP adjoined to TP functioning as the direct complement. We propose that the verb raises to C from where it c-commands the QP adjoined to TP.[163, 164]

6.2.1.3. V-to-I(T)-to-C

V-to-T-to-C implies that the verb moves all the way up to C domain for some syntactic reasons. It contradicts with the recent arguments in Minimalist syntax in that instead of raising to C head, features of C percolate down to T for case checking purposes. In this section, I argue for V-to-T-to-C movement rather than feature inheritance from C head based on two sets of evidence. First, as I pointed out in section 6.1.5 that feature inheritance seems to be superficial for Turkish, a language with a weak A- domain. Second, there are empirical reasons for the existence of V-to-I(T)-to-C in Turkish.

Kural (1992) proposes that the verb in Turkish moves all the way to C head and supports his argument with NPI licensing and case marking facts. The absence of CED effects is another argument which Kural presents in favor of V-to-T-to-C movement in Turkish.

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[163] The assumption that *maalesef* (unfortunately) is a TP level adverb finds support from the structure below where TP and VP level adverbs have a strict ordering within a clause.

(i) a. Ali bütün elma-lar-ı maalesef hızlı hızlı ye-me-di
Ali all apple-PL-ACC unfortunately rapidly eat-NEG-PAST
"Ali has not eaten all the apples unfortunately rapidly"

b. *Ali bütün elma-lar-ı hızlı hızlı maalesef ye-me-di.
Ali all apple-PL-ACC rapidly unfortunately eat-NEG-PAST
"Ali has not eaten all the apples unfortunately"

The grammaticality of (ia) as opposed to the ungrammaticality of (ib) indicates that the TP level adverb has to precede the VP level adverb in a sentence. Thus, *maalesef* (unfortunately) as a TP level adverb requires the direct complement to occur as a TP adjoined constituent. In order for the negation to c-command the direct complement, the verb must be at C position.

[164] See Kelepir (1999, 2001) for the idea that negation takes its scope in different ways in the clause structure.

6.3.1.3.1. NPI Licensing

The NPI licensing facts as discussed by Kelepir (2001) and Kural (1992) provide evidence to the fact that V moves to C in Turkish. Recall that it has been assumed in generative syntax that NPI elements must be c-commanded by negation at S-structure. Consider (47a-b).

(47) a. Kimse koş-ma-dı.
nobody run-NEG-PAST
"Nobody came."

b. Ahmet [kimse-nin koş-ma-dı-ğ-ın]-ı san-ıyor
Ahmet nobody-GEN run-NEG-PAST-COMP-AGR-ACC think-IMP
"Ahmet thinks that nobody has run."
Kural (1992) Examples (54a), (55b) respectively

In (47a-b) the NPI elements are the subject of the main clause and the subordinate clause respectively. The verb in both structures carries the negation marker and this negation marker must c-command the NPI in Spec-TP position. Therefore, the verb has to be at C position in order to c-command the NPI element in the subject position.[165]

6.3.1.3.2. Case Marking

Another argument for the claim that V is at C in Turkish is based on the fact that subordinate clauses in Turkish are case marked. Kural (1992) proposes that in order for the subordinate clause to be case marked, the verb complex must be in the highest position. Consider (48).

(48) Ahmet-Ø [*pro* ev-e koş-tu-ğ-um$_i$]-u bil-iyor-Ø
A.NOM 1SG home-DAT run-PAST-COMP-AGR-ACC know-PROG-AGR
"Ahmet knows that I ran home"
Kural (1992:22) Example (48)

[165] Note once again that the VP internal subject option does not require verb be that high in the sentence. Assuming that the subject is VP internal in (47a-b), negation can c-command the VP internal subject from its original position, i.e. Neg head position. See Öztürk (2005) for a discussion.

In (48) the verbal complex V-T-C must be high enough to be accessible to case morphology. This would not be possible if the verbal complex were not at the highest head position and there were a head between the final position of the verb and the head of the XP that is case marked by the higher verb. Note that this also assumes that there is a C head to which the verb moves. Kural analyses the nominalization morpheme '*-DIK*' as [DI-K], where *'-DI'* corresponds to the past tense marker and '-K' to the overt C head.

6.3.1.3.3 Absence of CED Effects

The absence of Condition on Extraction Domains (CED) effects is also given as evidence for V at C in Turkish. Kural (1992) notes that only the verb which moves to C would govern the subjects in Spec-TP and nullify the CED effects (Huang 1982). CED effects can be characterized as a condition which says movement cannot cross a barrier, where an XP is a barrier if and only if it is not in a complement position.

(49) [OP_i [Ahmet-in t_i git-me-si]-nin ben-i üz-dü-ğ-ü] ev
A.-GEN go-INF-AGR-GEN I-ACC sadden-PAST-COMP-AGR house
"The house [which [that Ahmet went to t] saddened me]"
Kural (1992:23) Example (52)

According to Kural, the structure in (49) is grammatical since the relativized verb in C position (relative clause CP) head-governs the subject position and allows the movement of the empty operator which is part of the subject. Then, the subject CP or NP is no longer a barrier for movement.[166]

[166] This seems to be a valid argument for the claim that the verb is at C position. However, in those cases in which the target of relativization is a complement as in (i), rather than an adjunct as in (49), the structure is ungrammatical.

(i) *[OP_i [Ahmet-in t_i oku-ma-sın]-ın ben-i üz-düğ-ü] kitap
Ahmet-GEN read-NOM-3sg-GEN I-ACC make.sad-DIK-3sg book
"The book which that Ahmet read saddened me"

6.3.1.4. Post Verbal Scrambling in Matrix Clauses

Post-verbal scrambling can be considered another argument for the CP projection, which is based on the assumption that post-verbally scrambled constituents are CP adjoined. Kural (1992) holds that post-verbal scrambling is allowed as CP adjunction in Turkish.[167]

(50) [CP [CP Ahmet-Ø t_i git-ti-Ø] okul-a_i]
A.-NOM go-PAST-AGR school-DAT
"Ali went to school"

Kural (1992:23) Example (50)

The argument is based on the claim that the verb must be at C position in order to allow its argument to be post verbally scrambled. Kural (1992) notes that moving the verb into the highest functional head would force post-posed constituents to unambiguously adjoin the highest projection (cf. Aygen 2000:68). However, VP internal subject option would also work in this case. Then, rightward adjunction to CP is motivated not by verb movement to the higher positions but the lack of EPP effects in a given language. Öztürk (to appear) argues that rightward adjunction is not a uniform phenomenon in that while some languages exhibit right adjunction option (movement), others employ deletion under identity option according to which the post verbally scrambled constituent belongs to a second sentence which is subject to the phonological deletion. Uyghur is the example for the former and Khalka Mongolian is for the latter. Öztürk (to appear) also argues that the presence of EPP regulates the Spec position hosting the subject on the left, and then there is no Spec position on the right which possibly hosts the right adjoined post verbally scrambled constituent. But, if there is no EPP effect and

(i) suggests that V-to-C movement does not actually nullify the CED effects, complex NP in the subject position still acts as a barrier for extraction. This might be due to the fact that adjunct head in (49) is late inserted to the derivation, whereas the complement head in (i) is merged with the most deeply embedded verb in the course of derivation. I leave the issue for further investigation.

[167] I do not discuss whether rightward movement is allowed or not universally. See Antisymmetry Theory of Kayne (1994) and Kelepir (1996) for its implications on Turkish syntax.

the subject is VP internal, then the Spec position on the right becomes available for post verbally scrambled constituents to move.[168] This is what happens in Uyghur and Turkish. In the absence of EPP which requires the subject occurring in a Spec position on the right, post verbally scrambled constituents occur in the Spec position which is to the right of the functional heads.[169]

6.3.2. CPs in Subordinate Clauses

6.3.2.1. Arguments against Subordinate Clauses as CPs

This section discusses the arguments against the presence of CPs in embedded clauses. The arguments come mainly from Kennelly (1992) who argues that non-finite complement clauses are not CPs but DPs. Note that scrambling out of non-finite clauses, embedded question formation and long distance licensing of the NPI elements have been discussed in the literature as indicating whether embedded clauses in Turkish have a CP layer or not.

