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Resumptive Pronouns in Turkish

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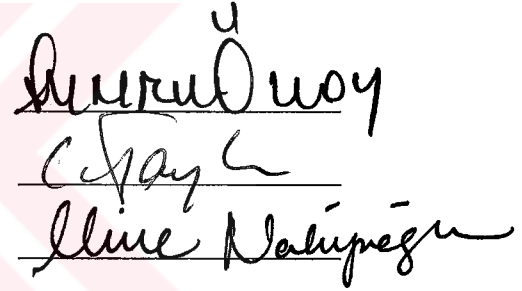
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ABSTRACT

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This study analyzes the distributional properties of resumptive pronouns, relative clause formation and the nature of the A'-dependency between the resumptive pronoun and its antecedent in Turkish. With respect to the distributional properties, it is argued that Empty Category Principle can account for the alternation between the traces and corresponding resumptive pronouns. The basic claim in this thesis is that resumptive pronouns in Turkish relative clauses are syntactic variables which are bound by a null operator in Spec-CP position. This claim is supported with the facts observed by considering the Condition C effects (strong and weak cross-over phenomena), coordination structures and parasitic gap constructions in Turkish. It has also been noted that relative clause constructions in Turkish can either be derived by empty operator movement proposed by Chomsky (1977, 1981) and head raising by Kayne (1994).

The description of the distributional properties of the resumptive pronouns indicates that they are optional in some syntactic positions and obligatory in some others. There is also one position in which the occurrence of a resumptive pronoun is prohibited. For all of syntactic environments in which a resumptive pronoun occurs, it is pointed out that Empty Category Principle (Chomsky 1981, 1982, 1986b, Rizzi 1990) can account for the optionality vs. obligatoriness of the resumptive pronoun.

It is pointed in this study that relative clauses in Turkish are derived by operator movement in Chomsky (1977, 1981) and head raising in Kayne (1994). However, the restrictive reading and free ordering of relative clauses among other prenominal modifiers indicate that relative clauses are not complementation structures as Kayne (1994) argues, but are adjunction structures with respect to their relations to the head noun.

In conclusion, the facts about the distributional properties of the resumptive pronouns, relative clauses, reconstruction effects and Condition C violations observed in this study are analyzed to support the claim that RPs are syntactic variables at the level of S-Structure.

KISA ÖZET

Türkçede Artık Adıllar

Hasan Mesud Meral

Bu çalışma Türkçe'deki artık adılların dağılımsal özelliklerini, genel olarak ortaçların türetimini ve artık adıl ile bağlayıcı arasındaki Ü'-ilişisini incelemektedir. Artık adılların dağılımsal özelliklerine ilişkin olarak, Boş Kategori Kuralı'nın adıl ile karşılığı olan boş kategori arasındaki değişmeyi açıkladığı iddia edilmektedir. Çalışmanın temel iddiası ise Türkçe ortaç yapılarındaki artık adılların belirleyici konumundaki sesbirimsel içeriği olmayan bir işleyici tarafından bağlanan sözdizimsel değişenler olduklarıdır. Çalışma aynı zamanda Türkçe'deki ortaç yapılarının hem Chomsky (1977, 1981) tarafından öne sürülen işleyici yükselmesi kuramıyla hem de Kayne (1994) tarafından ortaya atılan baş öge yükselmesi ile açıklanabileceğini de savunmaktadır.

Artık adılların dağılımsal özelliklerinin incelenmesi, bu adılların bazı sözdizimsel konumlarda seçime bağlı öge olduklarını, diğer bazı konumlarda ise zorunlu öge olarak bulduklarını ortaya çıkarmaktadır. Ayrıca artık adılın kullanılmasının mümkün olmadığı yerler de vardır. Artık adılın kullanılabildiği tüm bu sözdizimsel yerlerle ilgili olarak, Boş Kategori Kuralı (Chomsky 1981, 1982, 1986b, Rizzi 1990) seçime bağlı-zorunlu artık adıl kullanımını açıklayabilmektedir.

Çalışmada Türkçe'deki ortaç yapılarının hem Chomsky (1977, 1981) tarafından öne sürülen işleyici yükselmesi kuramıyla hem de Kayne (1994) tarafından ortaya atılan

baş öge yükselmesi ile açıklanabileceği belirtilmektedir. Ancak, Türkçe'deki ortaç yapılarında ortaya çıkan genel kısıtlayıcı anlam ve bu yapıların diğer ad belirleyicilerine oranla daha özgür bir dağılıma sahip olmaları, ortaç yapılarının, belirledikleri ad ile olan ilişkileri yönünden tümleş yapıları değil tamamlayıcı yapıları olduğunu göstermektedir.

Bu çalışmadaki artık adılların belirleyici konumundaki sesbirimsel bir içeriği olmayan bir işleyici tarafından S-yapısında bağlandıkları (Ü'-bağlama) iddiası, Türkçe'de Bağlama kuramının C koşuluna bağlı olarak ortaya çıkan güçlü ve güçsüz kuralsız geçiş etkilerinden, sıralı tümce yapılarından ve asalak boşluklu yapılardan elde edilen izlenimlerle kanıtlanmaya çalışılmaktadır.

Sonuç olarak, bu çalışmada artık adılların dağılımsal özellikleri, genel olarak ortaç yapıları, yeniden oluşturma etkileri ve C koşulu ihlallerine bağlı olarak ortaya çıkan olgular, artık adılların S-yapısında sözdizimsel bir değişen olduklarını kanıtlamak amacıyla incelenmektedir.

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CHAPTER I

INTRODUCTION

1.1. Aim

The aim of this thesis is to investigate the properties of resumptive pronouns (henceforth RPs) and discuss the nature of the A'-dependency between the resumptive pronoun and its antecedent in Turkish. The distributional properties of RPs, (where they are optional, where they are obligatory and where they are sanctioned) are discussed. It will be argued that RPs in Turkish relative clauses are syntactic variables bound by a null operator in Spec-CP which moves to that position from its base position.

1.2. Resumptive pronouns

A resumptive pronoun is defined by Haegeman (2001:409) as a pronoun that is related to the relativized NP. Another definition of the RPs is given by Mc Kee & Mc Daniel (2000:114) who hold that a resumptive pronoun is a pronominal variable that appears in the position from which movement is proposed to occur. As pointed out by Kornfilt (1997:130), in Turkish, the reflexive pronoun 'kendi' (self) can be used as a resumptive pronoun but this use of it is restricted to the third person singular or

plural pronoun forms.¹ These pronouns are limited to human referents. Kornfilt also notes that the regular personal pronoun cannot be used as a resumptive pronoun but is used to express anaphoric relationships across clauses.

In the following section, I investigate the basic facts of the distribution of RPs in Turkish relative clauses by considering their occurrence in the following syntactic environments: internal and second complement positions, postpositional complement positions, adjunct position and subject positions. RPs alternate with corresponding gaps in certain positions in a Turkish sentence, while they occur obligatorily in some other positions. The difference in the behavior of RPs (optional vs. obligatory RPs) will be used as an argument to further support the proposal made by Kornfilt (1984) that certain nominal constructions in Turkish are in fact ‘genuine’ postpositional constructions. I will assume the empty operator movement model for the derivation of relative clauses in this chapter since none of the examples involves reconstruction of the nominal head (See Chapter 3). Also, due to the restrictive reading of Turkish relative clauses, I will assume that relative clauses in Turkish are not complementation structures but adjunction structures, CP adjoined to NP.²

¹ According to Kornfilt, this usage of reflexive pronoun “kendisi” is restricted to save long distance extractions like those found in relativizations out of relative clauses. However, as can be noted in the following data, resumptive pronouns can occur in simplex relative clauses as well as relativization (complex) out of relative clauses.

² There are two basic analyses which are discussed in Chapter 3 in detail for relative clause formation in languages: (i) operator movement (Chomsky, 1977) and (ii) head-raising (Kayne, 1994). The syntactic function of the relative clauses with respect to the head they modify is another question which has two basic answers: (i) relative clauses are complementation structures and (ii) relative

1.3. Distribution³

RPs in Turkish can occur in internal complement, second complement, embedded subject and highest subject positions. In these positions, RPs in Turkish are optional, i.e. they vary with gaps, which is the canonical relative clause formation strategy in Turkish. There are two conditions for obligatory RPs in Turkish, i.e. positions in which the corresponding gap is ruled out in a Turkish sentence. These are (i) complements of postpositions, and (ii) certain adjunct positions. Finally, RPs are sanctioned in a position between a quantificational antecedent and a pronominal it binds.

clauses are adjunction structures. There is one approach in favor of both derivation which is argued by Aoun & Li (2003:2). They argue that languages do not strictly apply either strategy to form their relative clauses. Languages do not exclusively apply either head-raising or operator movement to derive their relative clause constructions. Both derivations are available. The choice of either option is based on morpho-syntactic properties of relative clauses and other general conditions of the grammar such as reconstruction facts, the presence/absence of determiners, idiom relativization and coordination (Aoun & Li: 2003:106-107).

³ The distribution of RPs is analyzed for Swedish by Zaenen, Engdahl & Maling (1981), for English by Safir (1986), Mc Daniel & Cowart (1999) and McKee & McDaniel (2001), for Hebrew and Palestinian Arabic by Shlonsky (1992), for Hebrew by Sharvit (1999), for Polish by Bondaruk (1995), for Spanish and various other languages by Suner (1998), for Welsh by Willis (2000), for Lebanese Arabic by Aoun, Choueiri & Hornstein (2001), for Moroccan Arabic by Ouhalla (2001), for Irish by Mc Closkey (1990, 2002) and for Persian by Taghvaipour (2004).

1.3.1. Optional resumptive pronouns

RPs in Turkish are optional in internal complement, second complement, embedded subject and highest subject positions.⁴ In these positions, they vary freely with gaps as illustrated in the examples (1a-d) respectively:

- (1) a. [CP OP_i [C' [IP pro_j [I' t_i / kendisi-ni_i sev-diğ-im_j]]]] kadın_i
 self-ACC love-DIK-AGR woman
 “the woman whom I love (her)”
- b. [CP OP_i [C' [IP pro_j [I' t_i / kendisi-ne_i çiçek gönder-diğ-im_j]]]] kadın_i
 self-DAT flower send-DIK-AGR woman
 “the woman whom I sent flower (to her)”
- c. [CP OP_i [C' [IP ben-im_j [I' [CP t_i [C' [IP t_i / kendisi-nin_i [I' yarın
 I-GEN self-GEN tomorrow
 gel-eceğ-i_i-]]]] ni söyle-diğ-im_j]]]] arkadaş-ım_i
 come-ECEK-AGR -ACC tell-DIK-AGR friend-POSS
 “my friend who I said he is going to come tomorrow”

⁴ The occurrence of RPs in highest subject position is banned in many languages (cf. Mc Closkey (1990:210), (2002:201). Boeckx (2001:36) studies the pro-drop characteristics of languages which ban RPs in highest subject position and the possibility of subject RPs. However, Suner (1998) reports pro-drop languages (Spanish and Yiddish) which allow RPs in this position. Turkish as a pro-drop language allows them in this position, too, as illustrated in (1d). Therefore, Mc Closkey's Highest Subject Restriction works for Irish, but it fails cross-linguistically since Spanish, Yiddish and Turkish allow RPs in this position (cf. Suner 1998:350).

(1c-d) illustrate that RPs can occur in subject positions in embedded clauses in Turkish. In both examples the trace of the empty operator is in Spec-IP of the respective clause, the most deeply embedded clause in (1c) and the highest clause in (1d). In (1c), the trace in the subject position of the most deeply embedded IP alternates with a resumptive pronoun ‘kendisi-nin’ (him-/her-self’s). The clause in which the trace alternates with the resumptive pronoun is embedded within a relative clause. The subject of the most deeply embedded IP is different from the subject of the relative clause. In (1d), the trace in the highest subject position of the relative clause varies with the resumptive pronoun ‘kendisi’ (him-/her-self). Note that the subject of the verb ‘sev-’ (to love) in the relative clause appears in nominative case, unlike the one in (1c), due to the lack of agreement morphology in the verb in these constructions.⁷

b.	Maç-a	ilgi	fazla	değildi.
	game-DAT	interest	much	NEG.COP-PAST
	“There was not much interest to the game.”			

In (ia), the complement of the overt postposition ‘maç-a’, the head noun, is assigned dative case by the overt postposition ‘karşı’ and in (ib) by its null counterpart in ‘KARŞI’. In fact, some postpositional heads like ‘doğru’ (towards) can vary with its null counterparts in Turkish.

⁷ The choice of the participle suffix is a question of big debate in the history of Turkish linguistics. See Underhill (1972), Hankamer & Knecht (1976), Kornfilt (2000a) for discussion. The core point of the discussion in these works is that when relativizing a subject, the suffix –(y)An is used and there is no agreement morphology on the verb. On the other hand, when the suffix –DIK is used in the relativization of non-subjects, nominal agreement markers appear on the subject of relative clause and the relativized verb.

Note that the presence of the gap (trace of the null operator) in these positions is licensed by the Empty Category Principle which regulates the conditions of traces (Chomsky 1981, 1982, 1986b, Rizzi 1990)⁸. It has been proposed in Chomsky (1982) that overt NPs must be assigned case and the case feature of the NP makes it visible for theta role assignment. Thus, overt NPs are formally licensed by case. In (1a), the verb governs both the trace of the moved empty operator and the resumptive pronoun complement. In (1b), the gap which alternates with a resumptive pronoun in the second complement position of the verb is assigned dative case structurally and theta marked by the verb. In the variants of the example in (1c) the gap is the trace of the moved empty operator which is antecedent-governed and coindexed by the moved operator in Spec-CP, thus satisfying the ECP and receiving its interpretation. Hence in all of these positions above, the occurrence of gaps and corresponding RPs is allowed as indicated by the grammaticality of alternate structures in (1a-c).

What is significant is that in (1d), the resumptive pronoun is in the highest subject position of a -(y)An clause. The licensing condition which allows the occurrence of the resumptive pronoun in this position will be discussed in Chapter 4.

1.3.2. Obligatory resumptive pronouns

As opposed to the internal complement, second complement, embedded subject and highest subject positions discussed in the previous section, RPs occur obligatorily in certain positions in a Turkish relative clause. These are the positions in which the

⁸ See Özsoy (1984) for a discussion of the binding properties of the empty categories left behind by move- α and other elements both overt and phonologically null.

relativized NP corresponds to the complements of certain postpositional phrases or to certain other adjuncts in the relative clause. It will be assumed that there exist two different adjunction strategies for case marked adjunct RPs with respect to their behavior in ECP. Based on the fact that the nature of postpositional structures in which RPs are optional and those in which they are obligatory is overtly similar, we will distinguish between two types of postpositional clauses in Turkish: (i) ‘genuine’ postpositions which have an overt agreement marker with which they allow gaps in their domain, and (ii) ‘nominal clauses’.

1.3.2.1. RPs as ‘bare’ adjuncts

RPs are obligatory in some VP-adjunct positions. Actually, there is no clear tendency among the various adjuncts with respect to their behavior as RPs in relative clauses. While some RPs with certain case markers in VP-adjunct positions are obligatory, some others with the same case markers are optional as illustrated in the (a) and (b) examples of (2-5) respectively. Examples (2-5) are instances of adjunct RPs bearing locative, comitative, ablative and dative case markers respectively:^{9 10}

⁹ The (un)grammaticality of these examples is judged differently by different native speakers. I have marked them (un)grammatical in accordance with the judgments of the majority of my informants.

¹⁰ The example in (5b) below is ambiguous between the dative and comitative readings. I assume that this ambiguity is due to the fact that the verb ‘dön-’ (to come back) has two different argument structures, the first one requires a comitative case marked NP and the second one a dative NP.

- (2) a. [CP OP_i [C' [IP *pro*_j [_{I'} kendisi-nde_i / t_i aşk-ı bul-duğ-um_j]]]]

self-LOC love-ACC find-DIK-AGR

kadın_i

woman

“the woman I found the love with her/him”

- b. [CP OP_i [C' [IP *pro*_j [_{I'} kendisi-nde_i / *t_i uyu-duğ-um_j]]]] kadın_i

self-LOC sleep-DIK-AGR woman

“The woman I slept (in her home)”

- (3) a. [CP OP_i [C' [IP *pro*_j [_{I'} kendisi-yle_i / t_i dans et-tiğ-im_j]]]] kadın_i

self-COM dance-DIK-AGR woman

“The woman I danced with”

- b. [CP OP_i [C' [IP *pro*_j [_{I'} kendisi-yle_i / *t_i arkadaş-ımız-a hediye al-dığ-ımız_j]]]] kadın_i

self-COM friend-POSS-DAT gift take-

DIK-AGR woman

“The woman with whom we bought a gift for our friend”

- (4) a. [CP OP_i [C' [IP *pro*_j [_{I'} kendisi-nden_i / t_i kurtul-duğ-um_j]]]] kadın_i

self-ABL become free-DIK-AGR woman

“The woman I became free of her”

- b. [CP OP_i [C' [IP *pro*_j [_{I'} kendisi-nden_i / *t_i para çal-dığ-ım_j]]]]

self-ABL money steal-DIK-AGR

kadın_i

woman

“The woman I stole money from (her)”

- (5) a. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} kendisine_i / t_i dön-düğ-üm_j]]]]$ kadın_i
self-DAT turn back-DIK-AGR woman

“The woman I turned back”

- b. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} kendisine_i / ?* t_i koş-tuğ-um_j]]]]$ kadın_i
self-DAT run-DIK-AGR woman

“The woman I ran (to her)”

The (a) examples in which gaps and RPs vary freely in adjunct position within the VPs contrast with the (b) examples in which only the resumptive pronoun is licensed, the corresponding gap being ruled out. The obligatory nature of the resumptive pronoun in the (b) sentences indicates an ECP violation caused by the gap in these positions, that is to say the gap is neither theta governed by the verb nor antecedent governed by the empty operator. Since the gap is in an adjunct position, it is not theta-governed by the verb, it is not antecedent governed either since there is a blocking category, a maximal projection which is not L-marked, prohibiting the gap from being antecedent governed. A possible candidate for the blocking category for antecedent government is VP since it is not L-marked by the INFL node that governs it. Therefore, the gap is not properly governed and violates ECP.