6.3.2.1.1. Kennelly (1992): Turkish Subordination:

[-Tense, -CP, +Case]

Kennelly (1992) argues that non-finite complements are DPs, but direct complements are CPs in Turkish. She focuses on the differences between finite subordinate clauses and non-finite ones. The first difference she notes is the availability of scrambling in finite clauses=CPs but the lack of it in non-finite clauses=DPs, a fact which has been noticed by George and Kornfilt (1981) and also discussed in Aygen (2002).

[168] Kural (1993) argues that NP movement, i.e. scrambling is an instance of A'- movement. See also Erguvanlı-Taylan (1984), Kural (1993), Aygen (2002), Öztürk (2005), Özsoy (2005, to appear). See also Göksel (2006b) for the non-movement option in scrambling, Uygun (2006) for scrambling of bare nominal objects, Akan (2009) for the issue of whether scrambling involves an A- movement or A'- movement. Aygen (2002) argues that local scrambling is an instance of EPP driven A- movement while long distance scrambling is a Focus driven A'- movement.

[169] Note that Öztürk (to appear) supports the lack of EPP effect for Uyghur with a number of independent phenomena such as impersonal passives, subject raising and scope facts.

(51) a. pro [Can t_i aldı] kitab$ı_i$ sandım
took book-ACC I.believed
"I believed that Can took the book"

b. *pro [Can'ın t_i aldığın-]-ı kitab$ı_i$ sandım
GEN3 take-[- FUT]-AGRN3-ACC book-ACC I.believed
"I believed that Can took the book"
Kennelly (1992:64-65) Examples (13b) and (11b) respectively

According to Kennelly (1992), the ungrammaticality of (b) suggests that there is no CP layer in non-finite clauses for the post-verbal NP to adjoin, hence the ungrammaticality. However, (a) is grammatical since the CP layer is present for the post verbally scrambled NP to adjoin. Note that Kennelly assumes that the adjunction site for the object NP is the CP, i.e. constituents right adjoin the CP. For the same grammaticality difference, George and Kornfilt (1981) argue that gerunds are NPs but finite direct complements are not. Thus, the unavailability of scrambling in (51b) follows from this. Note that George and Kornfilt (1981) consider non-finite complement clauses (*'-DIK'* and *'-MAK'* clauses) as gerunds. However, Özsoy (1999) argues that *'-DIK'* clauses are factive noun complements.

The second argument of Kennelly (1992) comes from embedded question data. She proposes that non-finite clauses lack a scope determining Q feature, hence no CP layer to host it is needed. Finite clauses, on the other hand, require a CP domain to host a scope bearing Q element *'-mI'*.

(52) a. pro [$_{DP}$ Can'ın gidip gitmediğin-]-i merak ed-iyor-um.
GEN3 go-'Ip' go-NEG-[-FUT]-AGRN3-ACC I.wonder
"I wonder if Can (has) left"
Kennelly (1992:67) Example (16)

b. pro [Can gitti] mi merak ed-iyor-um.
went Q I.wonder
"I wonder if Can (has) left"
Kennelly (1992:68) Example (18)

According to Kennelly, (52b) includes a Q element whereas (52a) does not. However, I propose that there is no reason why the structure in (a) does not have a scope bearing Q element while (b) has one given that both structures have question interpretation. In other words, the phonetic non-realization of the Q element does not mean that it is syntactically not present in the structure.[170] Since both structures have question interpretation, I propose that there should indeed be a CP layer where the Q operator is hosted.

The last argument Kennelly (1992) provides is about the negation marker in the presence of a NPI element. An NPI in an embedded clause (non-finite) can be licensed either by the negated embedded verb or by the negated matrix verb (53a-b). In finite clauses, on the other hand, since there is a CP layer, long distance binding will be blocked given that the scope of negation is blocked within a CP clause (54a-b).

(53) a. pro [$_{DP}$ Kimsenin sigara iç*me*diğin-]-i söyledim.
nobody-GEN3 smoke-*NEG*-[-FUT]-AGRN3-ACC I.said
"I said that nobody smoked"
Kennelly (1992:71) Example (27a)

b. pro [$_{DP}$ Kimsenin sigara içtiğin-]-i söyle*me*dim.
nobody-GEN3 smoke-[-FUT]-AGRN3-ACC I.didn't.said
"I didn't say that anybody smoked"
Kennelly (1992:70) Example (27b)

(54) a. pro [Kimse sigara iç*me*di] zannediyorum.
nobody didn't smoke I.believe
"I believe/think that nobody smoked"
Kennelly (1992:72) Example (29a)

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[170] The support comes with the embedded yes-no question formation in Turkish. Note that [-(y)Ip -mAdIğI] structures denote question interpretation in the absence of a question marker. The question interpretation forces the reduplication of verb at PF, a fact which can be considered as morphosyntactic evidence for question interpretation. I thank A. Sumru Özsoy (p.c) for bringing this fact into my attention. See Özsoy (2009) for a detailed discussion.

Moreover, as for the phonological reality, intonation has been observed to type question interpretation in Turkish (Özsoy 1998, 2009, Göksel et. al. 2007). Also, Görgülü (2006) and Keçeli (2009) have observed phonological differences between real questions and rhetoric questions in Turkish.

Also, the status of *'-mI'* as a question marker is questionable given that it acts more like a focus marker. See Kelepir (2001:34-5) ff. 16 for a discussion.

b.*pro Kimse sigara içti zannet*mi*yorum.
nobody smoked I.don't.believe
"I don't believe/think that anybody smoked"

Kennelly (1992:72) Example (29b)

In (53a-b) the negation marker is hosted on the embedded and matrix verbs respectively, showing that there is no CP layer which would block long distance binding of NPIs by matrix negation. In (54a-b), on the other hand, there seems to be a CP layer which blocks long distance binding of the NPIs as the ungrammaticality of (54b) indicates. However, as Kornfilt (1984) and Kelepir (2001) observe, long distance licensing of the NPI is possible if the embedded subject of the finite clause in (54a-b) is marked with accusative case. Also, Kelepir (2001:172-3) points out that factive embedded clauses disallow long distance licensing of NPIs. These would require Kennelly (1992) to propose different clause structures for factive and non-factive embedded clauses.[171] Kelepir (2001:169) points out that the syntax of embedded clauses is not a mere determining factor for long distance licensing of the NPI, the semantics of the verb plays a role in NPI licensing too. Moreover, the following examples create problems for Kennelly (1992).

[171] Kennelly considers structures in (53a-b) as involving Neg raising, i.e. argues that Neg raising is possible with non-finite clauses, but not possible with finite clauses. However, Meltem Kelepir (p.c) pointed out to me that (53a-b) cannot be considered as Neg raising constructions. For a construction to have a Neg raising property, the matrix negation should be interpreted to have scope in the embedded clause. Consider the following examples in (ia-b).

(i) a. I do not think it will rain tomorrow.

b. I think it will not rain tomorrow.

One can roughly say that (ia) and (ib) are logically equivalent. However, this is not possible with any matrix verb. Consider (iia-b).

(ii) a. I did not say it will rain tomorrow.

b. I said it will not rain tomorrow.

The construction in (iia) does not involve Neg raising since (a) and (b) are not logically equivalent. See Horn (2001:308) for a detailed discussion of Neg raising phenomenon.

(55) a. Kimse sigara iç-me-di diye düşün-üyor-um.[172]
nobody smoke-NEG-PAST COMP think-PROG-1sg
"I think that nobody smoked"

b. ?Kimse sigara iç-ti diye düşün-mü-yor-um
nobody smoke-PAST COMP think-NEG-PROG-1sg
"I don't think that anybody smoked"

In (55a-b) the embedded clause is introduced by an overt C head, hence the presence of a CP layer. Given that (55b) is grammatical; Neg raising seems to be possible although a CP layer is present.

6.3.2.2. Argument against Kennelly (1992): Aygen (2002)

Aygen (2002) notes that scrambling within a non-finite clause is available, contrary to what is observed in Kennelly (1992).

(56) Ben-Ø [Kürşat-ın t_i kır-dığ-ın]-a cam-$ı_i$ inan-ıyor-um.
I-Nom -Gen break-asp-agr-*Dat* glass-*Acc* believe-prog-1sagr
"I believe that Kürşat broke the glass"
Aygen (2002:111) Example (108)

The grammaticality of this example requires the presence of a CP layer for the post verbally scrambled NP, given that this sort of movement is of A'- movement type *à la* Kural (1992). Aygen (2002) argues that the restriction on the clause internal scrambling is due to the fact that direct complements are not case marked. Consider the following examples:

(57) a. [yazar-lar-ın viski-yi iç-tik-ler-in]-i_i *herkes* t_i bil-iyor.
author-pl-Gen whiskey-acc drink-GER-plu-agr-Acc everyone know-prog
"Everybody knows that the authors drank the whiskey" ("everbody" is focused)
Aygen (2002:98) Example (96b)

[172] We assume that *diye* (as/for) is a C head rather than a postposition due to the fact that clausal postpositions in Turkish assign an overt morphological case to their complements as exemplified in (i). *Diye*, on the other hand, does not behave in this way.

(i) [Ali gel-diğ-in-e göre] başla-yabil-ir-iz.
Ali come-NOM-3sg-DAT according to start-ABIL-AOR-1pl
"Since Ali has come, we can start"

b. [*yazar-lar viskiyi iç-ti]$_i$ herkes t_i sanıyor
author-plu whiskey-acc drink-past everyone believe-prog
Aygen (2002:99) Example (96c)

According to Aygen (2002), this does not suggest anything for the inner structure of these clauses, but about the presence or the absence of an outer nominal layer. Aygen notes that what George and Kornfilt (1981) call gerunds and direct complements have the same distribution in that both types are not allowed in the subject position of a finite verb but allowed in passive structures. Consider (58a-d).

(58) a. [*Kürşat-ın gel-diğ-i] biz-i şaşırt-tı
-Gen come-asp-poss we-acc surprise-past
Intended reading "That Kürşat came surprised us"
Aygen (2002:103) Example (99a)

b. [*Kürşat gel-di] biz-i şaşırt-tı
come-past we-acc surprise-past
*"Kürşat came surprised us"
Aygen (2002:104) Example (101a)

c. [Kürşat-ın gel-diğ-i] bil-in-iyor
-Gen come-asp-poss know-pas-prog
"That Kürşat came is known"
Aygen (2002:103) Example (99b)

d. [Kürşat gel-di] san-ıl-ıyor
come-past think-pas-prog
Aygen (2002:105) Example (101b)

Aygen (2002) assumes that *'-DIK'* clauses and direct complements have the same distribution, thus *'-DIK'* clauses are not gerunds because gerunds are allowed in the subject position as (59) indicates.

(59) [Kürşat-ın gel-me-si] / [Kürşat-ın gel-iş-i] biz-i şaşırt-tı.
-Gen come-INF-agr$_N$ -Gen come-Ger-agr$_N$ we-acc surprise-Past
"Kürşat's coming / the manner of <u>Kürşat's</u> coming surprised us"
Aygen (2002:104) Example (100a-b)

6.3.2.3. Arguments for CP in Subordinate Clauses

Further support for the proposal that subordinate clauses are CPs is provided by (i) the availability of having a variable like empty category within the clause, irrespective of being a complement, adverbial or relative clause, (ii) the availability of scrambling.

6.3.2.3.1. The Need for an Operator

In Chapter 3 I discussed the need for the presence of an operator in the clause structure which binds the variables. Chomsky (1982) and Aoun and Li (1993, 2003) point out that the variables must be bound by an operator in the C domain. In Chapter 5 I proposed that null subjects, null objects and anaphors are interpreted as variables. The presence of variables and their licensing requires a C domain from where the operators form chains for the licensing of these categories.

The need for an operator is most obvious in relative clauses. Following Aoun and Li (2003), I assume that relative clauses are operator-variable structures where a variable is bound by an operator in a higher position. Aoun and Li (2003) argue that the Operator which is merged within the clause moves to the Spec-CP position to bind its copy, which is a variable, otherwise the vacuous quantification obtains. However, one might argue that relative clauses in Turkish can be analyzed as a formation of a participle verb, rather than a syntactic unit having its own clausal architecture. I propose that relative clauses indeed have a clause structure given that verb's theta features are active. That is to say, the external and the internal arguments of the predicates check their theta and case features. Moreover, locative adjuncts can be present in relative clauses. These are exemplified in (60-61).

(60) [*OP* ..... *ec* gör-düğ-üm] *adam*
see-DIK-1sg man
"The man that I saw"

(61) a. [*OP* .... *ec* $_{\text{AGENT}}$ koş-an] *adam*
run-REL man
"The man who runs"

b. [*OP pro* $_{\text{AGENT}}$..... bahçe-de *ec* $_{\text{THEME}}$ gör-düğ-üm] *adam*
garden-LOC see-DIK-1sg man
"The man that I saw in the garden"

6.3.2.3.2. Post-verbal Scrambling in Subordinate Clauses

The availability of post-verbal scrambling also supports the presence of a CP projection in subordinate clauses given that post verbally scrambled constituents are CP adjoined *à la* Kural (1992). Consider (56) repeated here as (62).

(62) Ben-Ø [Kürşat-ın t_i kır-dığ-ın]-a cam-ı$_i$ inan-ıyor-um.
I-Nom -Gen break-asp-agr-*Dat* glass-*Acc* believe-prog-1sagr
"I believe that Kürşat broke the glass"
Aygen (2002:111) Example (108)

I assume that non-finite clauses are CPs with a null head taking an AspP as their complement. Following Kennelly (1992), I propose that non-finite clauses do not have tense head (cf. Kelepir 2006), hence no TP. Consider (63a-b).

(63) a. Ali-nin yarın Ankara-ya gid-eceğ-in-i bil-iyor-um.
Ali-GEN tomorrow Ankara-DAT go-NOM-3sg-ACC know-PROG-1sg
"I know that Ali will go to Ankara tomorrow"

b. Ali-nin yarın Ankara-ya git-tiğ-in-i bil-iyor-um.
Ali-GEN tomorrow Ankara-DAT go-NOM-3sg-ACC know-PROG-1sg
"I know that Ali will go to Ankara tomorrow"

The predicate is nominalized by different markers in (63a-b) and both of these markers are compatible with the adverb *yarın* (tomorrow). This suggests that there is no Tense in non-finite clauses, but the nominalization markers involve an aspectual feature. For '-

DIK' and *'-(y)AcAK'* suffixes in (63a-b), Kelepir (2006:88) proposes that *'-DIK'* is a suffix not really specified for tense, and *'-(y)AcAK'* is not a future tense marker.[173, 174]

6.4. Proposal 3: Left Periphery as the Locus of Licensing in Turkish

The proposal I make for the clausal architecture of Turkish is based on the facts which have been observed so far. First of all, I point out that the licensing mechanisms I offered in the previous chapters require a rich left periphery, i.e. the presence of Force, Topic, Focus and Fin heads which have their own maximal projections. This implies that functional heads are endowed with uninterpretable features which must be checked via Internal Merge or External Merge in the sense of Chosmky (2005, 2007). However, as I pointed out in section 6.1.5 those features are not present on the phasal head C from which feature inheritance applies. Rather, Fin, Top and Force heads are endowed with these features.

Second, following the idea that a single syntactic category marking finiteness is problematic, I point out that Turkish enables both a head complex in Fin head position and an empty operator in Spec-FinP position to license the nominative subject. As for the genitive subject, I hold following Aygen (2002) that the (null) head noun is responsible for Genitive subjects. Third, I hold that agreement is more likely to be dealt with at PF interface rather than in syntax proper. Now, let us consider each proposal in detail.