In view of the ECP violations of the (b) sentences in the above examples, the grammaticality of the occurrence of the gap in the corresponding (a) sentences needs to be explained. At this point, two possible alternative explanations will be posited. The first is to assume that while the adjunct phrases in the (b) sentences are adjoined

VP-internally, in the (a) sentences they are adjoined VP-externally. Thus, in the (a) sentences the gap in an externally adjoined adjunct phrase is available by means of antecedent government by the moved empty operator. Although this assumption seems to explain the structures on hand, it falls short of accounting for why there should be a difference in the adjunction positions of the two adjunct phrases which seemingly have the same thematic relation in the (a) and (b) sentences.

A second possible explanation is that the gap and RPs in the (a) sentences in (2-5) are in fact in a complement position, i.e. that the verbs in these sentences subcategorize for these NPs. Thus the verb ‘bul-’(to find) in (2a) is a three-place predicate rather than a two-place predicate and the verbs ‘dans et-’ (to dance), ‘kurtul-’ (to get free), ‘dön-’ (to go back) in the (a) sentences of (3-5) respectively are two-place predicates rather than one-place predicates. Therefore the corresponding RPs within these VPs are not adjuncts but inherent complements of the verbs. The licensing of the gap in the second complement in (2a) can be explained within Larson (1988)’s VP-shells analysis for double object constructions. In (2a), the verb raises into higher VP slots, therefore the second complement can be theta-governed by the verb. Whether it is Assumption I or II, or whether in fact there is another explanation that accounts for these structures needs further investigation which lies beyond the scope of this thesis.

For the optional occurrence of comitative case marked resumptive pronoun in (3a), we argue for the presence of a null postposition ‘birlikte’ (together) which case assigns it. Lexical properties of this postposition assign the agentive theta role to its

complement while the subject receives its theta-role from the verb. Since it is theta-governed, a gap in this position can vary with a resumptive pronoun.

Thus, the syntactic and semantic features associated with the lexical properties of the predicates play a crucial role in the behavior of case marked RPs in VPs. The thematic structures of the verbs and their semantic relations with the NPs in their domain seem to provide a systematic explanation for the different behavior of the RPs. Syntactic and semantic properties of the predicates in sentences (2-5) need further investigation which is beyond the scope of this thesis.

1.3.2.2. RPs in PPs

The second type of adjunct structures in which the RPs behave differently from the gaps in the corresponding position are postpositional structures. Turkish possesses two types of postpositional phrase structures: (i) those headed by a postposition, (ii) those that externally correspond to an NP structure.

(6a-b) below are examples of postpositional phrases headed by a postposition. They provide evidence for the fact that a resumptive pronoun occurs obligatorily if it is the complement of a postposition. In fact, relativization out of postpositional constructions by a gapping strategy is not possible, indicating that Turkish does not allow postposition stranding.¹¹

¹¹ See Kornfilt (1984:98 footnote 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 subadjacency.

- (6) a. [CP OP_i [C' [IP *pro*_j [_{l'} [_{PP} *kendisi-ne*_i¹² göre] hasta ol-duğ-um_j]]]]
- self-DAT according ill be-DIK-AGR

*kadın*_i

woman

Intended reading: “The woman according to whom I am ill”

- b. *[[CP OP_i [C' [IP *pro*_j [_{l'} [_{PP} *t*_i göre] hasta ol-du-ğum_j]]]]] *kadın*_i
- according ill be-DIK-AGR woman

Intended reading: “The woman according to whom I am ill”

The obligatory nature of the resumptive pronoun in (6a) indicates that the corresponding gap violates the ECP. The complement ‘kendisine’ (to him-/her-self) of the postposition ‘göre’ (according) is realized as a resumptive pronoun. As can be noted by the ungrammaticality of (6b), on the other hand, the occurrence of resumptive pronoun is obligatory, i.e. the gap in the corresponding position is not allowed.

The ungrammaticality of the corresponding gap is explained by the fact that postpositional phrases in Turkish are barriers to external government. Although the verb *m*-commands the postpositional phrases, i.e. the gap is within the domain of the VP, the PP blocks the verb from governing its complement lexically. Thus the trace

¹² Although Kornfilt (1997) notes that the regular personal pronoun cannot be used as a resumptive pronoun, while it can be used to express anaphoric relationships across clauses, according to some native speakers, a regular personal pronoun ‘on-a’ (to him/her) in this context and also in (8a) in this chapter is grammatical.

of the empty operator cannot be licensed by the ECP, giving rise to the ungrammaticality (6b).

Postpositions with an external NP structure in Turkish differ from canonical PPs in that they exhibit a different behavior with respect to the optional vs. obligatory occurrence of RPs as postpositional complements. PPs with an external NP structure, following the insights of Kornfilt (1984), fall into two sub-categories: (i) those that behave as NPs and (ii) those that behave as PPs.¹³

RPs are optional with the postpositions ‘hakkında’ (about), ‘uğruna’ (for the sake of) and ‘tarafından’ (by) as illustrated in (7a-d).¹⁴

¹³ Lewis (1967) draws a similar distinction between postpositions in Turkish: (i) primary postpositions, and (ii) secondary postpositions. I will discuss this issue later in this section.

¹⁴ One can question the difference between the structures in (7a-d) and the regular nominal structures in Turkish. Despite the overt similarity between the structures in (7a-d) and other nominal structures, there is a difference between them as illustrated below. (7a) repeated here as (i) includes a postposition with external NP structure and (ii) is a regular NP structure. Although the resumptive pronoun ‘kendisinin’ in the complement position of the postposition with external NP structure in (i) can both be assigned genitive and nominative case, it can only be assigned genitive case in a regular nominal structure in (ii).

- (i) [CP OP_i [C' [IP *pro*_j [I' [PP *kendisi*_i / -nin_i hakk-ın-da] iyi şey-ler düşün-
self -GEN about-AGR-LOC well thing-PL think
düş-üm_j]]]] kadın_i
DIK-AGR woman
Intended reading: “The woman about whom I think highly”

(7) a. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} kendisi_i \text{ hakk-ın-da}] \text{ iyi şey-ler düşün-}]]]]$
 self about-AGR-LOC well thing-PL think

$düş-üm_j]]]]$ kadın_i

DIK-AGR woman

Intended reading: “The woman about whom I think highly”

b. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} t_i \text{ hakk-ın-da}] \text{ iyi şey-ler düşün-düş-}]]]]$
 about-AGR-LOC well thing-PL think-DIK-

$üm_j]]]]$ kadın_i

AGR woman

Intended reading: “The woman about whom I think highly”

c. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} kendisi_i \text{ uğr-un-a}] \text{ öldüğüm_j}]]]]$ kadın_i
 self sake-AGR-DAT die-DIK-AGR woman

“the woman for whom I die”

d. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} t_i \text{ uğr-un-a}] \text{ öl-düş-üm_j}]]]]$ kadın_i
 sake-AGR-DAT die-DIK-AGR woman

“the woman for whom I die”

(ii) $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{NP}^* kendisi_i / -nin_i \text{ araba-(s)ın-a}] \text{ bin-diğ-im_j}]]]]$ kadın_i
 self -GEN car-AGR-DAT get on-DIK-AGR woman

Intended reading: “The woman whose car I get on”

As the examples in (i) and (ii) above indicate, those two structures are different with respect to the case assignment properties of the Agr element in two structures.

In (7a), the postpositional head ‘hakkında’ (about) has an external NP structure (it has a possessive agreement morpheme which is typical of nominal inflection). The postposition takes its resumptive pronoun complement ‘kendisi’ (him-/her-self) and this pronoun alternates with a corresponding trace. Looking at the examples in (6a-b) the pronoun / trace alternation in this case is expected to be ruled out in favor of the resumptive pronoun due to ECP reasons and the fact that Turkish does not allow postposition stranding. However, the structure is not ungrammatical, both antecedent-resumptive pronoun and antecedent-trace relations are well formed. Following Kornfilt (1984:94-96), I claim that the PP in (7a) is not a Noun Phrase, but a genuine PP which bears a possessive agreement marker. Since it bears an agreement marker, it can be stranded.¹⁵ All the postpositional phrases in (7a-d) have a postpositional head which bears an agreement marker, so their resumptive pronoun complement can be stranded, i.e. it can alternate with the trace. For the grammaticality of the gap in these postpositional constructions, it can also be assumed that these PPs are in fact, AgrPPs headed by an overt agreement marker. Being an AgrPP, it is not a blocking category for outside government. Therefore, the gap in the complement position is available for antecedent government by the operator in Spec-CP.

Examples (8a-d), on the other hand, illustrate that the postpositions ‘dışında’ (except), ‘yüzünden’ (because of), ‘bakımından’ (with respect to), ‘yanısıra’

¹⁵ Kornfilt (1984:98) provides the following explanation for the cases in (7a-d):

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

(alongside) and ‘yönünden’ (according to) do not allow a gap in their complement position:

(8) a. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} kendisi-nin_i dıř-in-da] kimse-yi$
 self-GEN except-AGR-DAT anyone-ACC
 $sev-me-diğ-im_j]]]]] kadın_i$
 love-NEG-DIK-AGR woman

“the woman I don’t love anyone except her”

b. $*[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} t_i dıř-in-da] kimse-yi sev-me-$
 except-AGR-DAT anyone-ACC love-NEG-
 $diğ-im_j]]]]] kadın_i$

DIK-AGR woman

“the woman I don’t love anyone except her”

c. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{NP} parti-de] [_{PP} kendisi-nin_i yüz-ün-den]$
 party-LOC self-GEN because-AGR-DAT
 $kimse-yi gör-me-diğ-im_j]]]]] kadın_i$

anyone-ACC see-NEG-DIK-AGR woman

“the woman I didn’t see anyone because of her”

d. $*[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{NP} parti-de] [_{PP} t_i yüz-ün-den] kimse-yi$
 party-LOC because-AGR-DAT anyone-ACC
 $gör-me-diğ-im_j]]]]] kadın_i$

see-NEG-DIK-AGR woman

“the woman I didn’t see anyone because of her”

In (8a), the postposition ‘dışında’ (except) takes as its complement a resumptive pronoun ‘kendisinin’ (him-/her-self’s). Unlike the corresponding structure in (7a), the resumptive pronoun in (8a-d) does not alternate with a corresponding gap. Note that the example in (8b) and (8d) are ungrammatical. If the generalization of the PPs with an external NP structure is that they allow RPs to vary with gaps, we expect the resumptive pronoun in (8a) and (8d) to alternate with the trace. However, as the ungrammaticality of the examples (8b) and (8d) indicates, it does not hold.

For the postpositional phrases in (8a-d), I assume that these PPs with external NP structure behave as nominal clauses in that the corresponding gap in their complement position is ruled out. Although they have the same surface structure with those in (7a-d), they behave differently from the former in not allowing their complements to vary with gaps. The gap in the complement position is ruled out since the ECP is violated i.e. the gap is not properly governed due to the fact that NPs, just like PPs are barriers for outside government.¹⁶

The data presented above further support the distinction made by Lewis (1967:85-95) for postpositions in Turkish. According to Lewis, there are two types of postposition 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 secondary postpositions do allow. Therefore the optional vs. obligatory use of RPs as postpositional complements can be used as a test to determine whether a postposition is a primary or a secondary one. ‘hakkında’

¹⁶ See Kornfilt (1984:275) for further discussion. She argues that NPs, PPs and S are bounding nodes in Turkish.

and ‘uğruna’ are secondary postpositions since they allow a gap in their complement position, whereas ‘dışında’ and ‘yüzünden’ are primary postpositions and do not allow a gap in their complement position.

In this chapter, I provided the definition and the basic properties of the RPs. I discussed the basic facts regarding the distribution of RPs in Turkish relative clauses by considering their occurrence in a number of syntactic environments including internal and second complement positions, postpositional complement positions, adjunct position and subject positions.

The Chapter 2 will introduce the theoretical framework and previous studies on RPs and resumption phenomena. Three different strategies for resumption will be discussed and previous studies will be summarized. Some crosslinguistic facts will also be investigated in Chapter 2.

The task of Chapter 3 is to discuss the relative clause formation strategies in Turkish. It will be pointed out that two strategies, operator movement analysis of Chomsky (1977) and Kayne’s (1994) Head Raising are used to derive Turkish relative clauses. It will also be discussed whether these two strategies result in a complementation or an adjunction structure with respect to the head they modify.

In Chapter 4, I will discuss the nature of A’-Dependency between the resumptive pronoun and its antecedent. The semantic differences between RPs and traces, the behavior of RPs with Condition C effects, coordination and parasitic gap constructions will be investigated. The nature of movement, island phenomenon,

highest subject problem and antecedent problem will also be introduced and discussed in detail.



CHAPTER II

THEORETICAL FRAMEWORK

This chapter introduces the theoretical framework according to which this thesis is developed. The basic strategies for the resumption and RPs will be discussed and some core points of the previous studies will be summarized. It will be pointed out that the analysis of RPs will help to determine the features of the computational system and the interfaces, which is a central question of generative grammar.

2.1. Generative Theory

The generative framework introduced by Chomsky (1957, 1965, 1981, 1982, 1986, 1995) is adopted in the analysis. This theory assumes a set of principles that regulate the nature of possible linguistic structures in all human languages. For language specific properties, crosslinguistic variations are attested by parameterization.

RPs were first analyzed within the generative theory by Ross (1967) and Perlmutter (1972) (cited in Boeckx 2003). Since then, a wide range of analyses have been proposed to define the relations between the RPs and their antecedent as RPs are ideal testing grounds for the principles of locality, subjacency and islandhood. As pointed out in Boeckx (2003:14) depending of the true nature of the RPs, constraints on movement will have to be seen as part of narrow syntax or as part of the PF component of the grammar. If RPs have no semantic content and are introduced to the derivation merely as blocker of the violation of some syntactic principles, we

should treat them as elements in PF branch of the grammar. If RPs have their own semantic content and their use violates some syntactic principles, on the other hand, we have to consider them as elements in narrow syntax, that is what is claimed for Turkish RPs in this study. Therefore, studies on resumption provide evidence in determining the organization of the grammar and the interface levels.

2.2. Strategies of resumption

Resumption and RPs have received vast attention within the generative literature. A number of works dealing with the properties of RPs and related subjects like island constraints, wh-movement, chain formation, strong and weak crossover, derivation, representation, anaphora, bound variables and parasitic gaps have contributed to the understanding of the behavior of the referential elements in language. The core point of these studies (Mc Closkey 1990, Shlonsky 1992, Safir 1996, Aoun, Choueiri & Hornstein 2001 among others) is that they provide three basic analyses of resumption and RPs: (i) base-generation approach, (ii) movement strategy, (iii) last resort strategy. The first two strategies imply that RPs occur in narrow syntax, the antecedent is either moved to some position or base generated to bind the resumptive pronoun which is an instance of A'-Binding. The third strategy, on the other hand, implies that RPs exist in the PF-branch of the grammar, the A'-movement takes place and the resumptive pronoun is inserted in the position in which movement is proposed to occur at the level of PF to rescue some syntactic principles violated by the A'-movement.

Base generation hypothesis argues that RPs are base generated pronominals that are not bound by an antecedent which is also base generated in its surface position. Therefore, they are not variables. Movement strategy implies that in some languages, RPs behave like gaps and for this reason should be considered as resulting from movement rather than being base generated. Last resort strategy argues that RPs had to be inserted to make legitimate the improper trace. It serves as a repairer of derivations by overcoming the wh-island effects.

2.2.1. Base generation hypothesis

Within the Government and Binding Theory and the Principles and Parameters Model, it is assumed that the A'-dependency formed with a resumptive pronoun is not an instance of move- α since it does not obey subjacency. Chomsky (1982) treats RPs as base generated pronominals which retain their status as pronominals where Binding Theory applies. Therefore, a resumptive pronoun is not a variable at S-Structure, but becomes a variable at LF. There is no free indexing procedure for A'-positions at S-Structure and if a given category is not A'-bound at S-Structure it is not defined as variable. Base generated RPs are limited to the predication structures.

Mc Closkey (1990) provides a complete and systematic distribution of RPs and their behavior in Irish under various tests like Condition B and C effects (strong or weak crossover effects). He deals with questions such as whether RPs are properly construed as syntactic variables, what the antecedent is which binds the resumptive pronoun and whether the A'-chains that bind RPs are visible as S-Structure or D-Structure phenomena. By looking at the RPs and Condition C effects, he argues that

RPs are syntactic variables (elements that are syntactically bound and whose most immediate binder is an element in an A'-position) bound by a null operator which is base generated in Spec-CP position. The chain formation rule that binds a resumptive pronoun to a null operator can apply at any level. He concludes that RPs, being variables, are subject to Condition C. However, they are also, being pronouns, subject to disjointness requirement that holds in the domain of A'-binding. The following example (1) is from Mc Closkey (1990:212 example 36) for Irish:

- (1) Sin an fear ar dhúirt an bastard go maródh sé muid
 that the man COMP-pro said the bastard COMP would kill he us
 “that is the man that the bastard_i said he_i would kill us”

The example (1) above is ungrammatical. The ungrammaticality of the example is due to the fact that the resumptive pronoun ‘sé’ (he) is coindexed with and c-commanded by the epithet ‘bastard’ in an A-position which is an instance of strong crossover violation. Since an element is considered as a variable if it exhibits strong crossover violation, Mc Closkey argues that the RPs are syntactic variables in Irish.