[173] Kelepir (2006:88) proposes that *'-DIK'* has no specific time reference. However, this does not mean that there is no tense category, i.e. T head in the clause structure of nominalized complement clauses. Following Kural (1994) and Göksel (1997), Kelepir (2006:91) argues that *'-DIK'* is a complex form. *'-DI'* is the phonological realization of a defective Tense head with a T feature but no tense value, and *'-K'* is a complementizer.

[174] See Erguvanlı-Taylan (1988), Aygen (2002) and Kelepir (2006) for a detailed investigation of the semantic properties of these suffixes in complement clauses.

6.4.1. Left Periphery

This section argues that the left periphery of the clause structure is crucial for the explanation of a number of phenomena in Turkish including resumption, binding, subject licensing etc. I use the term "Left periphery" as it appears in the literature on the C domain. Note that Turkish puts syntactic heads on the right while phrasal movement targets the left nodes in the clausal architecture. Within Principles and Parameters approach to language, the left periphery of the clause is argued to convey information about the semantic force, i.e. whether the sentence is a question or an affirmative sentence, of the sentence. CP is the maximal projection which is argued to represent the left periphery of the sentence and is a non-argument position, i.e. no theta role is assigned. Question formation, topicalization, focalization, relativization, clefting, dislocation and adjunction are different phenomena which are attributed to the left periphery of a clause where the CP is argued to be endowed with relevant features, adjunction sites, overt or covert operators.

Rizzi (1997) is an influential work on the left periphery of the clause structure where he suggests that the left periphery (CP) is split into a number of maximal projections for distinct grammatical phenomena such as topicalization, focusing etc. (64) below shows the proposal for the functional categories in the so-called CP-domain in Rizzi (1997).

(64) *The structure of CP in Rizzi (1997)*
[ForceP [TopicP [FocusP [FinitenessP]]]]

(64) represents the structure of the left periphery proposed in Rizzi (1997). The functional projections in (64) are argued to host the focused, topicalized materials. Rizzi (1997) points out that ForceP and FinitenessP are the core projections of the C layer. TopP and FocusP, on the other hand, are projected when they are needed, when there

are materials which are topicalized and focalized. Given that these materials in the C domain can be replicated, Boeckx (2008:131) points out that the CP domain can be represented as (65).

(65) [(Top/FocP) [ForceP [(Top/FocP) [FinP [(Top/FocP)]]]]]
Boeckx (2008:131) Example (23)

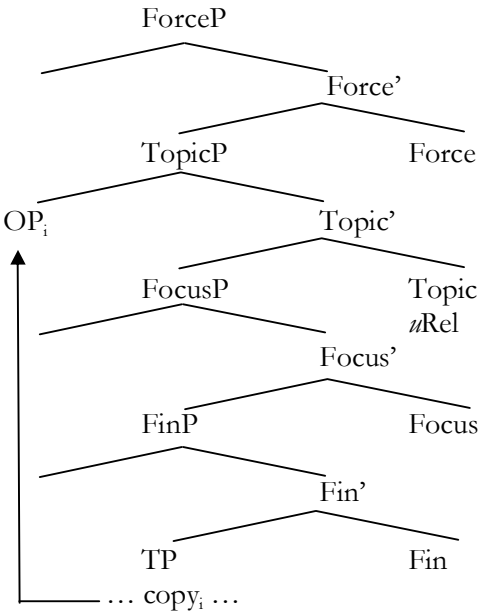
What is important for (65) is that it allows the duplication of the material in C domain. That is to say, there might be more than one topicalized or focused constituents in the left periphery. For instance, Turkish allows the topic use of both null subjects and null objects. Thus, it is possible to hold that materials with topic function are licensed in these projections. Recall that in Chapter 5, I argued that null arguments receive variable reading and provided an analysis for their licensing. Here, I would like to suggest that it is the Operator in the left periphery which is responsible for this licensing. This suggestion is based on the assumption that functional categories in the left periphery such as Topic head have uninterpretable features, *u*Rel, which is checked by the empty operator(s).[175, 176]

I offer two strategies for the Operator: (i) The Topic head has *u*Rel feature and attracts the empty operator which originates in the T or V domains, consequently the *u*Rel feature of the probe is checked by Move, i.e. Internal Merge. (ii) The Operator is merged in Spec-TopP position in order to avoid vacuous quantification. The first strategy is responsible for the relative clause formation, binding and PRO chains. The second strategy licenses the null objects. These two are exemplified in (66) and (67).

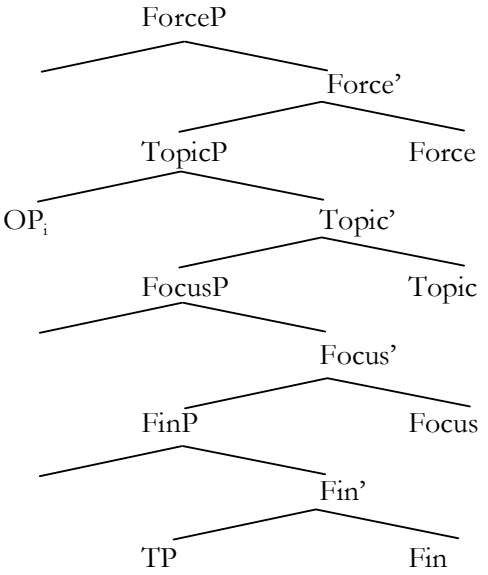
[175] See Hiraiwa (2005) for an account of the feature composition of C for various A'- dependencies.

[176] For the presence of operators in C domain, Boeckx (2008) assumes that the functional heads in the C domain have a lexical v feature which invokes operators in the Spec positions. I assume that the presence of a variable requires an operator in the C domain for licensing reasons. Admittedly, one may question the motivation behind the presence of the operators in the clausal architecture. I leave the issue for further investigation.

(66)



(67)



In (66) the *u*Rel feature of the Topic head attracts the Operator inside the clause. The Operator is responsible for heading the operator-variable chain in relative clauses. However, note that materials with topic function, i.e. overt or covert arguments, can be licensed in the left periphery. In other words, topicalized constituents in scrambling move to the left periphery. Thus, TopP seems to work in two ways: (i) hosting operator-

variable chains, and (ii) hosting topicalized constituents.[177] In (67) the Operator is merged in the Spec position of the TopP. The Operator in Spec-TopP position is responsible for the null arguments inside the clause which receive bound variable interpretation.

I follow Adger (2007) and Kornfilt (2007) for the idea that clausal architecture hosts the FinP whose head participates in subject case licensing. Moreover, recall from Chapter 3 that resumptives in the highest subject position need to be at a certain distance from their antecedents. Thus, I take FinP as creating such a distance between the Spec-TP position where the resumptive occurs and Spec-TopP position where the Operator moves to. Following Öztürk (1999, 2005) and Akan (2009), I hold that Turkish clausal architecture has TopP(s) in order to host the topicalized materials that I discuss below. As for the FocusP, I follow the facts observed in Göksel and Özsoy (2000, 2002). There is a focus field in the left of the verb for both contrastive and presentational focus. We can assume that the Foc attracts focalized materials to the left, FocP, for at least contrastive focus purposes. Özsoy (2005) argues that focus feature of C can also percolate down to T, similar to topic feature. The ForceP is needed for theoretical reasons given that a clause, matrix or embedded, needs to be typed as being a declarative sentence or an interrogative one.[178]

I propose that the presence of a TopP in the clause structure is supported by a number of facts. First, embedded clauses in Turkish impose a restriction on the pronunciation of the lexical NPs in the complement and subject positions. That is to

[177] The TopP in Öztürk (1999, 2005) and Akan (2009) is for hosting the topicalized items such as pronouns in the clause structure. The TopP I implement here is assumed to host an empty Topic operator which licenses the variable inside the clause. Note however that the two implementations of the TopP are possible in that the TopP can both host the topicalized materials which are non-variable in nature (personal pronouns) and operator-variable chains. See Özsoy (2005) for the multiple Spec positions of TP for topicalized materials and Öztürk (to appear) for the multiple Spec option for the maximal projections on their left.