Mc Closkey (2002) investigates the successive cyclic effects in Irish and the distance in which long A'-movement and long A'-binding apply. Mc Closkey provides three types of C in Irish: C whose specifier is filled by Move is realized as ‘aL’ (the wh-item is moved to the Spec-CP position), C whose specifier is filled by merge is realized as ‘aN’ (there is no wh-movement) and C, whose specifier is not filled, is realized as ‘go’ as the examples in (2a-c) below indicate respectively: (from Mc Closkey, 2002:189 examples 9a-b and 8 respectively)

- (2) a. an ghirseach a ghoid na síogaí t
 the girl aL stole the fairies
 “the girl that the fairies stole away”
- b. an ghirseach a-r ghoid na síogaí í
 the girl aN-PAST stole the fairies her
 “the girl that the fairies stole away”
- c. Creidim gu-r inis sé bréag.
 I-believe go-PAST tell he lie
 “I believe that he told a lie.”

The example (2a) includes the trace of the wh-movement and the COMP is realized as ‘aL’, the A’-chain terminates in a trace. In (2b), on the other hand, there is no wh-movement and the COMP is realized as ‘aN’, the A’-chain terminates in a resumptive pronoun. (2c) in which the COMP is realized as ‘go’ indicates the absence of A’-binding.

Thus, the difference between the clauses headed by ‘aL’ and clauses headed by ‘aN’ signals an application of wh-movement in the former and no application of wh-movement in the latter. Then he assumes that in resumptive pronoun structures, Spec-CP is occupied and a resumptive pronoun appearing in A’-binding structure is never created by movement since the RPs trigger the ‘aN’ type complementizer. For the possibility of the combination of these different types of relative clauses, he argues that UG must allow for the existence of composite chains, complex chains in which some pair-wise links are negotiated by way of movement and some are

negotiated by way of binding of a resumptive element. The system seems to allow completely blind and opportunistic choices at each phase of the derivation.

2.2.2. Movement Strategy

Studies on various languages suggest that RPs behave like gaps and for this reason should be considered as resulting from movement rather than being base generated (Zaenen, Engdahl & Maling (1981) for Swedish, Bondaruk (1995) for Polish, Aoun, Choueiri & Hornstein (2001) for Lebanese Arabic and Boeckx (2001) for various languages.

Zaenen, Engdahl & Maling (1981) argue that the binding relation between a wh-element and a resumptive pronoun is, at least in some languages, of the same nature as the binding relation between a wh-element and a trace. By looking at reflexivization and coordination in Swedish, they conclude that the use of a resumptive pronoun does not reflect a switch from syntactic binding to anaphoric binding. The fact that RPs are typically used in syntactic islands cannot be due to a difference in the type of binding involved. Example (3) below from Zaenen, Engdahl & Maling (1981:681 example 9) includes a coordination of two VPs in Swedish:

- (3) Där borta går en man_i som jag [ofta traffar t_i] men [inte minns vad
 there goes a man that I often meet but don't remember what
 han_i heter]
 he is called

In (3) above two conjuncts are VPs. They assume that wh-movement or relative deletion must apply across-the-board to an identical element in both conjuncts. Therefore, example (3) is derived by the wh-movement or relative deletion in each conjunct.¹ In one case the trace is realized as a gap and in the second as a resumptive pronoun. Therefore, RPs in Swedish behave like gaps and for this reason should be treated as resulting from movement, rather than being base-generated.

Bondaruk (1995) investigates the distributional properties of RPs in Polish. She argues that there are two kinds of RPs in languages:

- a. base-generated, characteristic of languages like English or French,
- b. phonetic spell-outs of traces, characteristics of languages like Vata or Swedish.

The first type appears within islands since they are immune to island constraints. The second type obeys Subjacency conditions and behaves like syntactic variables. She concludes that Polish RPs are not limited to cases of Subjacency violations as they are in English, but can also appear in special types of relative clauses which are particularly common in colloquial Polish. She also argues that Polish requires the application of S-structure free indexing procedure both to A'- and A- positions. RPs in Polish are A'-bound at S-Structure by an abstract operator whose occurrence in an A'-position may result either from movement or base-generation. Example (4) below

¹ Zaenen, Engdahl & Maling (1981) argue that the structure in the example (3) can both be derived by relative deletion and wh-movement. In this thesis, on the other hand, similar coordination structures in Turkish are analyzed as operator movement (See section 4.2.2).

includes a parasitic gap construction in Polish in which the resumptive pronoun ‘go’ (it) licenses the parasitic gap: (Example from Bondaruk 1995:52 example 68)

(4) To jest ten list, co go Piotr wyrzucił bez przeczytania *e*.

this is this letter what it Peter threw away without reading

“This is the letter that Peter threw (it) away without reading”

Since the parasitic gap must be licensed by another gap which is a variable at the level of S-Structure, Bondaruk concludes that the resumptive pronoun ‘go’ is variable since it acts as the licenser of the parasitic gap. Note that the RPs in Polish can have nonhuman referent as the example above shows, whereas in Turkish they must have human referents.²

Willis (2000) studies the distribution of RPs and wh-traces in Welsh. He argues that despite the appearance of agreement, which seems to license a null resumptive pronoun, relative clauses may involve movement. Both movement and non-movement strategies are available for some syntactic positions and separate constraints must be established for the distribution of each. Based on the types of relative clauses and a set of data including both literary works and spoken sources, Willis argues that constraints on the distribution of wh-traces and RPs are independent of one another, and the two strategies can co-exist in some syntactic environments. He reaches a conclusion suggested by the overlapping distribution of RPs and wh-traces in Welsh which says resumption strategy should not be considered merely as a last resort strategy used when all else fails, rather, it must be subject to licensing conditions of its own.

² See section 4.2.3 for the discussion of parasitic gap constructions in Turkish.

Aoun, Choueiri & Hornstein (2001) argue that certain constructions 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 (apparent resumption). Then they give special conditions for this apparent resumption:

- a. This movement cannot cross an island boundary.
- b. When the apparent resumptive is not a strong pronoun (tonic pronoun) or an epithet phrase,³ the relation between the launching site and the apparent resumptive element is apposition. This excludes certain quantifiers from occurring in the launching site of such constructions.
- c. When the apparent resumptive is a weak pronoun,⁴ the movement position is the specifier of the weak pronoun. This does not exclude quantifiers.
- d. The hypothesis that movement is involved in apparent resumption contexts is supported by reconstruction effects.

³ Strong pronouns in Lebanese Arabic are pronouns which occur as independent morphemes. They usually occur in subject position. Epithet phrases are NPs like 'poor guy', 'fellow' which seem to act like pronouns. 'the poor fellow' in the example (i) below from Haegeman (2001:243) is an epithet phrase:

- (i) I saw the president on TV last night and *the poor fellow* was tired.

⁴ 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.

Examples (5a-b) below indicate apparent resumption contexts. In (5a), a strong pronoun ‘hiyye’ (she) is used as a resumptive pronoun which has a non-quantificational antecedent and there is no island between the resumptive pronoun and its antecedent. In (5b) on the other hand, the use of the same strong pronoun resumptively is ungrammatical since its antecedent is a quantificational expression: (Examples from Aoun, Choueiri & Hornstein 2001:375 examples 10 and 12 respectively)

- (5) a. ha-l-muttahame ʕərfto ʔənnə hiyye nħabasit

this-the-suspect-SF know-2p that she imprisoned-3SF

“This suspect, that you know she was imprisoned.”

- b. *kəll muttahame ʕərfto ʔənnə hiyye nħabasit

each suspect-SF know-2p that she imprisoned-3SF

“Each suspect, that you know she was imprisoned.”

They also argue that certain constructions that appear to involve resumption by a pronoun or an epithet phrase actually do involve resumption. No movement takes place from the position of the pronoun or the epithet phrase. An A'- antecedent binds the resumptive element. This is called true resumption. The conditions under which true resumption occurs are:

- a. The antecedent-resumptive relation may cross an island boundary.
- b. In fact, it must cross an island boundary.

- c. Quantifiers are not excluded from being A'- antecedent of true resumptive elements.

The examples (6a-b) below illustrate true resumption in Lebanese Arabic. In (6a), the strong pronoun 'hiyye' used as a resumptive pronoun has a non-quantificational antecedent. Since there is a wh-island between the resumptive pronoun and its antecedent, there is no movement. The antecedent binds the resumptive pronoun. In (6b), the antecedent of the resumptive pronoun is a quantificational expression. Unlike (5b) above, the structure is grammatical since the RPs in true resumption cases can have quantificational antecedents. (Examples from Aoun, Choueiri & Hornstein 2001:375 examples 11b and 13a respectively)

- (6) a. ha-l-muttahame badkun taʕrfo miin bifakkir ʔanno hiyye

This-the-suspect-SF want-2p know-2p who think-3SM that she
 harabit
 run away-3SF

“This suspect you want to know who thinks that she run away”

- b. kəll muttahame badkun taʕrfo miin bifakkir ʔanno hiyye

each suspect-SF want-2p know-2p who think-3SM that she
 harabit
 run away-3SF

“Each suspect you want to know who thinks that she run
 away”

Relating RPs to their antecedents via movement is preferable to relating them via binding. This reflects that true RPs are licit only if apparent RPs 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 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.

Boeckx (2001) studies mechanisms of chain formation and provides a broad picture for the nature of resumption. His aim is to provide a theory for the assumption that resumption is last resort and can only be embraced once a theory of islands is available. Boeckx develops a movement approach to resumption that treats true RPs as stranded elements. He claims that true RPs are definite determiner heads stranded under A'-movement. They form a constituent with their antecedents upon first Merge. Resumption chains are the results of stranding under A'-movement. Boeckx concludes his study by arguing that neither a base-generation analysis of resumption nor a 'resumptive pronoun as lexicalized trace' analysis can cover the whole range of properties of resumptive elements. A stranding analysis provides a unified analysis of resumption across languages. Boeckx's movement strategy is the first movement theory of resumption which can account for the island insensitivity problem of RPs.

Ouhalla (2001) tries to investigate the question of whether parasitic gaps, on the view that they are null pronouns, are or are not instances of RPs and concludes that parasitic gaps are indeed instances of RPs. He argues that the interpretation of RPs cannot be said to involve a mechanism of free-indexing. The properties of the RPs

are more consistent with the view that the interpretation of a resumptive pronoun involves movement of the resumptive pronoun to its *wh*-antecedent. He makes a distinction between the weak and strong pronouns in Moroccan Arabic and argues that only weak pronouns can function as a resumptive pronoun, unlike Aoun, Choueiri & Hornstein (2001) who argue that both strong and weak pronouns can function as RPs.

2.2.2. Last Resort Strategy

In order to surmount the island violation, it was generally assumed that a resumptive pronoun had to be inserted to make legitimate the improper trace referred to the last resort strategy⁵ argued by Shlonsky (1992). It serves a repairer of derivations by overcoming the *wh*-island effects. After the Minimalist Program was introduced by Chomsky (1993, 1995), economy considerations began to play a crucial role in derivations of linguistic structures. For reasons of economy, it is postulated that the resumptive pronoun surfaces only when the derivation with the trace is illicit (Mc Daniel & Cowart, 1999).

⁵ Since Chomsky (1977), it is assumed that the rule for the generation of RPs in the example (i) below constitutes a last resort operation designed to overcome an otherwise ungrammatical derivation: (Example from Safir 1986:684)

- (i) the guy who we wondered whether he / *t was sane

In (i) above the use of the resumptive pronoun is merely to block the otherwise illicit structure as the ungrammaticality of the trace illustrates. Rizzi (1990:123 footnote 25) suggests that the insertion of RPs is best analyzed as a kind of last resort operation to rescue the violation of some grammatical constraints.

Shlonsky (1992) studies the distribution of RPs in relative clauses in Hebrew and Northern Palestinian Arabic. Shlonsky argues that there is no independently occurring resumptive strategy, and RPs can occur as a last resort when wh-movement fails to yield a grammatical output. According to Shlonsky the investigation of their distribution should not focus on where RPs are allowed to occur, but rather on where wh-movement is blocked. Example (7a-b) below from Shlonsky (1992:450 example 15a-b) illustrate the use of the resumptive pronoun as a last resort operation to save the violation of Coordinate Structure Condition:

- (7) a. ha-ʔiʃ ʃe-Ruti ve-*hu* ʔohavim kesef
 the-man that-Ruti and-*him* love money
 “the man that Ruti and him love money”
- b. *ha-ʔiʃ ʃe-Ruti ve-*t* ʔohavim kesef
 the-man that-Ruti and- love money
 “the man that Ruti and love money”

The example in (7b) is ungrammatical since the movement leaves a gap inside the coordinate subject violates the Coordinate Structure Condition. This ungrammaticality is rescued by the use of a resumptive pronoun in (7a) which is an instance of last resort operation.

Shlonsky also argues that the resumptive pronoun comes to be a variable (comes to be bound by an operator in an A'- position) only in LF. The base-generated resumptive pronoun is licensed as a regular (unbound) pronoun at S-Structure and as

a bound pronoun in LF. Therefore, they are variables in LF and A- free at S-Structure.

Safir (1996) claims that RPs are neither A- bound nor derivationally A'- bound. Alternatively, he argues that resumptives are ?- bound which is just like A'- binding except that it is non-derivational but significant at LF. He states that the theory, to satisfy the open sentence requirements of relatives, must permit two types of chains: A'- binding, derived by movement and ?- binding. Then he reduces ?- binding to a more abstract notion of A'- binding and proposes two sub-cases for A'- binding: derivational A'- binding and representational A'- binding.

A'- binding : X A'- binds Y if, X is an A'- position and X binds Y.

a) dA'- binding: X dA'- binds Y if, X A'- binds Y and Y is the trace of X

b) rA'- binding: X rA'- binds Y if, X A'- binds Y and Y is not a trace of X

Hence, Safir comes close to what Shlonsky argued: RPs are inserted as a last resort when the relative clause cannot be derived by movement.

Mc Daniel & Mc Cowart (1999) provide evidence for a minimalist account of English type RPs. They argue that RPs are spell-outs of traces,⁶ they surface only

⁶ The use of RPs as spell-outs of traces implies that RPs occur at the PF branch of the grammar. They are inserted in the derivation to save the violation of some syntactic principles. Thus; in this thesis, I

when the derivation with the trace is precluded by syntactic principles. In their experimental study, they test their predictions by conducting an acceptability judgment task with 36 native speakers of English. Results of the tests prove their prediction: subjects prefer RPs over the trace itself in cases where it is illicit, but not in cases where only the movement operation is illicit.

Mc Kee & Mc Daniel (2001) focus on RPs in English speaking children's and adults' relative clauses. In their experimental study, the adult data confirm the description of RPs in English as a saving device that is captured in their spell-out account. According to their account, RPs in a relative clause improve as they get farther from the relativized head (cf. footnote 6). The examples (8a-b) below illustrate this pattern:

- (8) a. That is the girl that I like *her / t.
 b. That is the girl that I don't know what she / *t did.

In (8a) above, although the trace is grammatical, the resumptive pronoun is not. In (8b), on the other hand, the resumptive pronoun is grammatical and the trace is not. Mc Kee & Mc Daniel (2001) note that in their study adults produced accepted RPs in unextractable sites, but not in extractable sites. Their children data presents a more complex picture. Although children accept resumptives in extractable positions more than adults did, they show adult like pattern. Mc Kee & Mc Daniel explain children's

will use the spell-out account and the last resort strategy interchangeably since their implications are similar to each other.

overacceptance of RPs in extractable positions with a parsing account. Following the research on the role of clauses in memory limitations, they suggest that when a clause containing an antecedent is shunted out of active memory, the resumptive pronoun sounds better. Thus, when the adult parser meets the third clause in a sentence, it pushes the most complete of the two previous clauses out of active memory. If this shunted clause contains the filler for a later gap, the gap's interpretation might in some sense be difficult. This shunting occurs when a third clause is reached for adults, whereas for children shunting might occur one clause earlier.⁷

Other works deal with the different aspects of the RPs and related subjects in languages. Kempson, Edwards & Meyer-Viol (1998) investigate the interaction between relativization and RPs. They address the problem of how long distance dependency effects and anaphora resolution interact in relative clauses in English and Egyptian Arabic. They argue that crossover phenomena and the different functions of RPs in the two languages can be explained in terms of the interaction between the step by step processing of long distance dependency structures and anaphora.

Suner (1998) studies resumptive restrictive relatives in a cross-linguistic fashion. She argues for two types of resumption strategy: syntactically motivated last resort side that serves to repair derivations by overcoming wh-island effects and the non-

⁷ Although Mc Kee & Mc Daniel (2001) provides an explanation based on a parser account for the differences between the children and adult data, they note that an explanation based on the differences between 'competence' and 'performance' can also be argued for. Moreover, learnability issues come into play here too. Since there is no particular study on the acquisition of RPs in Turkish, I will not discuss this issue and leave it for future investigations.

syntactic one that manifests itself even in the absence of islands. In this second case, RPs are not last resort because at the LF interface the corresponding null elements are adequately licensed and interpretable because of their inherent features. She argues that diverse languages (Spanish, English, Yiddish, Hebrew, Palestinian Arabic, Irish and Welsh) appeal to the non syntactic resumptive pronoun strategy. The major difference among languages is the product of the features of the relative complementizer.