[178] See Hiraiwa (2005) for the presence of ForceP in clausal architecture and Kan (2009) for a recent analysis of ForceP in Turkish.

say, in the presence of an NP in the complement position of the matrix verb, a co-indexed NP within the lower clause cannot be pronounced. To see this clearly, let us consider the following examples.

(68) a. Ali [*ec* olay-ı gör-me-me-si için] Mehmet-i uzaklaştır-dı.
Ali event-ACC see-NEG-NOM-3sg for Mehmet-ACC take.away-PAST
"Ali took away Mehmet in order not to see the event."

b. Ali [Mehmet-in *ec* gör-me-me-si için] kalem-in-i sakla-dı.
Ali Mehmet-GEN see-NEG-NOM-3sg for pencil-3sg-ACC hide-PAST
"Ali hide his pencil so that Mehmet will not see it."

In (68a) the subject of the lower clause and in (68b) the complement position of the lower clause are realized as *ec*s. Note that the *ec*s are interpreted with the higher NP in the complement position of the matrix clause. Note also that the *ec*s cannot be pronounced as co-indexed with the lexical NPs. I propose that this property of the embedded clauses supports the presence of a TopP in the clausal architecture in that the *ec*s have topic functions and are licensed via the chains I offered in Chapter 3. In (68a-b) a chain is established between the topic operator and the variable position inside the clause. This indicates the effects of the C domain on the T and V domains of the clause structure in terms of licensing. The topic operator relates the higher NP, i.e. a matrix complement, to the variable position inside the clause.

Moreover, null arguments in Turkish have topic functions, i.e. they mark, the old information and are retrieved from the discourse. Since the variables inside the clause are topics, their licensing seems to be from a topic position. Kural (1993), Kelepir (2000) argue that constituents marked as topics move to TopPs. Kelepir (2001:218-9) proposes that the locative phrase in locative possessive constructions moves from the VP internal position to the Spec position of the TopP. Also, the possessee in these constructions can adjoin TopP (Kelepir 2001:220). Moreover, Kelepir (2001:241) proposes that the locative constituent which is topicalized in predicative locative

structures occurs to the left of the subject. This implies the presence of TopP whose Spec position hosts the topicalized locative constituent. Information structurally speaking, subjects in canonical positions are topic in Turkish and they appear as destressed (Akan 2009).[179]

Özsoy (2005, to appear) argues that the Topic/Focus feature of the C head percolate down to T in the sense of Miyagawa (2004) and creates multiple specifier positions for T, where constituents with a topic feature move. However, as I pointed out in section 6.1.5, I do not implement such feature inheritance for Turkish and propose that the topic feature is present on Top head whose Spec position can host the topicalized materials.

In Turkish, any syntactic unit before the focused constituents and materials in post verbal position are topic and there may be more than one NP with topic function (Akan 2009). Note that topic constituents can be identified with the topic marker *ise* (as for) or its affixed version *'-(y)sA'*[180] (Kornfilt 1997, Özsoy 1999, Göksel and Kerslake 2005). Consider (69).

(69) [$_{TopP}$ [Ali-ye] (ise) [$_{TopP}$ [bu kitab-ı] (ise) SEN ver-ecek-sin]] [yarın]
Ali-DAT TOP this book-ACC TOP you give-FUT-2sg tomorrow
"You will give this book to Ali tomorrow."

In (69) NPs *Ali-ye* (to Ali), *bu kitab-ı* (this book) in preverbal position occurring before the focalized constituent *sen* (you), and *yarın* (tomorrow) in the post verbal position are

[179] See Göksel and Özsoy (2000), Özsoy (2005), İşsever (2008) for the relationship between information structure and syntax. Özsoy (2005) argues that topic/focus feature of C can percolate down to T and create multiple specifier positions. This is the motivation for local scrambling and constituents with topic/focus feature can move to Spec-TP where the multiple EPP feature is present. This gives rise to the 'focus field' effect of Göksel and Özsoy (2000). Özsoy (2005) also discusses constructions in which topic/focus feature do not percolate down to T and constituents with topic/focus feature move long distance to Spec-CP for feature checking purposes.

[180] *Ise* (as for) in (69) can also be considered as topic shifter instead of functioning as topic marker. I thank Aslı Göksel for pointing this out to me.

topic.[181] What (69) also shows is that there may be more than one topicalized constituent in the structure and these correspond, following Rizzi (1997), to multiple specifier positions of TopP.[182] Akan (2009) proposes that in the presence of an identificational focus, the object undergoes A'- movement to Spec-TopP. Also, he argues that the subject is attracted by Top head for feature checking, but before moving into Spec-TopP the subject stops at Spec-TP in order to check EPP.

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[181] Post-verbal constituents are considered as background information in Erguvanlı-Taylan (1984), Akar (1990). İşsever (2003) consider post-verbal constituents as background elements which are different from topics in that while topics bear a pitch accent, background elements lack it.

[182] Aslı Göksel (p.c) has pointed out to me that the focalized constituent *SEN* (you) can occur sentence initially, i.e. before the topicalized constituents. Consider (ia-b) where the focalized constituent occurs in sentence initial and pre-verbal positions respectively, being interpreted as the same.

(i) a. SEN kitab-ı al-dı-n
you book-ACC buy-PAST-2sg
"YOU have bought the book"

b. Kitab-ı SEN al-dı-n
book-ACC you buy-PAST-2sg
"YOU have bought the book"

Given that the two structures are interpreted as the same, our analysis according to which the topicalized constituents occur in Spec-TopP position would fail to capture the facts shown by (ia). That is to say, a focalized constituent occurs left to the topicalized constituent, hence causing problems for the clause structure employed here. A. Sumru Özsoy (p.c) suggests that (ia) would not be problematic in a phase based clausal architecture given that the topicalized constituent occurs in Spec-vP position checking the Topic feature of the vP phase and the focalized constituent occurs in some Spec position in the C domain checking the Focus feature.

I point out that the problem coming with (ia) is only apparent given that the left periphery offered here consists of phrases which can be duplicated. Recall that in (65) in the text, a FocP can occur between two TopPs, having the following representation given in (ii).

(ii) [TopP [ForceP [FocP [FinP [TopP]]]]]

According to (ii), the Topic phrase can be duplicated. This is actually what is proposed in Rizzi (1997) in that Topic can be followed by Focus which is followed by Topic again. However, this does not mean that there are multiple foci in the clause structure. Rizzi (1997:296) argues that the TopicP is recursive while FocusP is not. Thus, a focalized constituent can occur in Spec position of the FocusP which is between the two Topic phrases. In (ia) the focalized constituent occurs higher than the topicalized material which occurs in the Spec-TopP position. If we assume that the FinP acts as a bridge between C and T domains of the clause, having a topicalized material in the second TopP which is the complement of the FinP would have the same effect with what is offered above with respect to the occurrence of the topicalized material in Spec-vP position. Moreover, we can also say that the sentence initial occurrence of the focalized material is merely a PF operation, as a result of which the focalized material is pronounced sentence initially after linearization. Note that the fact that there is no interpretational difference between (ia) and (ib) supports this. However, the issue needs further investigation.

6.4.2. Nominative Case is Licensed by Fin Head in Finite Clauses

After considering the previous analyses of finiteness and the presence of CP in Turkish in sections 6.2 and 6.3, in this section I propose that finiteness in Turkish is marked in the CP domain by the Fin head. Thus, the nominative subject case in finite clauses, i.e. main clauses and direct complements is not licensed by T or Agr head, but via the feature complex in Fin head.

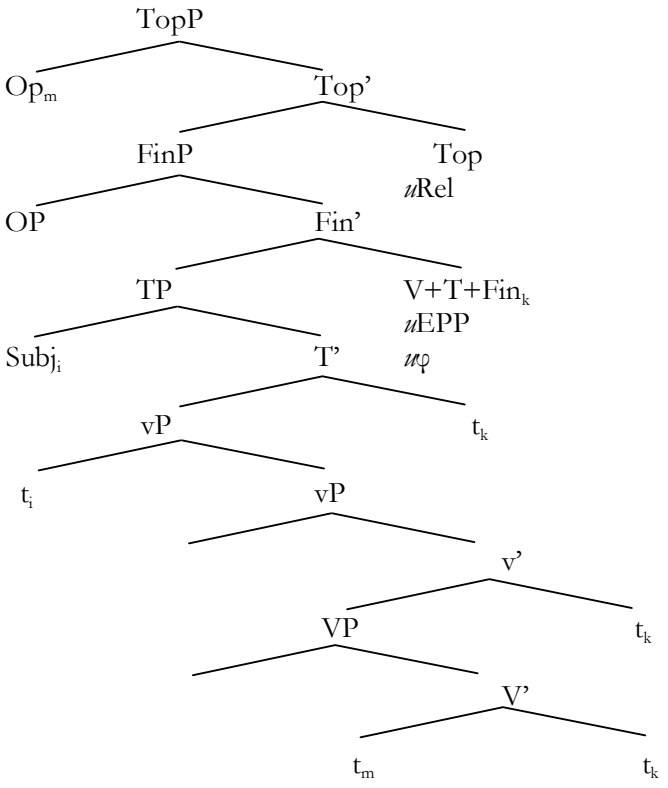
Nominative case licensing in C domain is not a new proposal. Following the influential work of Rizzi (1997), a number of proposals for the licensing of subject in the C domain is made for languages with a rich system of complementizers. Irish is one of these languages where the C head marks non-past vs. past and future vs. past distinctions (Cottell 1995). Aside the C heads with temporal specifications; there are languages such as West Flemish and Bantu where agreement features appear on C (Haegeman 1992 and Henderson 2006 respectively). Also, there are studies which argue that the locus of the Agreement is the C head (Aygen 2002, Carstens 2003, Miyagawa 2004). Chomsky (2005, 2007) argues that the C head has two probes one of which attracts DP as far as Spec-TP where a φ-Agree is established. Moreover, Hiraiwa (2005:312) argues that EPP feature is on the C head rather than T. EPP and Op are features of C probe which work simultaneously for relativization.

As for the nominative subject case licensing in Turkish, I follow Bianchi (2003), Adger (2007) and Kornfilt (2007) in that there is a maximal projection in the C domain for finiteness and subject licensing. Kornfilt (2007:329) hints at the possibility of having a separate projection for finiteness in Turkish. However, Kornfilt's approach to FinP differs from that of Adger (2007) for Scottish Gaelic in that Fin head is filled by the morphological Agr in Turkish while agreement has its own maximal projection in Scottish Gaelic. Adger (2007) proposes that there is a maximal projection on top of the clause structure associated with a particular kind of semantic force. The maximal

projection is FinP where the semantic force is linked to the speech event either deictically (finite clauses) or anaphorically (non-finite clauses). Adger (2007:36) notes further that the Fin head can also bear features such as tense and agreement.

According to the proposal here, Fin head in a finite clause has uninterpretable EPP feature which must be checked by the subject in Spec-TP. This is in line with Hiraiwa (2005) who argues that EPP is a feature of the C head (Hiraiwa's C_2P corresponds to FinP in this work). This secures the presence of the subject in Spec-TP position. Also, the idea that the subject is in Spec-TP is independently supported by the resumption data in Chapter 3. I propose that the empty operator in Spec-FinP and the head amalgamate in Fin head together license the subject in finite clauses.

(70)



I propose that the structure of a clause involves the movement of the verb from its base position to Asp/T head since Asp head has uninterpretable V feature (Kelepir 2001, Sezer 2001, Ulutaş 2006). This movement is for feature checking. V+Asp complex is

[+N] and Fin head has uninterpretable N feature. V+Asp complex moves to Fin head for feature checking.

The position of the subject in (70) needs discussion. In the literature, there is a partition for the genitive and nominative subjects in Turkish. Aygen (2002), Öztürk (2005) and Kornfilt (2007) argue that while genitive subjects are higher, i.e. they occur in Spec-CP position, the nominative subjects are hosted lower in the architecture, i.e. they can occur in Spec-TP position. Note that the Spec-TP option for the subject implies the presence of EPP as a feature which must be checked and those who argue that the subject is in Spec-TP assume that EPP must be checked by the subject in Turkish. However, as argued in Öztürk (2005, 2008, to appear) EPP is subject to parametric variation. In the absence of EPP, the nominative subject can be generated VP internally, i.e. licensed by the thematic head in the theta domain of the clause.[183] Moreover, following Alexiadou and Anagnostopoulou (1998), we can argue that EPP can be checked by verb movement to T head.

6.4.3. Case and Agreement

In the previous section, I pointed out that the subject of the clause is licensed by the feature complex in Fin head and the empty operator in Spec-FinP. Following Aygen (2002), I propose that the genitive case on the embedded subject is related to the overt or covert head nouns in these constructions. It can also be argued that nominative in Turkish is a default case which occurs at PF component, while genitive case depends on

[183] This does not mean that EPP is totally absent in the clausal architecture. See, for instance, Aygen (2000), İşsever (2008) for EPP driven A- scrambling in Turkish. Also, Kelepir (2001:204) argues that locative phrases move to Spec-TP position in order to check EPP feature of T. Moreover, Alexiadou and Anagnostopoulou (1998) argued that EPP can be checked via head movement alongside the DP raising to Spec-TP. Thus, there is no need to project Spec-TP given that verb movement checks EPP feature of T. Following this line of reasoning, Öztürk (2005), Ulutaş (2006), Akan (2009) have argued for a low position of the subject in Turkish.

In a more recent work, Alexiadou and Anagnostopoulou (2007) argued that EPP is not merely a feature for the movement to Spec-TP, but rather it provides landing sites for argument DPs which move out of vP. Thus, EPP forces movement of either the subject or the object.

the head noun. As for the Agr, I propose that it is realized at PF under one of the functional categories, Asp, C or *n*. In complement clauses, it occurs at Fin head attached to the v+Asp complex. In free relatives, on the other hand, it occurs under the null head noun.

Recall that the function of the clause is argued to be crucial in Kornfilt's system in that the agreement element inside the clause licenses the subject case in complement clauses where it is domain internally licensed. While complement clauses can be domains for Agr, adjunct clauses are not, hence Agr is not able to license the subject. I have pointed out some problematic aspects of this view in the previous sections. What I want to do here is to argue that the function of the clause is not crucial for the subject licensing of the Agr element and for the nature of case morphology on the subject.

The idea that Agr is a syntactically active feature causes problems for the clause structure. I argue that Agr is not a syntactically active feature and its distribution is mediated by morphological well-formedness requirements. That is to say, Agr is required in the structure not for syntactic reasons, but for morphological reasons.

One can also consider the role of Agr elements within the framework of Distributed Morphology. In a post-syntactic morphology component, the Agr element can be considered dissociated morphemes which are inserted at PF and undergo some morphological operations. The lack of isomorphism between the syntactic structure and the morphological structure is observed in the non-finite clauses regarding the agreement markers. The lack of genitive subject in the presence of a nominal agreement marker is one of them.

Also, the issue can be considered from another morphological point of view which is based on the notion "minimum word length" for morphological well-formedness. Göksel (1997) points out that a Turkish non-finite verb must meet the requirement where three slots must be filled. In the absence of a syntactically active role,

the Agr element is just inserted to the derivation for purely morphological reasons. Embedded verb forms which lack the Agr morpheme but are still well formed can be explained by extending the minimal word length requirement from morpheme based restriction to syllable based restrictions. That is to say, embedded verb forms with bi-syllabic morphemes such as *'-(y)IncA'*, *'-IrkEn'* can be considered as involving two morphemes (Özsoy 1999 analyzes the latter as involving two morphemes and Öztürk 2002 takes these morphemes as fused elements).

6.4.4. Relative Clauses Revisited

The derivation of the relative clauses in Turkish is discussed in Chapter 2 with respect to the model we assume in this study. In this section I will discuss the role of agreement morphemes in relative clauses with respect to the system I offered for non-finite clauses.