Sharvit (1999) discusses the role of traces and RPs as triggers of functional/pair list reading of Hebrew restrictive relative clauses. She argues that the type of sentence which embeds the relative clause affects the binding options inside it. A relative clause formed of a chain that ends in a trace triggers functional/pair list readings. On the other hand, a relative clause formed in a chain that ends in a pronoun needs to be embedded in an equative sentence in order to trigger such readings⁸. Therefore Sharvit claims that RPs require salient discourse antecedents. She further argues that previous analyses which attempt to derive the pronoun/trace alternation from syntactic principles alone fail to account for the equative/non equative contrast.

⁸ When a trace in a relative clause is c-commanded by a quantificational antecedent, the sentence is ambiguous between a 'single individual' and a 'multiple individual' interpretation. However, if the trace position is filled by a resumptive pronoun, the multiple individual reading is not available. Following this contrast, Sharvit argues that there is a fundamental difference between traces and RPs, in that the latter resists multiple individual interpretation. These semantic differences between RPs and traces in Turkish relative clauses will be discussed in section 4.1.

2.4. Conclusion

The chapter introduced the theoretical framework adopted in the thesis and summarized some of the core points in relevant literature. Three basic approaches for the resumption and RPs were introduced: (i) base-generation approach, (ii) movement strategy, (iii) last resort strategy. It was pointed out that the first two approaches imply that RPs should be treated as elements in narrow syntax, the antecedent which binds the resumptive pronoun (A'-binding) is either moved to some position or base generated in its surface position. In contrast, the third strategy implies that RPs should be considered as elements existing in the PF-branch of the grammar, the A'-movement takes place and the resumptive pronoun is inserted in the derivation as a spell-out of the trace at the PF interface to save the violation of some syntactic principles.

The discussion of the previous studies in this chapter revealed some cross-linguistic facts about the nature of resumption and RPs. As the analyses of RPs in different languages indicate, RPs in some languages behave as syntactic variables (Irish, Polish and Swedish), whereas in some others as saving device (Hebrew and English). Moreover, in some languages (Moroccan Arabic) parasitic gaps appeared to be instances of RPs. It was interesting to note that while none of the languages investigated bans the use of RPs with non-human referent, Turkish allows only RPs with human referent. The core points of the previous studies different languages introduced in this chapter will be used in next two chapters and compared to Turkish to determine the nature of resumption and RPs in Turkish.

CHAPTER III

RELATIVE CLAUSE FORMATION IN TURKISH

In this chapter, the relative clause formation in Turkish and its implications on the relationship between the RPs and their antecedents will be discussed. The basic question is which of the two analyses (empty operator movement of Chomsky (1977) or head raising of Kayne (1994)) can correctly predict the relative clause formation in Turkish and which of these two approaches can correctly explain the A'-dependency between a resumptive pronoun and its antecedent. The question of whether head-raising and operator movement analyses result in a complementation or an adjunction structure with respect to their relations to the head noun is also discussed.

Giving reconstruction effects as a diagnostic for movement (Aoun & Li, 2003:2), I will discuss the formation of different types of relative clauses including adjunct relativization, headless relative clauses, relativization of idioms and structures in which a quantified phrase (QP) in the subject position of a relative clause which binds a pronominal expression within the relativized head. Analysis of these different types of relative clauses will demonstrate that both head-raising and operator movement analysis derive (actually, these two different approaches have to be used in different types of relatives) relative clauses in Turkish. Thus, it will be argued that the two different approaches have to be proposed for the derivation of different types of relative clauses in Turkish. Indeed, languages do not strictly apply either strategy

to form their relative clauses as pointed out in Aoun & Li (2003:106-107).¹ The two competing analyses do not differ in that one of them is more plausible with respect to the nature of resumption and RPs in relative clauses than the other. The discussion on the nature of RPs presented in the next chapter is compatible with these two relative clause formation strategies. It will also be argued that Turkish relative clauses are not complementation structures but are adjunction structures.

3.1. Some properties of Turkish

Turkish is a head final, specifier initial language² and relative clauses are clear examples of this property. Predicates/verbs are clause final and inflectional affixes follow the predicate/verb. The modifier clause includes a participle derived from the verbs through various affixes such as *-(y)An*, *-DIK*, *-(y)AcAK*, *-mAz*, *-Ası*, *-(A)r* and *-mİş*. The choice of participle affix has been a question of big debate in Turkish linguistics and studies on Turkish relative clauses are mainly based on the choice of

¹ Aoun & Li (2003) argue that languages do not exclusively apply either head-raising or operator movement to derive their relative clause constructions. Both derivations are available. The choice of either option is based on morpho-syntactic properties of relative clauses and other general conditions of the grammar like reconstruction facts, the complementizer system and idiom relativization.

See also Kornfilt (2000a:125) for a discussion of the availability of two strategies. She 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.

² Kural (1997) points out that Turkish is a head final, specifier initial language which allows adjunctions to the right of the maximal projections.

participle suffix and locating relative agreement in relative clauses.³ The core point is that when relativizing a subject, *-(y)An* is used and there is no agreement morphology on the verb. It is followed by a nominal agreement marker when *-DIK* is used as pointed out in Underhill (1972) and Hankamer & Knecht (1976). Among others, Kornfilt (2000b:189-192) claims that Turkish relative clauses can be handled under a derivation of relative clauses based on Kayne's (1994) head raising approach to such constructions.⁴

3.2. The two strategies

In this section, I will discuss the two relative clause formation strategies, Operator Movement (Chomsky 1977) and Head Raising (Kayne 1994), and their implications for Turkish relativization. The properties of each derivation will be illustrated.

³ For a detailed discussion of the choice of participle affix in relative clauses see Underhill (1972), Hankamer & Knecht (1976), Haig (1997), Kornfilt (2000a and 2000b), Schönig (2000), Slobin (1986).

⁴ See Kornfilt (2000b) for relevant discussion. Kornfilt 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 C moves to the specifier position of the higher DP. The last movement yields pre-nominal modification. The detailed discussion of Kornfilt's suggestion about the relative clauses in Turkish will be given in section 3.2.

3.2.1. Operator movement and base generation of the relativized head

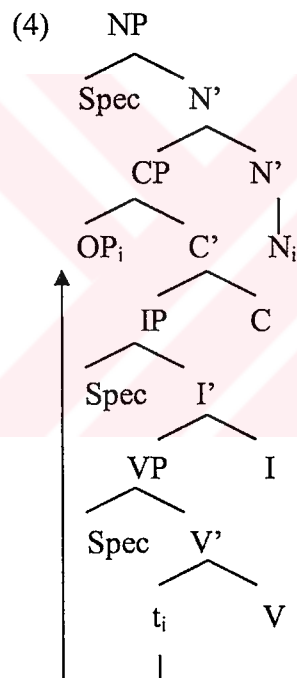
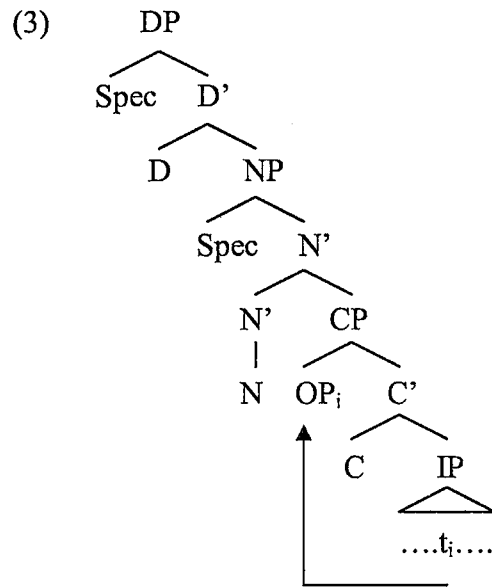
Operator movement analysis of relative clauses (Chomsky 1977) assumes that the head of the relative clause is base generated in its S-Structure position. Either a null or an overt operator moves to spec-CP position from its base position within the relative clause binding its trace or the resumptive pronoun for proper interpretation.

Chomsky (1977) suggests that relative clauses involve wh-movement like regular wh-questions and cleft constructions. These constructions contain a gap in the relative clause, island constraints are relevant and there can be a long distance relation between the moved constituent and its trace. (1) is the bracketed representation of the operator movement (matching analysis in Aoun & Li (2003)'s terminology) in English and (2) in Turkish:

(1) [DP/NP [_{Head} DP/NP_i] [CP OP_i [C' [IP..... t_i.....]]]]

(2) [NP [CP OP_i [C' [IP..... t_i.....]]] [_{Head} NP_i]]

According to the representation (1) above, in a head-initial language the relative clause CP which is an adjunct of the head N it modifies follows the head noun. In a head-final language in (2), on the other hand, the relative clause CP which also is the adjunct precedes the head noun. (3-4) below are the tree diagram representations of a relative clause derived by operator movement in English and Turkish respectively:



According to the representations in (3-4) above, the operators which are base generated within the relative clause move to the Spec-CP position and bind their traces. In both representations, the relativized head is base generated in its surface position. Note that the syntactic relationship between the head noun and the relative clause CP is an adjunction relation.

3.2.1. Head-raising analysis⁵

Kayne (1994:chp.8) argues that relative clauses are derived by the movement of the head noun from the relative clause to the Spec position of the CP argument of D. Kayne further argues that the relative clauses are complementation structures that is, D takes CP as its complement. Kayne's proposal is developed in his Antisymmetry Hypothesis which is concerned with the relation of hierarchical structure and linear order. He argues that the hierarchical structure determines linear order as in (5) below: (Linear Correspondence Axiom)

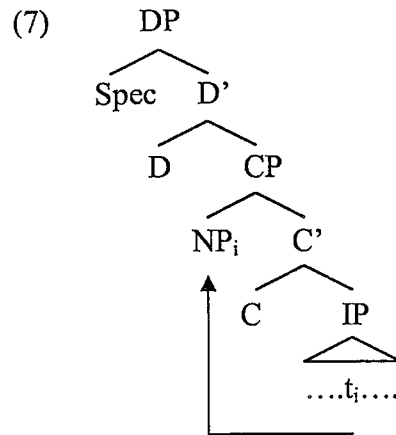
- (5) For any two non-terminals X, Y, if X asymmetrically c-commands Y, then all terminal x dominated by X precede all terminals y dominated by Y.

What Kayne proposes is a more restrictive phrase structure theory in which right adjunction is prohibited. Therefore, the adjunction analysis of English relative clauses is excluded.⁶ Below (6-7) are the bracketed and tree diagram representations of a relative clause in English respectively:

⁵ The head raising analysis of relative clauses discussed here is based on Kayne's approach within his seminal work Antisymmetry. However, a similar approach to relative clauses has been proposed before by Brame (1968), Schachter (1973), Vergnaud (1994) (cited in Alexiadou, Law, Meinunger & Wilder (2000)).

⁶ See Kelepir (1996) for a discussion of the consequences of Antisymmetry hypothesis of Kayne (1994) in Turkish and also Kural (1997) for a discussion of Linear Correspondence Axiom in Turkish.

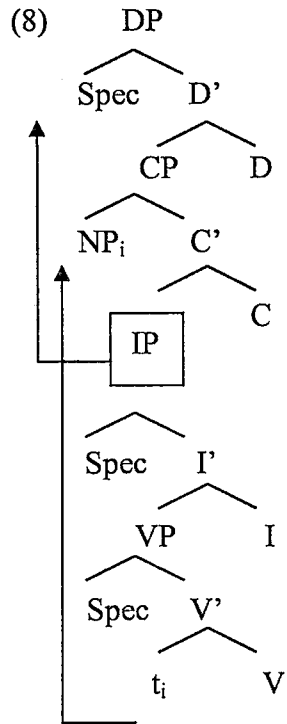
(6) [DP D [CP NP_i [C' [IP..... t_i.....]]]]⁷



As can be observed from (6-7) above, D head takes CP as its complement. The Spec-CP position is filled by the moved head noun. The head noun is base generated within the relative clause and moves to the higher position.

For Turkish, Kaynean derivation of the relative clauses is first discussed by Kornfilt (2000b). She argues that the derivation Kayne proposed for English is also involved in relative clauses of right-headed languages like Turkic languages. But there is an additional step involved: The IP complement of C moves to the specifier position of the higher DP. The last movement yields prenominal modification and is available for all types of relative clauses in Turkic languages with respect to the location of agreement markers in relative clauses. She also notes that since C head cannot strand, there is no overt C head in Turkish. (8) below is the tree diagram representation of a Turkish relative clause proposed by Kornfilt:

⁷ See footnote 4 and relevant discussion in this chapter to see how the Turkish version of this bracketed representation of the relative clause works.



As can be observed in (8) above, the formation of a relative clause proposed by Kornfilt (2000b) includes two steps. The head noun generated inside the relative clause moves to the Spec-CP position. The second step includes the movement of the entire IP to the Spec-DP position in order to yield a prenominal modification.

Kornfilt does not use the familiar diagnostics such as reconstruction effects and idiom relativization for head raising approach. Rather, she takes the fact that in right-headed (=head final) languages like Turkish, head C is not overt as evidence for her claim. Furthermore, she points out that the determiner tends to be placed between the modifier clause and the head as example (9) from Kornfilt (2000b:191 example 9) illustrates: (notations are as in Kornfilt).

- (9) [Ali'nin dükkan-dan e_i al-dığ-1]_{IP=AgrP} bu güzel çiçek_i
 Ali-GEN shop-ABL. buy-FP-3.SG. this beautiful flower
 "this beautiful flower that Ali bought in the shop"

In (9) above, IP complement of the C head moves to Spec-DP position. Since C head cannot strand, there is no overt C head. The determiner is placed between the head and the modifier clause. According to Kornfilt, this “surprising” order of the determiner with respect to the modifier clause is a natural consequence of a Kaynean derivation.

However, Kornfilt’s analysis is not without a problem. The additional movement of IP makes it higher than D. In other words, it is outside the c-command domain of D. According to Kayne, a relative clause is non-restrictive if it is outside the c-command domain of D. Therefore, Turkish relative clauses should be non-restrictive according to the derivation proposed by Kornfilt. However, Turkish relative clauses have restrictive reading.⁸ I will discuss this issue in section 3.7.1.2.

⁸ A restrictive relative clause restricts the number of possible referents of the head noun. A non-restrictive relative clause, on the other hand, conveys additional information about the head noun. Examples (i-ii) below illustrate restrictive and non-restrictive relative clauses respectively:

- (i) That is the one which I like.
- (ii) The girl, who is going to the party, has a green car.

The syntax and semantics of the two types of relative clauses have been the subject matter of a number of investigations. For Japanese, it was argued by Kameshima (1989) that the restrictive relative clauses in Japanese involve movement of the null operator while non-restrictive relative clauses do not. See also Safir (1986) for a discussion.

3.3. Reconstruction effects⁹

Languages differ in that they show different patterns with respect to reconstruction which is used as a diagnostic for the movement of the head noun in relative clauses. Some languages exhibit reconstruction effects both for binding requirements and for scope relations. Some others, on the other hand, show reconstruction effects only for binding requirements.¹⁰ It will be argued in this section that Turkish relative clauses exhibit reconstruction effects with respect to both binding properties of bound pronominals by their quantificational antecedents and scope relations between two QPs, one in the subject position of the relative clause and the second in the head noun position. Therefore, it can be argued that relative clauses can be derived by a head raising analysis.¹¹

⁹ Reconstruction is a syntactic process by which a moved phrase (the head noun in this study) is placed back to a previous movement site for binding and scope requirements.

¹⁰ See Alexiadou, Law, Meinunger & Wilder (2000), Aoun, Choueiri & Hornstein (2001) and Aoun & Li (2003) for a discussion of reconstruction effects different languages exhibit. Aoun & Li (2003) point 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, the relative clauses exhibit reconstruction with respect to binding but not with respect to scope relations between two quantificational expressions. In Turkish, as I point out in the following sections, relative clauses exhibit reconstruction effects with respect to both binding requirements of pronominals and scope relations between two QPs.

3.3.1. Reconstruction due to binding

Turkish relative clauses show reconstruction effects with respect to binding requirements. A bound pronominal in the head position of a relative clause has to be bound by a QP in subject position of the relative clause. Examples (10 and 11) below include a quantified expression in the subject position of the verb in the relative clause and the relativized head contains a bound pronominal.

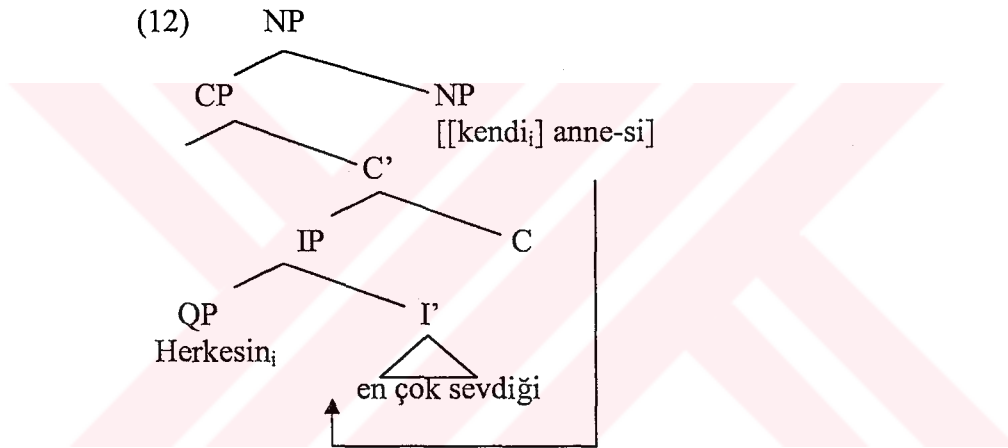
- (10) [CP [C' [IP Herkes-in_i [I' t_j en çok sev-diğ-i]]]] [[kendi]_i anne-si]_j
 everyone-GEN most love-DIK-AGR self mother-AGR
 “One’s own mother, that everyone loves the most.”