Relative clauses have been the most widely discussed topic of Turkish linguistics for both its theoretical and applied aspects. Hiraiwa (2005:189) notes that the reason why relative clauses attracted high levels of attention is that they both show nominal (DP) and sentential (CP) properties simultaneously. They have both rich external relations due to their DP nature and internal relations due their CP nature.

The two types of relative clauses, subject vs. non-subject relativization, have been argued to be syntactically different with respect to the agreement morphology which is present in the latter but not in the former. In non-subject relativization case, the presence of the agreement morphology on the relativized verb makes the subject appear in genitive case (Underhill 1972, Poole 1992, Özsoy 1998, Çağrı 2005, Ulutaş 2006, Öztürk 2008). The subject position of a subject relative clause, on the other hand, is naturally occupied by the trace of the empty operator or the head noun.

Meral (2006a) observes that the subject position of a subject relative clause can be pronounced as a resumptive pronoun alongside the gap. This observation actually supports the idea that agreement morphology is responsible for the subject case in relative clauses since the resumptive pronoun appears in nominative case in the absence of the agreement morphology on the relativized verb.

However, I argue that this is not what happens in relative clauses. Relative clauses are modifying clauses where the clause modifies a head noun. The presence of the head noun is crucial for our system in that the relative clause forms a discontinuous structure with the head it modifies. The subject is realized as genitive due to the head noun. How about the agr-less subject relative clauses? How can the resumptive pronoun be realized as nominative but not genitive in the presence of the N head?

I argue that the -(y)An clauses are true relative clauses in that a true relativizer instead of a general nominalization morpheme is used for clausal modification purposes. Since it is the true relativizer, it is not involved in a case relation with its head noun unlike the nominalization morpheme *'-DIK'* which does so. I point out that [V+Rel] structure is the only participle form in Turkish which is used for clausal modification purposes. The absence of Agr on the verb is due to its true participle nature which in turn implies that *–(y)An* clauses are some form of reduced relatives. Thus, the fact we observe in Chapter 3 on the distribution of resumptives in two types of relative clauses might find some explanation. That resumptives are more readily acceptable in *–DIK* clauses, i.e. non-subject relative clauses, than *-(y)An* clauses, i.e. subject relatives, might be due to the reduced nature of *–(y)An* clauses.

Moreover, the two relativization strategies might follow from the proposal made for the nature of left periphery in clause structure. In *'–DIK'* strategy, both operators, i.e. operators in Spec-FinP and Spec-TopP, in the C domain are active. That is to say, the Rel Operator moves to the Spec-TopP position and the Fin Operator licenses the

subject. In *'-(y)An'* strategy, on the other hand, there is only one active Op in the C domain. The Rel Operator originates in Spec-AspP position and moves to the Spec-TopP position. The movement leaves a variable behind which cannot enter into a second licensing relationship with another operator, i.e. the Fin Op.

6.5. Conclusion

In this chapter I discussed four main points: (i) the status of feature inheritance offered by Chomsky (2005, 2007) for Turkish, (ii) the syntactic category which is responsible for finiteness and subject case licensing, (iii) the presence of CP layer in clausal architecture, and (iv) left periphery of clauses. The basic idea of the chapter was to offer a clausal architecture for Turkish which reflects the general language specific facts of Turkish and within which the licensing mechanisms I offered in the entire dissertation operate in.

I proposed that feature inheritance and feature percolation based treatments of case licensing are problematic in that feature inheritance model, together with the Phase Theory (Chomsky 2001) is superficial for a language with a weak A- domain. That is to say, Turkish implements a rich A'- domain for the licensing of grammatical formatives. I proposed that this makes feature inheritance model which assumes two types of features for a phasal head, Edge feature and Agree feature corresponding to A'- versus A-domains respectively, superficial.[184] Instead, I suggested that Turkish clausal architecture has a rich left periphery where the features are associated with functional heads which have their own maximal projections.

Second, I have pointed out that there is no single syntactic category such as Tense or Agr which can be responsible for finiteness and subject case licensing. Instead, I have pointed out that there is indeed a CP layer in Turkish whose presence is both

[184] This does not mean that Turkish does not have an A- domain. Actually, the analysis provided here for resumption requires the presence of an A- domain for case checking purposes. I thank Cedric Boeckx for this point.

theoretically and empirically justified and which can be used to explain a number of phenomena varying between post verbal scrambling and null argument licensing. I proposed that the head complex in Fin head position and the empty operator in Spec-FinP position license the nominative subject in Turkish. Moreover, I proposed that agreement is a PF phenomenon in that Agr is not a syntactically active feature but required for morphological well-formedness conditions.

CHAPTER VII

CONCLUSION

Languages seem to have optimal designs in order to express various linguistic phenomena. Taking this fact as a departure point, in this dissertation I intended to investigate distinct grammatical phenomena such as resumption, binding, control, null object licensing in Turkish and to provide a general licensing mechanism to derive structures which have been analyzed in the literature as involving different grammatical operations. Taking similar properties of the grammatical formatives of these different operations, -resumptives, anaphors, pronouns, pro, PRO- I attempted to develop a unified account in order to license their presence in the structure. The locality based problems posed by the A- chain treatment of the linguistic objects –anaphors, PRO- led the dissertation to argue for a system which is based on A'- chains which I assume to involve a different sense of locality. I argued that the linguistic phenomena of binding, resumption, control and null object licensing can be reducible to A'- chains where the Operators actively participate in the clausal architecture and license the grammatical formatives which have been assumed to be licensed under the technical apparatus of different grammar modules. Following Boeckx (2003a), I argued that resumptives begin their derivation together with their antecedent, an empty Operator and this argument can be extended to the instances of anaphors and PROs. After the movement of the Operator to the C domain, the formatives strand. The movement of the Operator involves [Match+Move] rather than [Match+Agree+Move] operations and it is this property which allows the Operator to cross an island boundary. In other words, the property of the chain allows the C head to probe a goal inside an island. I argued that long distance application of the above mentioned grammatical operations follows from this.

The first immediate consequence of the system offered here in terms of Minimalist Syntax is related to the economy of derivations. Two lines of discussion appear in this respect. On the one hand, the system provides a unified licensing mechanism by which the phenomena of binding, control, resumption and null argument licensing receive an explanation. This implies that the grammar proper need not include binding construal and control module and this, in turn simplifies the syntactic component. On the other hand, the system offered here separates the lexical antecedent from the grammatical formative and puts it in an inactive position regarding the licensing process. This implies that the coreference relation between the antecedent, say a subject NP, and the formative, say an anaphor, is not a direct consequence of the licensing mechanism but a separate process which takes place after the licensing mechanism is established. This can be considered as bringing an additional burden into the syntax proper. However, I argue that the first line of reasoning fares well in that a unified account of different grammatical operations simplify the syntax and the coreference relations can be dealt with in the interface levels. It should also be noted that the intricacy of the binding construal which occurred in the GB era is replaced with a relatively simpler system in the dissertation.

The second implication is related to the Binding Theory and worth discussing in the conclusion chapter. Putting the R-expressions aside, the Binding Theory stems from the distribution of pronouns and anaphors which is based on the complementarity of these two grammatical formatives. The dissertation has shown that this partition does not seem to be a universal phenomenon in that there are languages such as Turkish where the pronominal system seems to have a three partite system where not only the distribution of the personal pronouns and anaphors, but also that of a complex pronominal expression *kendisi* are crucial for the exact nature of the pronominal system. This is line with the observation made in Hornstein (2006) that Binding Theory

conditions are morpheme specific. That is to say, Turkish has a pronominal system where (i) the pronouns are employed for a restrictive set of functions which includes deictic use, but excludes bound variable anaphora, (ii) *kendi* is employed for a set of functions including the reflexive, the bound variable and other adverbial and adjectival functions, but excluding the resumptive function, (iii) *kendisi*, as a complex pronominal expression, is employed for a set of functions which combines the functions of the former two elements. The dissertation has argued that the pronominal system of Turkish needs this three-partite system in order to explain the distribution of these grammatical formatives. Also, I have shown that the distribution of covert pronominal expressions –PRO and *pro,* appears in a different way in Turkish. The complementarity between these two grammatical formatives observed in a number of languages is not attested to in Turkish. The dissertation has taken them as instances of bound variables whose licensing is mediated by operator-variable chains.

The most important consequence of the dissertation for resumptive licensing is the idea that language particular properties seem to be crucial for the derivations of linguistic expressions. This is clearly observed in the island insensitivity of the resumptives and the saving device characteristics of them. The facts observed here might be considered as a direct result of the fact that the nature of the extraction domains does not solely depend on the nature of the domain but also on the nature of the grammatical operations involved in the domain. That is to say, the notion of extraction domain cannot merely be defined by finiteness (finite vs. non-finite) of the clause or the syntactic category (CP vs. AgrP) of it. Rather, the extraction respects the type of operations inside the clause, i.e. interactions between the operators or subject positions as a result of which the subject position freezes itself and blocks extraction out of it. Also, the type of the movement involved is important for the islandhood of a category. This implies that islandhood itself is not a mere determining factor for the

presence or absence of movement. Rather, islandhood is something which must be decided on by considering distinct phenomena.

The dissertation revealed that Turkish resumptives contribute to the resumption literature for their morphologically complex structure. It is observed here that in addition to the personal pronouns and clitics, languages might employ complex pronominal expressions for resumptive purposes and the complex structure of the resumptive might have implications on the licensing mechanism responsible for resumption in language. I have taken a resumptive as involving two parts in the dissertation: (i) nominal base part, and (ii) minimal copy part. This partition allowed us to explain a number of phenomena with respect to both the derivation of resumption and the nature of pronominal anaphora in Turkish.

The dissertation provided discussions on the various grammatical phenomena in terms of locality and the domains where the grammatical operations take place. The discussions revealed that A- vs. A'- distinction of the chains might be that crucial for some languages. However, this does not mean that A- domain is completely absent in Turkish. I proposed that A- chains are problematic with respect to locality and it is the A'- domain where various grammatical formatives are licensed.

Another implication of the analysis put forward in the dissertation is that languages might have bound variables which are bound by two distinct operators. Reducing anaphor binding into an operator-variable chain makes it possible to stipulate that in the presence of a quantificational operator, the anaphor is bound by two distinct operators, an empty topic operator which licenses the anaphor, and a universal quantifier which binds the variable. This seems to be against Bijection Principle of Koopman and Sportiche (1982) according to which one operator can bind only one variable. The Turkish facts makes us reconsider the Bijection Principle in that Bijection Principle is another instance of one-to-one relation in many syntactic phenomena which

have been argued to hold for instance between case and agreement. That is to say, one-to-one relations between probes and goals can be questionable in this ground as already discussed in Hiraiwa (2005) as the issue of Multiple Agree. I proposed in the dissertation that one-to-one relation does not have to exist for all operations in syntax. However, the issue needs more research as to whether the crucial point is one-to-many or many-to-one relations in syntax.

I proposed that these chains undergo a chain reduction process at LF as a result of which the anaphor is interpreted as a bound variable. This implies that the operators may induce selective binding where different types of operators bind different types of variables. The opposite case is called "unselective binding" which allows the operator to bind all variables in its scope indiscriminately.

Note also that this has implications on the question where binding relations occur. Recent literature on Minimalist program supported the idea that binding conditions apply at narrow syntax rather than LF, given that binding relations have properties shown by narrow syntactic operations. However, our discussion reveals that binding has interactions with the interpretive phenomena such as quantifier interpretation (Fox and Nissenbaum 2004, Sportiche 2006). I proposed in the dissertation that an anaphor is licensed via an operator-variable chain in narrow syntax. When the derivation is mapped to the interface level LF, the chain is converted into a quantifier-bound variable chain without violating Inclusiveness Condition (Chomsky 1995) given that no interpretive difference is observed, i.e. *kendi* is interpreted as bound variable in both cases.

Apart from the implications on the general theory of syntax, the dissertation has implications on the syntax of Turkish. First of all, relative clauses in Turkish are not formed with complementizers, relative pronouns or overt operators. The absence of these linguistic items speaks for a reduced clause or a derived adjective formed via

derivational morphology while the presence of high level adverbs and adjunct modification speak for a full clausal architecture. The dissertation is based on the assumption that relative clauses have full clausal architecture and explained a number of linguistic phenomena via the empty operators in the C domain of the relative clauses. This strengthens the position that relative clauses in Turkish have a full clausal architecture.

The dissertation argued that Turkish clausal architecture has a rich left periphery endowed with empty operators which license the grammatical formatives inside the clause. In this way, it contributed to the understanding of the exact nature of the C domain in Turkish and its effects on the T and V domains. The discussion on case and agreement phenomena revealed that handling these issues in narrow syntax would cause problems. That is to say, genitive or nominative case markers on the subject of a clause are not checked by Agr or T heads due to the absence of either category in some clauses. This might leave us with a possible line of argumentation to the effect that case and agreement can be considered as purely PF phenomena. There might be a default case assignment mechanism as a post-syntactic operation which assigns default nominative case to the subjects without relying on φ-feature agreement in narrow syntax.

Related to this topic, I proposed in the dissertation that the feature inheritance model offered by Chomsky (2005, 2007, 2008) seems to be superficial for Turkish. Turkish does not need to employ feature inheritance as a result of which the Agree or Edge features of the phasal head C percolate down to T head for licensing purposes via Agree. The conceptual argument behind feature inheritance is argued by Chomsky (2005, 2007) to be the idea that A- versus A'- distinction has to be structurally available in Conceptual-Intentional (C-I) level. The Agree feature of C corresponds to the A-domain where the subject case is licensed by T head via Agree and Edge feature

corresponds to A'- domain where various A'- dependencies are licensed. I proposed in the dissertation that feature inheritance model is conceptually untenable for a language where such distinction between A- versus A'- domains is superficial. However, this is far from being a conclusive remark on the nature of the C domain in Turkish syntax. Future investigations would show the exact nature of the C domain and how A- versus A'- operations take place in the language.

The issues related to resumption are so diverse that the dissertation had to leave a number of issues for further investigations. Obviously, the first question which should be asked in terms of resumption is the one which has been raised in McCloskey (2005), *why do languages have resumption?* Recall that resumptives appear in the positions where the corresponding gaps are expected to occur. I know of no language which predominantly uses resumptives in A'- contexts, i.e. there is no language which makes use of resumptives rather than gaps in all A'-extraction cases from all syntactic positions. This fact might have led the studies on resumption to work on the syntactic conditions on the presence of resumptives and their licensing rather than addressing the question cited above. The present study is no different in this respect. I think McCloskey's (2005) observation that there is no language which makes use of a separate linguistic expression or a device for only resumption purposes is connected to this fact. No language makes use of a separate device for resumption purposes because resumption itself appears as an alternative strategy of A'- extraction. Providing possible answers to this question requires a lot of cross-linguistic observations. But the impossible answer has already been implied in the experimental studies on resumption: the addition of resumptives does not improve the comprehension of the sentence (Freidman 2009). In other words, resumptives are not there in order to improve the comprehension of an utterance or to overcome the memory limitation effects.

The present study also suffers from the lack of a principled discussion on the semantic effects of resumptives. Recall that resumptives contribute to the sentence meaning when there is a quantificational expression in the subject position, a fact which makes many analyses of resumption face with the LF transparency problem. The issue remains to be solved in further investigations but the best solution to the problem might come with the discussion of the issue under *variable free semantics* where the semantic calculus is directly developed from the surface form, and through the instances of functional application or compositional rules, each syntactic constituent is composed and semantic calculus follows from this composition. This eliminates the notion of "variable".

Moreover, the present study is far from being conclusive on the issue of finiteness and subject case licensing. One thing for sure that I concluded in the dissertation is that no single category, i.e. Tense or Agreement can be responsible for subject case licensing. Rather, a feature complex seems to be at work. However, the exact nature of this operation and especially its relation with the Finiteness operator needs more discussion.

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