- (11) [CP [C' [IP Her öğrenci-nin_i [I' t_j çiz-diğ-i]]]] [[kendi]_i anne-si-nin
 every student-GEN draw-DIK-AGR self mother-POSS-GEN
 resm-i]_j
 picture-AGR
 “The picture of one’s own mother, that every student drew.”

Both examples (10-11) above contain quantified phrases, “herkes-in” and “her öğrenci-nin” respectively, in the subject position of the relative clauses. These quantifier phrases have to bind the pronominal “kendi” (self) in the relativized head for proper interpretation; otherwise Full Interpretation cannot be satisfied (Chomsky, 1995). Since binding occurs at the level of S-Structure, a QP has to be higher than

¹¹ Here reconstruction effects are discussed in terms of the relativized head reconstruction. However, one can discuss the same phenomenon in a different way reconciled with the operator movement. The study leaves the issue for further investigation.

the pronominal to bind it at the level of S-Structure according to the c-command definition of government. But, as it can be seen in the examples above, QP is not higher than what it has to bind (QP is within the relative clause and the bound pronominal is part of the relativized head). In order for the QP to bind the bound pronominal, the relativized head must be reconstructed back to the relative clause at LF. This reconstruction of the relativized head provides evidence for the claim that the relativized head in fact, raises from the relative clause. (12) below is the tree representation of the reconstruction of example (10).



In (12) above, the QP subject 'herkesin' of the relative clause has to bind (c-command) the bound pronominal 'kendi' in the head noun for proper interpretation. In order for this binding to take place, the head noun has to be placed back to the relative clause (inside the IP). This operation, referred to as reconstruction which enables the QP to bind the pronominal presupposes a head raising analysis for the relative clauses above since head raising approach implies that the head noun is base generated inside the relative clause and moves to some position. The same analysis is provided for Chinese relative clauses by Aoun & Li (2003:132).

3.3.2. Some scope relations in relative clauses

Relative clauses in Turkish also exhibit reconstruction effects with respect to the scope relationship between two QPs in a structure, the first one in subject position and the second in head position. These relative clauses are ambiguous regarding the wide scope of either QP. If the QP in subject position has wider scope over the QP2 which is in head position, the second QP has to be reconstructed to a position in the relative clause from which it raised. Example (13) shows this scope ambiguity and the obligatory reconstruction of the second QP:

- (13) [CP[C'[IP[QP1 Her doktor-un_i] [_i t_j muayene et-tiğ-i_i]]]] [QP2 üç hasta_j]
 every doctor-GEN examine-DIK-AGR three patient

Reading 1: “The three patients who every doctor examined”

Reading 2: “Different three patients every doctor examined”

Note that example (13) above is ambiguous according to the scope properties of the two QPs. Reading 1 implies that QP2 in head position has wider scope over the first QP in subject position of the relative clause. With this reading there is no reconstruction since the QP which has wider scope is in a higher position than the one which has narrow scope in the structure. The second reading implies, on the other hand, that QP1 has scope over QP2 that is, QP1 has to bind (c-command) the QP2 at the level of S-Structure since binding occurs at SS. However, QP1 is not in a higher position than QP2 in the structure. Therefore, in order for QP1 to have scope over (bind=c-command) QP2, the head noun (QP2) has to reconstruct back to the relative clause for proper interpretation. With this operation, the QP2 is placed back to the relative clause (to the complement position of the verb within IP) so that the

QP1 binds it. (14) below illustrates the scope relation between the two QPs according to the reading 2: (cf. the structure in (12))

(14) $\forall > 3$

It can be concluded from the discussion above that Turkish relative clauses exhibit reconstruction effects (reconstruction of the head noun) with respect to the binding and scope relations. If reconstruction is a diagnostic for movement, we have to conclude that Turkish relative clauses are derived by head raising approach in some cases.

3.4. Idiom relativization

This section considers idiom relativization. By looking at the (im)possibility of idiom separation in Turkish relative clause constructions, it will be argued that idiom relativization presents evidence in favor of both relative clause formation strategies, head raising (Kayne 1994) and operator movement (Chomsky 1977).

Although some idioms allow their parts to be relativized separately, others do not in Turkish as the examples in (15a-d)¹² indicate:

¹² The examples in (15a-b) are analyzed as idioms in this study. However, it can also be argued that these are compound verb structures rather than real idiomatic expressions. Some other idioms which exhibit the same feature, i.e. they allow idiom separation, are 'kin güt-', 'ceviz kır-' and 'sözünü kes-'.

- (15) a. [CP [C' [IP Çalışma-nın [r t_i al-dığ-ı]]]] [yol]_i memnun edici.
 work-GEN take-DIK-AGR road satisfactory-COP

“The progress which the work has is satisfactory.”

- b. [CP [C' [IP Ali-nin [r t_i çek-tiğ-i]]]] [çile]_i -yi bil-ir-im.
 Ali-GEN bear-DIK-AGR trouble -ACC know-AOR-AGR

“I know the troubles Ali had.”

- c. *Ali-nin [CP [C' [IP pro_j [r t_i çek-tiğ-im_j]]]] [kulağ-ı]_i
 Ali-GEN pull-DIK-AGR ear-POSS

“Ali’s ear that I pulled” (I warned Ali)

- d. *[CP [C' [IP pro_j [r [PP Ali ile] t_i değış-tiğ-imiz]]]] [kùlah-lar]_i
 Ali with change-DIK-AGR conical hat-PL

“I fell out with Ali”

In (15a), one part ‘yol’ (road) of the idiom ‘yol almak’ occurs as the relativized head and the other part of the idiom ‘al-dığ-ı’ is included within the relative clause. In (15b) the same situation occurs, the head of the relative clause is ‘çile’ which is the first part of the idiom and “çek-tiğ-i”, the second part, is contained in the relative clause. In (15c-d), on the other hand, as the ungrammaticality of the examples indicates the idiom separation is not available.

Given that the parts of an idiom need to be generated as a unit, examples (15a-b) argue for the occurrence of head raising that is, the head of the relative clause is generated within the relative clause and moves to the head position, cf. Schachter

(1973:31-32) (cited in Aoun & Li (2003:97-98)).¹³ However, the ungrammaticality of idiom separation in (15c-d) argues for the unavailability of the head raising. If the head raising were to take place in the derivation of these relative clauses, these examples should have been treated as grammatical. However, the ungrammaticality of the examples suggests that the relative clauses cannot always be generated by head raising analysis.¹⁴

3.5. Argument vs. adjunct relativization

One piece of evidence which argues for base generation of the relativized head is related to the different behavior of the argument vs. adjunct relativization. Although some argument relativization structures are derived by head-raising, adjunct relativization structures are not. Let us consider the following examples: Example (10) in section 3.3.1 which is an instance of argument relativization repeated here as (16) and (18) represents the relativization of the adjunct in (17).

- (16) [CP [C' [IP Herkes-in_i [I_{tj} en çok sev-diğ-i]]]] [[kendi_i] anne-si]_j
 everyone-GEN most love-DIK-AGR self mother-AGR
 “One’s own mother, that everyone loves the most.”

¹³ See also Alexiadou, Law, Meinunger & Wilder (2000) for a discussion of idiom separation in relative clauses.

¹⁴ The idiom separation is discussed here in terms of their syntactic behaviors in relative clauses. However, we should note that there maybe semantic explanations for the dual nature of idioms in terms of relativization. The idioms which allow separation can be treated as truly idiomatized expressions while some others which resist separation are lexicalized expressions.

(17) [IP Ali [I' [PP [P' [NP bıçak] ile]] [VP [V' [NP ekmeğ-i] kes-ti]]]].

Ali knife with bread-ACC cut-PAST-AGR

“Ali cut the bread with the knife.”

(18) [CP [C' [IP Ali-nin [I' [PP t_i] [VP [V' [NP ekmeğ-i] kes-tiğ-i]]]]] bıçak_i

Ali-GEN bread-ACC cut-DIK-AGR knife

“The knife with which Ali cut the bread”

The relative clause which is an instance of argument relativization in (16) is derived by head raising analysis since it involves reconstruction of the relativized head due to the binding requirements of the QP ‘herkesin’ in subject position of the relative clause. Example (17) includes a PP which functions as a VP adjunct. The head P takes NP as its complement. (18) is the relativization of this adjunct PP. If the head raising analysis were to take place above, we would have to assume that the complement of head postposition in PP is raised and the head P is deleted. This possibility is rejected by Aoun & Li (2003:173-174)¹⁵ by considering the differences between relativization and topicalization in Chinese with respect to the distribution of prepositions. Since the head is a nominal expression rather than an adverb or PP, we can assume that the head is not raised from the relative clause, thus is base generated in its surface position. If the head is moved from the relative clause, the head and the gap in the relative clause have to be the same category. What is moved

¹⁵ Aoun & Li base their analysis on the asymmetry of argument vs. adjunct relativizations in Chinese. In Chinese, argument relativization can be derived by the movement of the NP to the head position. For adjunct relativization, on the other hand, what is relativized is not an NP but a PP. Since the head position is a nominal expression in adjunct relativization, this PP cannot move to the head position which is a nominal category. Therefore, head movement does not apply in the case of Chinese adjunct relativization. What is moved is a null operator since the operator can be equivalent of a PP.

is an NP and the gap should be an NP. Clearly, an NP is not a PP or Adv. Moreover, a PP cannot move directly to the head NP position. By contrast, the operator moved to Spec-CP can be equivalent to a PP or Adv. The relative clause then is derived by (null) operator movement to the Spec-CP as proposed by Chomsky (1977). The operator is interpreted with the head via some interpretive mechanism such as predication, that is the relative clause being regarded as an open sentence predicated of the head.¹⁶ Example (19) below is the derivation of the same relative clause by operator movement:

- (19) [CP OP_i [C' [IP Ali-nin [_P [PP t_i] [_{VP} [_{V'} [_{NP} ekmeğ-i] kes-tiğ-i]]]]] bıçak_i
Ali-GEN bread-ACC cut-DIK-AGR knife
“The knife with which Ali cut the bread”

The operator which is base generated within the relative clause moves to the Spec-CP position and binds its trace. In conclusion, the fact that argument vs. adjunct relativization behaves differently in Turkish can be assumed as evidence for the claim that certain relative clauses (relative clauses including the relativization of the adjuncts) must be generated via null operator movement to the Spec-CP. The head then must be base generated in its surface position.

¹⁶ See Chomsky (1982:92-94 footnote 11) and Safir (1986) for a discussion of this issue. It is assumed that the interpretation of an operator is provided with a rule of coindexation by which the head and the operator end up having the same index. This coindexation is used to represent the fact that the relative clause modifies or is predicated of the head.

3.6. Headless relative clauses

This section extends the distinction between argument relativization and adjunct relativization in the previous section to the headless relative clauses which will be argued to provide evidence in favor of the operator movement approach. In Turkish relative clauses, although the argument relative clauses allow their heads to be deleted, adjunct relative clauses do not as the examples (20-21) indicate: Example (13) is modified as (20).

(20) a. [CP [C' [IP [QP₁ Her doktor-un_i] [_{I'} t_j muayene et-tiğ-i_i]]]]

every doctor-GEN examine-DIK-AGR

[QP₂ üç hasta_j] şimdi dinlen-iyor.

three patient now rest-PROG-AGR

Reading 1: “The three patients who every doctor examined are resting now.”

Reading 2: “Different three patients every doctor examined are resting now.”

b. [CP [C' [IP [QP₁ Her doktor-un_i] [_{I'} t_j muayene et-tiğ-i_i]]]]

every doctor-GEN examine-DIK-AGR

şimdi dinlen-iyor.

now rest-PROG-AGR

Reading 1: “Those who every doctor examined are resting now.”

Reading 2: “Those who every doctor examined are resting now.”

- (21) a. [CP OP_i [C' [IP Ali-nin [_{I'} [PP t_i] [VP [V' [NP ekmeğ-i] kes-tiğ-i]]]
 Ali-GEN bread-ACC cut-DIK-AGR
 bıçağ_i -1 bul-du-m.
 knife-ACC find-PAST-AGR
 “I found the knife with which Ali cut the bread.”
- b. *[CP OP_i [C' [IP Ali-nin [_{I'} [PP t_i] [VP [V' [NP ekmeğ-i] kes-tiğ-i]]]-ni
 Ali-GEN bread-ACC cut-DIK-AGR-ACC
 bul-du-m.
 find-PAST-AGR
 “I found (the knife) with which Ali cut the bread.”

In argument relativization cases above (20a-b), the relativized NP can be deleted and the structure is acceptable. However, in adjunct relativization cases (21a-b), the deletion of the relativized head is not acceptable as the ungrammaticality of (21b) indicates. We can explain the ungrammaticality of (21b) above if we assume that adjunct relativization is derived by operator movement. Since adjunct relativization is derived by operator movement, in (21b) there is a null operator that moves to Spec-CP position. This null operator needs to be identified that is, it needs to be interpreted (Aoun & Li, 2003:182). The one possible element to identify the null operator is the relativized head. When the head is not present (lacking its lexical content) in the structure, i.e. it is deleted, there is no element to identify the null operator, thus the derivation crashes. Therefore, the source of the ungrammaticality of (21b) above provides further evidence in favor of the operator movement. The

head in these relative clauses has to be base generated and the null operator moves to the Spec-CP position for proper interpretation of the relative clause.¹⁷

3.7. Complementation vs. adjunction structures

In this section, it will be discussed whether head-raising and operator movement analyses result in a complementation or an adjunction structure with respect to their relations to the head. It will be argued that Turkish relative clauses are not complementation structures, but they are adjunction structures with respect to the head they modify.

3.7.1. Turkish RCs are not complementation structures

The complementation analysis which claims that relative clauses are complements predicts that the head D takes the whole relative clause CP as its complement. Therefore, in some languages like English D selects CP as discussed earlier.

$$(6) \quad [\text{DP D} [\text{CP NP}_i [\text{C}' [\text{IP} \dots \dots t_i \dots \dots]]]]$$

In the following section I will show that this analysis does not work for Turkish relative clauses. The argumentation against the complementation analysis is two-fold: the first evidence comes from the observation that there is no definite determiner in Turkish which selects the relative clause CP as its complement. The

¹⁷ See Alexiadou, Law, Meinunger & Wilder (2000) and Aoun & Li (2003) for a similar discussion of headless-relative clauses.

second evidence is the fact that almost all Turkish relative clauses have restrictive reading.

3.7.1.1. The absence of the lexical D

As it is pointed out in descriptive grammars of Turkish, there is no definite determiner in Turkish (Underhill, 1976, Kornfilt, 1997). The so called indefinite article ‘bir’ (one) is considered a quantificational expression rather than a determiner as pointed out by Öztürk (2003:1).

Arguments in favor of the complementation structure of the relative clauses are based on the assumption that the head D selects a CP as its complement. German is another language that shows such a pattern (Alexiadou, Law, Meinunger & Wilder 2000:8). German ‘derjenige’ (the (very)) requires the presence of CP rather than a N/NP as the following example from Alexiadou, Law, Meinunger & Wilder (2000:8 example 20) indicates:

- (22) derjenige (Mann) *(der dort sitzt)
 the+that man who there sits
 “the very man (/person/one) who is sitting there”

As can be observed in the example above, German has a lexical determiner which requires the presence of a CP rather than an N or NP. Hence, the optional occurrence of the relative clause above is ungrammatical. Such a pattern has not been observed so far in Turkish. If the so called indefinite determiner ‘bir’ shows a similar pattern, we would expect it to show its own selectional requirements. The indefinite

determiner ‘bir’ can be used with other pronominal modifiers such as relative clauses and adjectives as the example (23) indicates:

- (23) (gör-düğ-üm) (güzel) bir film
 [REL.CLA see-DIK-AGR] [ADJ nice] a movie

Therefore, there is no evidence that D requires/selects a CP as its complement in Turkish as in the case of English.

3.7.1.2. Restrictive reading of Turkish relative clauses

The relative clauses in Turkish with a few exceptions are restrictive type of relative clauses. This section deals with the restrictive reading of relative clauses in that it demonstrates that they cannot be a complement of the head D.

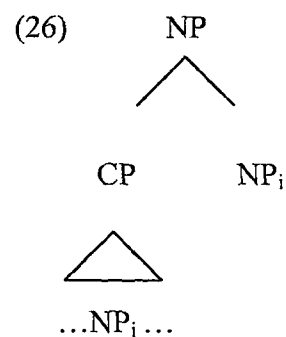
In the head raising analysis of relative constructions (Kayne 1994), it is assumed that relative clauses are formed by a complementation structure and the D takes CP (DP D CP) as its complement. The reverse word order of a head-final language is derived by the movement of the entire IP to the Spec of DP (Aoun & Li, 2003:151). In Turkish, the situation is exactly the same, the IP complement of C moves to the Spec of higher DP as also pointed out by Kornfilt (2000b:191). This additional movement of IP makes it higher than D. In other words, it is outside the c-command domain of D. According to Kayne (1994:110-115), a relative clause is non-restrictive if it is outside the c-command domain of D. Therefore, if Turkish relative clauses are examples of complementation structure, we expect them to be non-restrictive. However, both relative clauses (24-25) below have restrictive readings:

- (24) $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} t_i oku-duğ-um_j]]]]$ kitap_i
 read-DIK-AGR book
 “The book that I read”

- (25) $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} t_i gör-düğ-üm_j]]]]$ kadın_i
 see-DIK-AGR woman
 “The woman whom I saw”

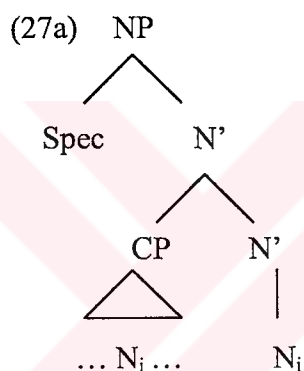
3.7.2. Adjunction structures

After showing that Turkish relative clauses are not complementation structures, I argue in this section that they are adjunction structures, namely a CP adjoined to NP. CP is merged with an NP. NP can leave a copy inside CP if we assume head movement analysis. But, since NP does not c-command its trace the movement is illicit. The proposed structure for this adjunction analysis is in (26) below from Aoun & Li (2003:159 example 3):

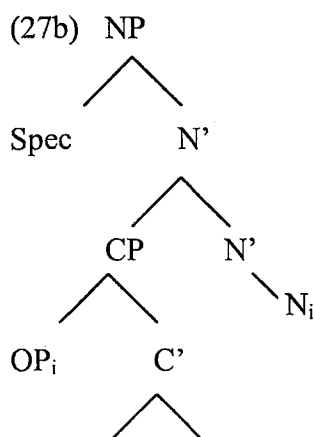


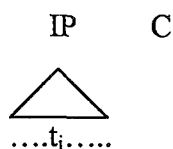
In (26), first CP is generated. Then it is merged with an NP and NP can leave a copy inside the CP. Then NP projects and forms the structure in (26). The structure proposed for the adjunction analysis poses problems regarding the definition of c-

command condition on movement. CP actually, is not c-commanded by the two-segment NP since it is not dominated by the NP category and NP is not excluded by the NP (one segment of the NP dominates the CP). Aoun & Li, (2003:160) suggest a licit movement by recasting the c-command requirement on movement in terms of a derivational notion of extension. I will not go into detail about the licit adjunction structure proposed in Aoun & Li (2003) rather, I will assume the following representations in (27-a-b): (27a) for the adjunction analysis of relative clauses derived by head raising and (27b) for the operator movement analyses:



According to the structure (27a) above, CP is a relative clause which functions as the adjunct of the head N which it modifies. The CP is inside the m-command domain of the head noun.





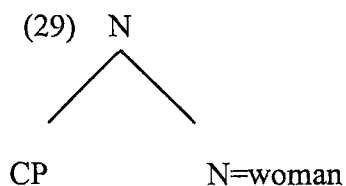
(27b) above shows the derivation of the adjunction structure of the relative clause which is derived by the empty operator movement. According to (27b) above, Spec-CP position is filled by the empty operator which moves to that position from its base position (complement position of the verb). The operator in spec-CP is coindexed with its trace and interpreted via a predication rule.

The fact that there is no determiner in Turkish relative clauses which selects a CP implies that the relative clauses are always left adjoined to the head they modify (cf. Fukui & Takano (2000) (cited in Aoun & Li, 2003:192). The structure of the relative clause in (1a) in Chapter 1, repeated here as (28) is given below:

(28) $[\text{CP OP}_i [\text{C} [\text{IP } \text{pro}_j [\text{I}' t_i \text{ sev-diğ-im}_j]]]] \text{ kadın}_i$

love-DIK-AGR woman

“the woman whom I love (her)”



The CP is left adjoined to the head noun in accordance with Kayne’s proposal which bans right adjunction. (29) is the full representation of the relative clause in (28) since there is no D which NP projects further. With this proviso, adjunction analysis

of an English relative clause can be explained with a N-to-D movement. Since English has D the phrase marker N has to merge further with this D in order to generate a well formed nominal clause. After this further merge, N-to-D movement has to occur in order for the N to check its features within D. Therefore, we can conclude that the N-to-D movement in English is not relevant in Turkish since Turkish does not have a D node as in Japanese and Korean.¹⁸

Further evidence for the adjunction analysis of the relative clauses can be provided by considering the order of prenominal modifiers in Turkish. Since Turkish is a head final language, the dependents precede their heads. The order of the pronominal modifiers including demonstratives and numerals is given in (30) and exemplified in (31):

(30) Demonstrative + Numeral + Noun

(31) bu iki öğrenci

this two student

“these two students”

¹⁸ See Fukui & Takano (2000) (cited in Aoun & Li) for a discussion of Japanese relativization. They further investigate the parametric differences between English and Japanese regarding relative pronouns, complementizers, operator movement and internally headed relative clauses. They argue that Japanese relative clauses are not CP but are IP (TP). Since there is no operator, Japanese relative clauses are not ‘operator-oriented’. Instead, Japanese relative clauses are licensed by an ‘aboutness’ relation between the relative head and the relative clause itself.

A similar proposal is made in Jo (2002) for Korean. See also Kayne (1994:93-94) for the derivation of relative clauses in Amharic.

As argued in Özsoy & Taylan (1992)¹⁹ there are two different functional projections within an NP: (i) a complement projection and (ii) adjunct projection. Extending Özsoy & Taylan (1992) to the demonstratives and numerals within an NP, we can point out that the order for demonstratives and numerals is a fixed one, i.e. the numerals cannot precede the demonstratives. For this fixed ordering, it has been proposed by Li (1998 (cited in Aoun & Li, 2003)) that each of these pronominal modifiers has their own functional projection. However, unlike the demonstratives and the numerals, adjectives as in (32a-c) and the relative clauses as in (33a-c) can occur in any position, i.e. they can intervene between demonstratives and numerals.

- (32) a. bu iki çalışkan öğrenci
 this two hardworking student
 “these two hardworking students”
- b. bu çalışkan iki öğrenci
 this hardworking two student
 “these two hardworking students”
- c. ?çalışkan bu iki öğrenci
 hardworking this two student
 “these two hardworking students”

¹⁹ The internal structure of the NPs in Turkish is discussed by Özsoy & Taylan (1992). They investigate the constituents of the NP and their relations to the nominal head within the generative grammar. By looking at scrambling, coordination and deletion facts, they point out that there are two different functional projections within a NP: (i) a complement projection and (ii) adjunct projection.

- (33) a. [REL.CL kimse-nin sev-me-diğ-i] bu iki kitap
 no one-GEN love-NEG-DIK-AGR this two book
 “these two books that no one likes.”
- b. bu [REL.CL kimse-nin sev-me-diğ-i] iki kitap
 this no one-GEN love-NEG-DIK-AGR two book
 “these two books that no one likes”
- c. bu iki [REL.CL kimse-nin sev-me-diğ-i] kitap²⁰
 this two no one-GEN love-NEG-DIK-AGR book
 “these two books that no one likes”

As can be observed in the examples above, adjectives and relative clauses, to a certain extent, can occur freely in a prenominal domain which modifies the head noun. If the demonstratives and numerals have their own functional projections, it is possible to analyze relative clauses as adjunction structures rather than complementation structures. Since none of these functional projections selects a relative clause or an adjective as their complement, relative clauses and adjectives adjoin themselves to one of these functional heads (cf. Aoun & Li, 2003:146-151). It is also possible to argue from this discussion and the distributional properties of adjectives that adjectives are simply a subcase of relative clauses.²¹

²⁰ According to some native speakers, this complex NP sounds odd although not ungrammatical.

²¹ Although this issue needs more discussion and analysis of the full paradigm of adjectives and relative clauses in a prenominal domain, adjectives can even behave as reduced relatives, I will not go into further detail since it is beyond the scope of this thesis. See Aoun & Li (2003) for a discussion of this proposal.

Previous discussion indicates that relative clauses and adjectives can occur freely in various positions. Similarly, the order of relative clauses among themselves and with adjectives can be free, which is a property of adjunction structures according to Aoun & Li (2003:150). Consider the following examples in (34a-b) and (35a-b) indicating that relative clauses can occur freely and that the order of adjectives and relative clauses can be free respectively:

(34) a. [REL.CL1 geçen hafta gel-en] [REL.CL2 sen-in beğen-diğ-in] film
 last week come-AN you-GEN like-DIK-AGR film
 “the film which appeared last week and you liked”

b. [REL.CL2 sen-in beğen-diğ-in] [REL.CL1 geçen hafta gel-en] film
 you-GEN like-DIK-AGR last week come-AN film
 “the film which appeared last week and you liked”

(35) a. [REL.CL sen-in beğen-diğ-in] kırmızı merinos yün-ü-nden
 you-GEN like-DIK-AGR red merino wool-AGR-ABL
 kazak

jumper

“the red made up of merino wool jumper which you also like”

b. ?kırmızı [REL.CL sen-in beğen-diğ-in] merinos yün-ü-nden
 red you-GEN like-DIK-AGR merino wool-AGR-ABL
 kazak²²

jumper

²² This example sounds odd for some native speakers. However, this oddity is eliminated with a little pause after the first adjective.

“the red made up of merino wool jumper which you also like”

As the examples in (34a-b) above indicate, relative clauses can occur freely among themselves.²³ Similarly, (35a-b) show that the ordering between adjectives and relative clauses, although not totally free, is flexible. Given these facts, we can argue that relative clauses are adjunction structures just like prenominal adjectives. As the examples here and the ones in the previous discussion indicate relative clauses can adjoin to all projections.²⁴

3.8. Conclusion

In this chapter, the relative clause formation strategies in Turkish and their implications on the relationship between the RPs and their antecedents have been discussed. I attempted to answer two main questions:

- (i) Which of the two analyses, empty operator movement of Chomsky (1977) or head raising of Kayne (1994), can predict the relative clause formation in Turkish and which of these two approaches can correctly explain the A'-dependency between a resumptive pronoun and its antecedent.

²³ The scope relationships between two relative clauses need further consideration. One may look at the coordination of different types of relative clauses and their scope relationships.

²⁴ See Aoun & Li (2003) for a discussion of this issue. By looking at similar constructions, they argue that the relative clauses in Chinese are adjunction structures, CP adjoined to NP.

(ii) Do these head-raising and operator movement analyses result in a complementation or an adjunction structure with respect to their relations to the head noun.

For the first question, I have discussed the derivation of different types of relative clauses including idiom relativization, argument vs. adjunct relativization, headless relative clauses and relative clauses which include reconstruction of the relativized head. The analysis of these structures demonstrated that both approaches to the relativization are necessary to account for the different relative clauses. It was also pointed out in this chapter that two analyses do not differ in terms of their implications on the nature of RPs and resumption phenomena.

For the second question, I assumed that Turkish relative clauses are not complementation structures. The restrictive reading of the relative clauses which prohibits the correct derivation of complementation structure argued by Kayne (1994) and the absence of D are presented as evidence for this assumption. The fact that relative clauses can occur freely among themselves and the overt similarities between adjectives and relative clauses pointed out that relative clauses are adjunction structures in Turkish.

The facts observed in the discussion on both approaches to the relative clauses will be used in the next chapter on the nature of A'-dependency between the resumptive pronoun and its antecedent. Therefore, the evidence coming from these different strategies will be proposed to explain the claim in the next chapter that the RPs are

syntactic variables resulting from the movement of the empty operator or the head noun.



CHAPTER IV

A'-DEPENDENCY BETWEEN THE RESUMPTIVE PRONOUN AND ITS ANTECEDENT

In this chapter, I will discuss the nature of the A'-dependency between the resumptive pronoun and its antecedent. It will be argued that RPs in Turkish relative clauses are not last resort expressions or spell outs of traces but are syntactic variables which are bound by a null operator in Spec-CP position which moves to that position from where it is generated in the relative clause. The semantic content of the RPs compared to the corresponding traces within certain types of constructions, the behavior of RPs with respect to the Condition C of Binding Theory (strong and weak crossover phenomena), coordination structures and parasitic gap constructions will be investigated and argued to be evidence for the claim that RPs are syntactic variables bound by a null operator at the level of S-Structure.

Following Chomsky (1977) and Cinque (1990), I assume that relative clauses are among A'-constructions and the dependency between the resumptive pronoun and the antecedent that binds it is a type of A'- dependency.¹ Moreover, relative clauses

¹ The following structures are A'-dependencies according to Chomsky (1977): restrictive and nonrestrictive relative clauses, constituent questions, clefts, topicalization structures, comparative and equative clauses, infinitival relatives, purpose clauses, complex adjectival (tough movement) constructions (cited in Mc Closkey, 1990:208).

Cinque (1990) posits four types of A'-dependencies in languages. The fourth type includes an A'-dependency between a resumptive pronoun and a sentence initial phrase in the left-dislocation and

in Turkish are investigated as A'-constructions by Kornfilt (1984, 1991 and 2000a) and Özsoy (1996 and 1998).

4.1. RPs are not last resort expressions or spell-outs of traces

In this section, it will be argued that RPs in Turkish are not last resort expressions as claimed in Shlonsky (1992) for Hebrew, Mc Daniel & Cowart (1999) and Mc Kee & McDaniel (2001) for English RPs. The last resort phenomenon is considered together with the analysis of RPs as phonetic spell-outs of traces since the syntactic implications of the two approaches are considerably the same (cf. Mc Kee & Mc Daniel (2001) and Mc Daniel & Cowart (1999)).² The operation of spelling out the trace of the movement is considered to be an operation that applies as a last resort (Boeckx, 2001: 33-34). However, RPs in Turkish are not spell-outs of traces. The core point here is that since there is an overlap in the distribution of RPs and traces as illustrated in the introductory chapter, the constraints on their occurrence must be

relative constructions of various languages, which is totally insensitive to strong (or weak) islands constraints. According to Cinque, there is free indexing between the resumptive pronoun and its antecedent. According to this view, resumption arises if a pronoun is assigned the same index as a c-commanding wh-operator resulting in the A'-binding of the pronoun by the wh-operator.

² Shlonsky (1992) notes Hebrew is actually an English type of language with respect to RPs. Like Mc Daniel & Cowart (1999), he considers RPs as last resort expressions. However, he does not analyze the issue of competing derivations. Thus, he does not conclude that RPs are spell-outs of traces. According to Shlonsky, a resumptive pronoun is a pronominal element which comes to be variable only at the level LF.

stated independently of one another rather than using the last resort principle for RPs (Willis, 2000:550).

The analysis which considers RPs as spell-outs of traces implies that RPs and traces have the same numeration. Then, RPs have an extra step of traces spelling out as a resumptive pronoun. But if the traces and RPs alternate freely, we can argue that RPs and traces have different numeration. RPs are distinct lexical items, not the spell-outs of traces. Since their numeration is not same, they do not compete with each other (Mc Daniel & Cowart, 1999: B17 footnote 2³). Languages which behave in the same way as Turkish in allowing RPs and traces to alternate freely are Irish and Hebrew, as discussed by Mc Closkey (1990 and 2002) and Shlonsky (1992). One alternative approach to languages in which traces and RPs alternate freely is given by Suner (1998). She proposes a Phonetic Form Spell-Out analysis in which she assumes languages not to differ with respect to RPs. Suner (1998) differs from Mc Daniel & Cowart (1999) in that her spell-out occurs not after movement but when the relative pronoun (operator) stays-in-situ. According to her, the complementizer has a [pronominal] feature which determines whether the relative pronoun moves or stays in situ. If the complementizer has [+pronominal] feature, it moves to check its feature and results in a trace. If it has [-pronominal] feature, on the other hand, it stays in-situ

³ Mc Daniel & Cowart (1999) claim that RPs and traces in English have the same numeration in order to account for the saving function of a resumptive pronoun. Thus, RPs are spell-outs of traces resulting from syntactic movement. They argue that, for reasons of economy a resumptive pronoun surfaces only when the derivation with the trace is precluded by syntactic principles. See also Mc Kee & Mc Daniel (2001) for the claim that resumptive pronouns and traces have the same numeration.

and is spelled out as a resumptive pronoun. These two derivations don't compete with each other since their numeration is not the same.⁴

The rest of this section deals with some semantic differences between RPs and corresponding traces with respect to their discourse linking properties. These semantic differences are counted as evidence for the claim that RPs and traces are in fact, different lexical items, hence their numeration is not the same. Therefore, RPs are not spell-outs of traces in Turkish, rather they are distinct lexical items.⁵

4.1.1. Multiple individual vs. single individual interpretation

This section argues that since the RPs and the corresponding traces have different semantic interpretations, RPs cannot be considered as last resort expressions which by definition have no semantic content.

⁴ Suner (1998) concludes that RPs in relative clauses need only materialize at PF for reasons independent from interpretation. Therefore, they are not last resort as those resumptives whose presence is mandated because of an island violation.

⁵ A counter argument to this claim is to consider RPs as minimal copies of their antecedents. However, this argument is rejected by Boeckx (2001:46). He argues that RPs are not minimal copies of their antecedents, rather they are distinct syntactic entities. Then he provides a movement based approach to resumption which argues that RPs are stranded elements. The antecedent of a resumptive pronoun is its complement at first merge. Then the antecedent moves to some Spec position in a higher clause. Although different, his movement analysis is compatible with the analysis presented in this study. Boeckx also discusses the option inserting a resumptive pronoun at PF. He points out that this will presumably cause a crash since RPs have semantic content which PF cannot deal with.

Doron (1982) (cited in Sharvit, 1999:587-588) makes an observation on the occurrence of RPs and traces. When a trace in the relative clause with a quantified expression in subject position is c-commanded by that quantified expression, the sentence is ambiguous between a ‘single individual’ and a ‘multiple individual’ interpretation. The Hebrew examples from Sharvit (1999:588) below illustrate this point:

- (1) ha-iSa Se kol gever hizmin t 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.

(1) above contains a quantified phrase in 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. Now, consider the following example in which the ‘multiple individual’ reading is impossible:

- (2) 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”

Example (2) above contains a resumptive pronoun in the relative clause, i.e. the trace position is filled by a resumptive pronoun. Based on this contrast, Sharvit (1999)

argues that there is a fundamental difference between traces and RPs in that the latter resist a multiple individual reading.⁶

Applying the same tests to Turkish relative clauses, it will be seen that the same contrast holds in Turkish too. The relative clauses containing a trace which is c-commanded by a quantificational expression are ambiguous between multiple individual and single individual readings. Consider the following examples in (3):

- (3) a. [CP OP_i [C' [IP Her adam-ın [_I t_i çağır-dığ-ı]]]] kadın_i
 every man-GEN invite-DIK-AGR woman
 1. reading: The (same) woman who every men invited
 2. reading: The (different) woman who every man invited
- b. [CP OP_i [C' [IP Her adam-ın [_I kendisi-ni_i çağır-dığ-ı]]]] kadın_i⁷
 every man-GEN herself-ACC invite-DIK-AGR woman
 “The woman who all men invited”

The examples in (3a-b) indicate that when the complement position of the verb is filled by a gap as in (3a), the relative clause with a quantified NP is ambiguous between the multiple individual and single individual readings. However, if the gap is filled by a corresponding resumptive pronoun as in (3b), the only reading available

⁶ Actually, this is the position taken by Doron. Sharvit (1999) provides more examples in which the contrast between the traces and RPs disappears in Specificational sentences.

See also Prince (1990) for the differences between the discourse properties of relative clauses containing RPs and corresponding gaps.

⁷ Some native speakers judge this example as marginally acceptable.

is the single individual interpretation. This contrast indicates that gaps and RPs in the same position have in fact different interpretations in Turkish. Therefore, we can argue that RPs are not last resort expressions which merely repair island violations triggered by movement in relative clauses.

4.1.2. De dicto vs. de re reading

The second difference between a trace and the corresponding resumptive pronoun has to do with their different behavior with respect to ‘de dicto’ vs. ‘de re’ readings.⁸ 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 dicto’ reading is possible as the examples in (4a-b) below show:

- (4) a. [CP OP_i [C' [IP Ahmet-in [_I t_i ara-dıĝ-ı]]]] kadın_i
 Ahmet-GEN look for-DIK-AGR woman
 “The woman Ahmet is looking for”

- b. [CP OP_i [C' [IP Ahmet-in [_I kendisi-ni_i ara-dıĝ-ı]]]] kadın_i
 Ahmet-GEN herself-ACC look for-DIK-AGR woman
 “The woman Ahmet is looking for (her)”

⁸ ‘De dicto’ reading implies the real existence of something or someone. ‘De re’ reading, on the other hand, does not imply this real existence.

This semantic difference between the RPs and traces can be handled under Specific vs. non-Specific distinction. One can argue that (4a) above has a non-Specific reading while (4b) has a Specific one.

In (4a), the gap position within the relative clause is filled by the trace resulting from the empty operator movement. In this case, both 'de dicto' and 'de re' readings are available, i.e. the relativized head noun 'kadın' (woman) may or may not be an existent individual. In (4b), on the other hand, when the gap position within the relative clause is filled by a corresponding resumptive pronoun, only the 'de dicto' reading is available, i.e. the relativized head noun 'kadın' (woman) exists. As the examples indicate, there is a semantic difference between traces and RPs with respect to their discourse linking properties. Therefore, it is not plausible to treat a resumptive pronoun as the spell out of a trace.

This discussion also excludes the "Resumptive Conversion Rule" in Safir (1996:323). The Resumptive Conversion Rule states that a derivational variable v is converted to a resumptive pronoun if and only if v is not bound by a true quantifier. Safir's rule does not hold for Turkish since the RPs in Turkish can be bound by true quantifiers as the examples above illustrate. Moreover, Resumptive Conversion Rule implies that RPs do not have semantic content since they are converted from variables. However, this is not true for Turkish since the examples above also point the internal semantics of RPs.

4.1.3. Wh-questions containing a quantificational antecedent

The third evidence for the claim that RPs are not last resort expressions comes from the same contrast between gaps and RPs in that they behave differently in wh-questions which include a quantified NP as the subject of the relative clause. These wh-questions naturally have three types of answers: (i) individual answer, (ii) natural

function answer and (iii) pair list answer.⁹ If the gap position within the relative clause is filled by a trace in a question, all three types of answers are available. However, if the corresponding gap is filled by a resumptive pronoun, the ‘pair list’ answer is not available as the example (5) indicates:

(5) a. - [CP OP_i [C' [IP Her adam-in [_{I'} t_i davet et-tiğ-i]]]] kadın_i kim?

every man-GEN invite-DIK-AGR woman who

“Who is the woman every man invited?”

- Ayşe. ‘individual answer’

Ayşe

- Kendi annesi. ‘natural function answer’

self mother-POSS

- Ahmet’in Ayşe, Mehmet’in Ebru. ‘pair list answer’

Ahmet-GEN Ayşe Mehmet-GEN Ebru

b. - [CP OP_i [C' [IP Her adam-in [_{I'} kendisi-ni_i davet et-tiğ-i]]]]

every man-GEN herself-ACC invite-DIK-AGR

kadın_i kim?

woman who

“Who is woman every man invited?”

- Ayşe. ‘individual answer’

Ayşe

- ?Kendi annesi. ‘natural function answer’

self mother-POSS

- *Ahmet’in Ayşe, Mehmet’in Ebru. ‘pair list answer’

⁹ See Sharvit (1999) for further discussion of the discourse linking differences between a resumptive pronoun and a trace in Hebrew.

As the grammaticality of three answers in (5a) indicates, the question which includes a relative clause consisting of the trace can be answered in three different ways: ‘individual answer’ implies that the answer is a certain woman, ‘natural function answer’ implies a woman’s natural function (mother) and ‘pair list answer’ implies that different women are associated with different men who invite them. However, as the ungrammaticality of the ‘pair list answer’ in (5b) indicates, the same question with a resumptive pronoun can never have ‘pair list answer’. The discourse linking properties of RPs block one type of answer to such questions. The conclusion drawn from this discussion is the same: Traces and RPs are different lexical items, so RPs cannot be treated as merely spell outs of traces. If the RPs were the spell outs of traces, we would not expect such semantic differences between them.

4.2. RPs as variables at S-Structure

The operator movement analysis of relative clauses in Turkish implies that the empty operator moves to the Spec-CP position which needs to bind a variable for proper interpretation.¹⁰ Therefore, the resumptive pronoun should be interpreted as a variable like the gap in that position, otherwise the operator in Spec-CP would not bind a variable and vacuous quantification would occur (Aoun & Li, 2001:31). In the following sections, the behavior of RPs with the Condition C effects (strong and

¹⁰ RPs are defined as pronominal variables that appear in the position out of which movement is argued to occur in Mc Kee & Mc Daniel (2001).

weak cross-over phenomena), coordination structures and parasitic gap constructions are discussed as evidence for the claim that RPs are variables at S-Structure.

4.2.1. RPs and Condition C effects:

Condition C of Binding Theory implies that R-expressions must be free (cannot be bound by an element in A-position). An R expression can either be a lexical NP like 'John' or a variable (an A'-bound element). Therefore, variables are among other elements that are subject to Condition C effects. Then, if a lexical item 'x' exhibits Condition C violation, 'x' should be treated as a variable. Condition C effects are discussed as crossover phenomena and have received much attention in the past literature, (cf. Chomsky 1981, 1982, Mc Closkey, 1990, Shlonsky 1992 and Safir 1996). Crossover phenomena are treated as two distinct phenomena: (i) strong crossover and (ii) weak crossover. Strong crossover is a universal principle; weak crossover, on the other hand, is subject to a wide range of crosslinguistic variation.

4.2.1.1. Strong crossover effects and RPs

In this section, it will be argued that RPs in Turkish exhibit strong crossover violations. If RPs in Turkish are variables, we should expect them to show strong crossover effects (Chomsky 1982, Mc Closkey 1990, Shlonsky 1992). In fact they do. Condition C of Binding Theory requires that names and variables must be A-free (lack of a c-commanding antecedent in an argument position). The following example from Mc Closkey (1990:211) is a violation of Condition C in English.

- b. $?[_{CP1} OP_i [_{C'} [_{IP} kendisi_i [_{I'} [_{CP2} [_{C'} [_{IP} pro_j [_{I'} kendisi-ni_i sev-diğ-im_j-$
 herself herself-ACC love-DIK-AGR-
 $i]]]] bil-en]]]] kadın_i$
 ACC know-AN woman
 “The woman who knows that I love her”

In example (7), the resumptive pronoun ‘kendisi’ is in Spec-IP position of the higher verb. It c-commands the trace of the empty operator which is the antecedent of the resumptive pronoun. Therefore, (7a) seems to provide evidence for strong cross-over effects in a Turkish relative clause.¹² Since variables are among the elements that are subject to Condition C effects, we should say that RPs in Turkish are variables at S-Structure. But note that ungrammaticality of this example can also be due to the licensing condition of ‘kendisi’ in the subject position of the –(y)An clause. However, the ungrammaticality of (7a) contrasts with the grammaticality of (7b) in which the resumptive pronoun ‘kendisi’ is in the same position indicating that the source of the ungrammaticality of (7a) cannot be the licensing of the element in the subject position of the relative clause.

According to the discussion of the source of the (un)grammaticality of the previous example (7a-b), we would expect the following example (8c-d) to be ungrammatical

¹² RPs and strong crossover effects received vast attention in the literature. Mc Closkey (1990) points out that the examples consist of an epithet c-commanding the resumptive pronoun give rise to the strong crossover violations. Shlonsky (1992:460) applies the crossover test which is used by Mc Closkey to show whether RPs are variables at S-Structure. He points out that RPs in Hebrew show strong crossover. Taghvaipour (2004) applies the same test used by Mc Closkey (1990) and Shlonsky (1992) and points out that RPs in Persian show strong crossover violations.

since the variable (either a trace or a resumptive pronoun) is c-commanded by the resumptive pronoun in A-position. However, the examples in (8) are all grammatical.

- (8) a. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} t_i [_{CP2} [_{C'} [_{IP} pro_j [_{I'} t_i sev-diğ-im_j-i]]]]]]]$
 love-DIK-AGR-ACC
 söyle-diğ-im_j]]]]] kadın_i
 tell- DIK-AGR woman
 “The woman I told (her) that I love her”
- b. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} t_i [_{CP2} [_{C'} [_{IP} pro_j [_{I'} kendisi-ni_i sev-diğ-im_j-i]]]]]]]$
 herself-ACC love-DIK-AGR-
 i]]]]] söyle-diğ-im_j]]]]] kadın_i
 ACC tell- DIK-AGR woman
 “The woman I told (her) that I love her”
- c. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} kendisi-ne_i [_{CP2} [_{C'} [_{IP} pro_j [_{I'} t_i sev-diğ-im_j-i]]]]]]]$
 herself-DAT love-DIK-AGR-
 i]]]]] söyle-diğ-im_j]]]]] kadın_i
 ACC tell- DIK-AGR woman
 “The woman I told (her) that I love her”
- d. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} kendisi-ne_i [_{CP2} [_{C'} [_{IP} pro_j [_{I'} kendisi-ni_i sev-diğ-im_j-i]]]]]]]$
 herself-DAT herself-ACC love-
 diğ-im_j-i]]]]] söyle-diğ-im_j]]]]] kadın_i¹³
 DIK- AGR-ACC tell-DIK-AGR woman

¹³ The replacement of the regular pronoun ‘o-na / o-nu’ (him) with the resumptive pronoun in this example (also examples (21) and (22b) in this chapter) is grammatical for some speakers. Thus, the resumptive use of the regular pronouns needs further investigation. See also footnote 12 in Chapter 1.

“The woman I told her that I love her”

(8a) above includes two covert variables, since there is no element in an A- position which c-commands and is coindexed with these variables, no Condition C violation arises. (8b) is grammatical since the deeply embedded variable (a resumptive pronoun) is not c-commanded and coindexed with an element in A-position. In (8c) and (8d), on the other hand, the variable (trace in (8c) and resumptive pronoun in (8d)) are c-commanded and coindexed with an element in an A-position. Therefore, we should expect the structures to be ungrammatical due to the strong cross-over effects (violation of Condition C), since in both examples, an element in A-position c-commands and is coindexed with the variables (either the trace or a resumptive pronoun). However, as observed, the structures in (8c-d) are grammatical.

The facts based on the unexpected grammaticality of these structures can be explained with a principle requiring a chain to be unambiguous and uniform with respect to the variables it consists of. According to this principle, all variables with the same feature have to be interpreted in a unique way. Note that the interpretations of the variables in (8a-b), i.e. the trace and the resumptive pronoun respectively, can be the same entity, the relativized head. Therefore, a chain principle which claims that *any syntactic variable can be overt at any point in the chain* explains the grammaticality of the examples in (8a-d). This principle provides that the variables

have the same interpretation and occur in a unique way without causing Condition C violation.¹⁴

The discussion above does not provide conclusive evidence to the fact that a resumptive pronoun is subject to strong cross-over effects while the corresponding trace violates strong cross-over phenomenon.

I will therefore use the data from the epithet constructions as initially proposed by Mc Closkey (1990) to argue for the variable nature of the RPs in Turkish relative clauses. The proposed test is to replace the pronoun with an epithet phrase. If a resumptive pronoun in Turkish is a variable, we should expect it to exhibit strong crossover violations when it is bound by an epithet in its c-command domain if we consider epithets themselves are not resumptive pronouns.¹⁵ The following examples

¹⁴ See Boeckx (2001, 2003) for a discussion of chain principle (Principle of Unambiguous Chain), Safir (1986) for a similar proposal (Parallelism Constraint on Operator Binding) and Safir (1996) for A'-Consistency Requirement.

¹⁵ Safir (1996:320) argues that the main reason that traces of non-quantificational antecedents are supposed to be epithets is that epithets can be resumptive and can be bound by variables. Therefore they are sensitive to Condition C. However in Turkish, epithets cannot be resumptive in that they cannot be related to the relativized head as the examples below indicate:

- (i) Ali-nin t_i sev-diğ-i kadın_i
- (ii) *Ali-nin salağ-ı_i sev-diğ-i kadın_i

below indicate that epithets cause strong crossover violations when they c-command and are coindexed with R-expressions.

- (9) a. [_{IP} *salak*_i [_{I'} [_{CP} [_C [_{IP} *pro*_i [_{I'} *istifa et-tiğ-i_i-ni*]]]]] *söyle-di.*]]
 idiot resign-DIK-AGR-ACC say-PAST-AGR
 “The idiot said that he has resigned.”
- b. * [_{IP} *salak*_i [_{I'} [_{CP} [_C [_{IP} *Ahmet'in*_i [_{I'} *istifa et-tiğ-i_i-ni*]]]]] *söyle-di.*]]
 idiot Ahmet-GEN resign-DIK-AGR-ACC say-PAT-AGR
 *The idiot_i said that Ahmet_i has resigned”

In (9a) the structure is grammatical since the epithet ‘salak’ (the idiot) in the subject position of the matrix clause is not coindexed with an R-expression. In (9b), on the other hand, the structure is ungrammatical (in the intended reading). The lexical NP (an R-expression) ‘Ahmet-in’ is coindexed with and c-commanded by the epithet. The ungrammaticality of the example can be explained with the fact that an R-expression is bound by an epithet in A-position giving rise to Condition C violation. Now consider the following example in which the R-expression is replaced with a resumptive pronoun (10a) and with a trace (10b) in the relative clause.

Example (i) is a relative clause with the trace of the moved empty operator. It is grammatical. The ungrammaticality of the example (ii) is due to the fact that the gap position cannot be filled by an epithet which is related to the relativized head. Hence, the epithets cannot be used resumptively in Turkish.

- (10) a. * $[_{CP1} OP_i [_{C'} [_{IP} pro^k [_{I'} salağ-a_i [_{CP2} [_{C'} [_{IP} öğretmen-in_j [_{I'} kendisi-ni_i \text{ sınıfıta bırak-tığ-ıj-nı}]]]]] söyle-diğ-im^k]]]]] öğrenci_i$
idiot-DAT teacher-GEN himself-ACC flunk-DIK-AGR-ACC tell- DIK-AGR student
 “The student whom I informed the idiot that the teacher flunked him”
- b. * $[_{CP1} OP_i [_{C'} [_{IP} pro^k [_{I'} salağ-a_i [_{CP2} [_{C'} [_{IP} öğretmen-in_j [_{I'} t_i \text{ sınıfıta bırak-tığ-ıj-nı}]]]]] söyle-diğ-im^k]]]]] öğrenci_i$
idiot-DAT teacher-GEN flunk-DIK-AGR-ACC tell- DIK-AGR student
 “The student whom I informed the idiot that the teacher flunked (him)”

The resumptive pronoun in (10a) and the trace of the null operator in (10b) are c-commanded and co-indexed with an epithet within the same domain. Note that both structures in (10a-b) are ungrammatical. The ungrammaticality of the structures is due to the strong cross-over violations since the variable (either a resumptive pronoun or a trace) is bound by an element (epithet) in A'-position. Therefore we can conclude that RPs are syntactic variables.¹⁶

¹⁶ The variable nature of the RPs with respect to their behavior with epithets is introduced by Mc Closkey (1990:212). He argues that the fact that epithets c-commanding resumptive pronouns give rise to the strong cross-over configurations falls naturally into place if the resumptive pronoun is A'-bound and therefore syntactic variable.

4.2.1.2. Weak Crossover effects and RPs¹⁷

This section extends the discussion of Condition C violations (strong crossover) in the previous section to the weak crossover phenomenon which is another instance of the violation of Condition C. If the RPs are variables, we should expect them to show weak crossover violations too. Indeed they do. I assume the ungrammaticality of the examples in (11a-b) below is due to the weak crossover violations.¹⁸

- (11) a. *_{[CP1 OP_i [C' [IP *pro*^k [I' salağ-in_i aile-sin_i-e] [CP2 [C' [IP öğretmen-in_j idiot-GEN family-POSS-DAT teacher-GEN [I' kendisi-ni_i sınıfta bırak-tığ-ı_j-nı]]]]] söyle-diğ-im^k]]]] öğrenci_i}
- himself-ACC flunk-DIK-AGR-ACC tell- DIK-AGR student

¹⁷ The issue of weak crossover effects has been discussed a lot in Generative Literature. Safir (1986) discusses weak crossover effects in terms of Parallelism Constraint on Operator Binding (PCOB). Safir (1996) introduces A'-Consistency condition on variables and pronouns. He explains weak crossover phenomenon as a violation of this condition. A similar proposal was made by Koopman & Sportiche (1983) (cited in Safir (1996)) as Bijection Principle. Bijection Principle holds that the antecedent-variable relation must be one to one (an antecedent cannot bind more than one variable). Koopman & Sportiche (1982) (cited in Culicover (1997)) discusses the issue in terms of Leftness Condition which claims that a wh-trace cannot be coindexed with a pronoun to its left. There are also works which consider the issue in terms of reconstruction effects. See Aoun, Choueiri & Hornstein (2001) and Aoun & Li (2003) for a discussion of this.

¹⁸ See also Shlonsky (1992). He applies the same test he uses for strong crossover violations and points out that RPs are sensitive to weak crossover effects in Hebrew relative clauses. The test used here is compatible with the one in Shlonsky (1992).

“The student whom I informed the idiot’s family that the teacher flunked him”

- b. * $[_{CP1} OP_i [_{C'} [_{IP} pro^k [_{I'} salağ-in_i aile-sin_i -e] [_{CP2} [_{C'} [_{IP} öğretmen-in_j$
idiot-GEN family-POSS-DAT teacher-GEN
 $[_{I'} t_i sınıfıta bırak-tığ-ıj-nı]]]] söyle-diğ-im^k]]]] öğrenci_i$
flunk-DIK-AGR-ACC tell- DIK-AGR student

“The student whom I informed the idiot’s family that the teacher flunked him”

The resumptive pronoun in (11a) and the trace of the null operator in (11b) are co-indexed with an epithet in a possessive NP within the same domain. Note that both structures in (11a-b) are ungrammatical. The ungrammaticality of the structures is due to the weak cross-over violations since the variable (either a resumptive pronoun or a trace) is bound by an element (epithet) in A-position. Therefore, we can conclude that RPs are syntactic variables.

4.2.2. Coordination Structures

In this section, additional evidence will be given from coordination in Turkish relative clauses for considering RPs as syntactic variables at S-Structure. The coordination of two relative clauses –one consisting of a gap and the other consisting of a resumptive pronoun- is possible in Turkish. Example (12a-b) illustrate this pattern: The resumptive pronoun is included in CP1 in (12a) and in CP2 in (12b).

4.2.3. Parasitic gaps and RPs

In this section, I will discuss another piece of evidence for treating RPs as variables at S-Structure. The evidence comes from the availability of RPs to license parasitic gaps.²¹ By looking at parasitic gaps and RPs which occur in the same relative clause, I will argue that a resumptive pronoun in a Turkish relative clause can license a parasitic gap; hence it is a variable at S-Structure.²² The following examples from Ouhalla (2001:148) are argued to be parasitic gap structures in English:²³

spelled out as a resumptive pronoun in one case and a gap in the other. Since this spelling out cannot change the syntactic category of the trace, both resumptive pronoun and the trace must be of the same syntactic category.

See Taghvaipour (2004) for a discussion of the coordination of two relative clauses containing a resumptive pronoun and a gap in Persian.

²¹ See Culicover (2001) for a detailed discussion of parasitic gap constructions. He notes that it is an open question whether an A'-antecedent coindexed with a resumptive pronoun can license a parasitic gap (Culicover, 2001:47).

²² Languages differ with respect to the behavior of RPs with parasitic gaps. The possibility of RPs to license parasitic gaps is discussed by Bondaruk (1995) for Polish, Shlonsky (1992), Vailette (2001) for Hebrew, Mc Closkey (1990) for Irish, Taghvaipour (2004) for Persian. Bondaruk (1995:52) argues that RPs are variables at S-Structure since they can license the parasitic gap in a relative clause. Moreover, the ability of RPs in licensing parasitic gaps in Persian is pointed out by Taghvaipour (2004). Shlonsky (1992:462), on the other hand, shows the unavailability of RPs which license the parasitic gaps. Therefore, Hebrew RPs are not variables but are last resort expressions. As opposed to Shlonsky (1992), Vailette (2001) points out that RPs in Hebrew can license parasitic gaps. Mc Closkey (1990:226) claims that the question whether Irish RPs can license a parasitic gap cannot even be posed since there are no parasitic gap constructions in Irish at all.

- (13) a. Which article did he criticize before reading?
 b. This is the article he criticized before reading.

In these examples, the gaps in complement position of the lower verbs are licensed by another gap in the complement position of the higher verb. These gaps are called parasitic gaps and must be licensed by an A'-chain under S-Structure (Shlonsky, 1992:468). The gap which licenses the parasitic gap must be a variable at the level of S-Structure. In example (13a) above, the trace of the moved wh-word and in (13b) the trace of the moved operator licenses the parasitic gap since they are variables at S-Structure.

Now, let us examine the examples from Turkish. Example in (14) below is a parasitic gap construction in Turkish.

- (14) [_{CP1} OP1_i [_{C'} [_{IP} *pro* [_{IP} [_{CP2} OP2 [_{C'} [_{IP} [_{I'} e_i hiç gör-medem]]]]]] e_i sev-
 never see-mAdAn love-
 diğ-im]]]] kadın_i
 DIK-AGR woman

See also Falk (2002), Falk notes that RPs do not license parasitic gaps in adjuncts but do license them in subjects in Hebrew. Falk (2002) studies RPs within Lexical Functional Grammar, see also Asudeh (2003) for a discussion of RPs in Lexical Functional Grammar.

²³ Ouhalla (2001) explores the question whether parasitic gaps are or are not instances of RPs. According to Ouhalla (2001), parasitic gaps are indeed RPs. He reaches this conclusion by arguing that the null pronoun in parasitic gap constructions resembles a resumptive pronoun in that it has an obligatory bound reading.

“The woman (whom) I loved before meeting”

Example (14) above contains a gap in the complement position of the lower verb ‘gör-’ (to see). This gap is licensed by another gap in the complement position of the relativized verb ‘sev-’ (to love). According to Chomsky (1982:38-39), parasitic gap *e* is licensed by a real gap *t* which does not c-command it.²⁴ In this example, the gap which licenses the parasitic gap is the trace of the moved empty operator and it does not c-command the parasitic gap. The trace which licenses the parasitic gap can alternate with a resumptive pronoun in the same position. Example (15) below shows this possibility:

²⁴ Chomsky (1982) notes further that a parasitic gap *e* is the phonologically covert variant of the pronoun that may also appear in that position. The parasitic gap is a variable at S-Structure and at LF. It is syntactically a variable in that it falls within the scope of an operator. However, it is semantically a pronominal as indicated by its D-Structure status.

The topic ‘parasitic gap’ is initiated by (Taraldsen, 1979) (cited in Chomsky (1982)) with the formulation (i) below:

- (i) A parasitic gap is licensed by a variable that does not c-command it.

The properties of parasitic gaps are also documented by Engdahl (1981) (cited in Chomsky (1982)). Engdahl gives the following formulation for parasitic gap constructions:

- (ii) A parasitic gap *e* is licensed by a gap *t* if
- a. the relation of *t* to its filler is an unbounded dependency
 - b. *t* does not c-command *e*

- (15) $[_{CP1} OP1_i [_{C'} [_{IP} pro [_{I'} [_{CP2} OP2 [_{C'} [_{IP} [_{I'} e_i hi\check{c} g\ddot{o}r-med\ddot{e}n]]]]]]]]]]]$ kendisi-ni_i
 never see-mAdAn herself-ACC
 sev-diğ-im]]]]] kadın_i
 love-DIK-AGR woman
 “The woman whom I love before meeting”

In (15) above, the gap in the complement position of the lower verb is a parasitic gap since it is licensed by another gap in the complement position of the higher verb. In this case this gap is realized as a resumptive pronoun ‘kendisini’. Since the structure in (15) is legitimate, we have to conclude again that RPs are variables at S-Structure. Note that the corresponding regular pronoun cannot license a parasitic gap in this example:

- (16) $*[_{CP1} OP1_i [_{C'} [_{IP} pro [_{I'} [_{CP2} OP2 [_{C'} [_{IP} [_{I'} e_i hi\check{c} g\ddot{o}r-med\ddot{e}n]]]]]]]]]]]$ o-nu_i sev-
 never see-mAdAn she-ACC love-
 diğ-im]]]]] kadın_i
 DIK-AGR woman
 “The woman whom I love before meeting”

The example (16) is ungrammatical since the regular pronouns cannot license parasitic gaps in Turkish. The ungrammaticality of pronoun replacement for licensing the parasitic gap is also pointed out by İnce (2001:114).

4.3. Movement in resumptive constructions

This section deals with the questions of whether RPs are sensitive to island constraints and how movement in relative clauses takes place. It will be pointed out that there is no clear tendency among various RPs in Turkish relative clauses with respect to their (in)sensitivity to island constraints. While some RPs are sensitive to islands, others are not and the reconstruction effects are argued to be evidence for the movement within resumptive pronoun constructions. The movement takes place successive cyclically.

RPs and their (in)sensitivity to the island phenomena are well discussed in the literature. (Boeckx, 2001 and Aoun, Choueiri and Hornstein, 2001 among others).²⁵

²⁵ Boeckx (2001) notes that the fact that some RPs are sensitive to islands while others are not suggests that some RPs are related to their antecedents via movement, while others favor the base generation analysis.

Following reconstruction effects which resumption via base generation does not display, but resumption via movement does, Aoun, Choueiri and Hornstein (2001) claims that there are two types of resumptive pronouns: (i) apparent RPs which relate to their antecedents via movement, and (ii) true RPs which relate to their antecedents via a process similar to binding. If the resumptive pronoun is not separated from its antecedent by an island, it has to be generated by movement. If there is an island between the resumptive pronoun and its antecedent, the resumptive pronoun has to relate to its antecedent via binding.

The conclusion that some resumptives respect islands and others do not is also pointed by Safir (1996:323). Moreover, Borer (1994) and Demirdache (1999) (cited in Safir 1996) show some RPs in Hebrew restrictive relatives are island sensitive in that they alternate with gaps and can be topicalized or at least fronted within the relatives, whereas other RPs in Hebrew that occur in islands neither alternate with gaps nor fronted.

There is no clear tendency among the relative clauses in Turkish as to whether the resumptive pronoun within them is (in)sensitive to strong and weak islands. The islands discussed in this section are adjunct, complex NP and wh-islands.²⁶

4.3.1. Island violations and RPs²⁷

RPs exhibit no clear tendency with respect to their violation of island constraints. In some relative clauses, RPs and the corresponding traces do not exhibit island violations, in others both RPs and traces show sensitivity to islands. There are also some relative clause constructions in which RPs appear to repair island violations caused by empty operator movement.

Goldsmith (1981) (cited in Falk, 2002) notes that in Igbo, both RPs and gaps are sensitive to complex NP islands.

²⁶ Island phenomenon is discussed by Özsoy (1996) in Turkish wh-questions. She makes a distinction between Theta and Theta' marked wh-phrases and discusses their Subjacency effects when they are moved out of islands.

²⁷ Since there is no clear tendency in the (un)grammaticality of the examples in this section, I marked them according to the majority of native speakers' judgments. Thus, some of the examples can be judged differently than the text. It may also be the case that some ungrammatical examples are rescued by inserting various lexical items such as postpositions or changing the order of the embedded clauses.

4.3.1.1. Adjunct Island:

- (17) a. * $[_{CP1} [_C [_{IP} \text{Ahmet}'in}_j [_{I'} t_i \text{gör-me-si}_j \text{nden az önce}]]]] [_{CP2} OP_i [_C$
 Ahmet-GEN see-MA-AGR-ABL little before
 $[_{IP} \text{Ali}'nin}^k [_{I'} \text{gel-diğ-i}^k]]]] \text{kadın}_i$
 Ali-GEN come-DIK-AGR woman
 “The woman Ali came before Ahmet saw (her)”

- b. * $[_{CP1} [_C [_{IP} \text{Ahmet}'in}_j [_{I'} \text{kendisi-ni}_i \text{gör-me-si}_j \text{nden az önce}]]]]$
 Ahmet-GEN herself-ACC see-MA-AGR-ABL little before
 $[_{CP2} OP_i [_C [_{IP} \text{Ali}'nin}^k [_{I'} \text{gel-diğ-i}^k]]]] \text{kadın}_i$
 Ali-GEN come-DIK-AGR woman
 “The woman Ali came before Ahmet saw her”

- (18) a. ? $[_{CP1} [_C [_{IP} \text{Ahmet}'in}_j [_{I'} t_i \text{takip ed-er-ken}]]]] [_{CP2} OP_i [_C [_{IP} \text{pro}_j$
 Ahmet-GEN follow-AOR-kAn
 $[_{I'} \text{kaybet-tiğ-i}_j]]]] \text{kadın}_i$
 lose-DIK-AGR woman
 “The woman Ahmet lost while following (her)”

- b. ? $[_{CP1} [_C [_{IP} \text{Ahmet}'in}_j [_{I'} \text{kendisi-ni}_i \text{takip ed-er-ken}]]]] [_{CP2} OP_i [_C$
 Ahmet-GEN herself-ACC follow-AOR-kAn
 $[_{IP} \text{pro}_j [_{I'} \text{kaybet-tiğ-i}_j]]]] \text{kadın}_i$
 lose-DIK-AGR woman
 “The woman Ahmet lost while following her”

(17a-b) illustrate the movement of the empty operator from a postpositional adjunct island. As the ungrammaticality of these examples indicates, both the trace and the

resumptive pronoun are sensitive to adjunct islands. Therefore, RPs are not used as saving devices to repair the island violations. In (18a-b), on the other hand, both the trace of the empty operator and the RPs are insensitive to the adjunct island as indicated by the fact that these structures are judged to be less ungrammatical than the ones in (17a-b). However, it should be pointed out that these adjunct islands are not true adjunct islands because they can also be treated as parasitic gap constructions. I assume that they are weak adjunct islands.

4.3.1.2. Complex NP Island:

- (19) a. $*[_{CP1} OP1_i [_{C'} [_{IP} Av_{C1-nin_j} [_{I'} [_{CP2} OP2^k [_{C'} [_{IP} t^k [_{I'} t_i korkut-an]]]]]]]$
- hunter-GEN frighten-AN
- aslan-1^k öldür-düğ-ü_j]]]] çocuk_i
- lion-ACC kill-DIK-AGR kid
- “The kid the hunter killed the lion that frightened (him)”

- b. $?*[_{CP1} OP_i [_{C'} [_{IP} Av_{C1-nin_j} [_{I'} [_{CP2} [_{C'} [_{IP} [_{I'} kendisi-ni_i korkut-an]]]]]]]]]$
- hunter-GEN himself-ACC frighten-AN
- aslan-1 öldür-düğ-ü_j]]]] çocuk_i
- lion-ACC kill-DIK-AGR kid
- “The kid the hunter killed the lion that frightened him”

- (20) a. $*[_{CP1} OP1_i [_{C'} [_{IP} [_{CP2} OP2_j [_{C'} [_{IP} t_j [_{I'} t_i elma ver-en]]]]]]] adam-ın;$
- apple give-AN man-GEN
- [_{I'} öldür-düğ-ü_j]]]] kadın_i
- kill-DIK-AGR woman
- “The woman the man killed who gave apple to (her)”

- b. $[_{CP1} OP1_i [_C [_{IP} [_{CP2} OP2_j [_C [_{IP} t_j [_R kendisi-ne_i elma ver-en]]]]]]]$
 herself-DAT apple give-AN
 adam-ın_j [_R öldür-düğ-ü_j]]]] kadın_i
 man-GEN kill-DIK-AGR woman
 “The woman the man killed who gave apple to her”

Both (19a-b) and (20a-b) contain complex NP islands. Movement of the empty operator out of complex NPs in (19a-b) is ruled out as the ungrammaticality of the examples indicates.²⁸ Moreover, the movement of OP1 over an occupied CP (CP2) in the (a) sentences of (19-20) violates relativized minimality (Rizzi, 1990). What is significant at this point is that the same island construction in (20a-b) behaves differently with respect to whether they contain a trace or a corresponding resumptive pronoun. In (20a), the movement of the null operator is blocked. In (20b), the resumptive pronoun is inserted and the structure is judged to be more grammatical than (20a). Therefore, we can conclude that the resumptive pronoun functions as a saving device for the island violation in (20-a).

4.3.1.3. Wh-Island:

- (21) a. $*[_{CP1} OP_i [_C [_{IP} pro_j [_R [_{CP2} [_C [_{IP} kim-in^k [_R t_i evlen-diğ-i^k-ni]]]]]]]]]$
 who-GEN marry-DIK-AGR-ACC
 bil-me-diğ-im_j]]]] kadın_i
 know-NEG-DIK-AGR woman

²⁸ See Kornfilt (2000a:125-126). She points out that Turkish relative clauses exhibit island effects, at least where relativization out of relative clauses are concerned. She discusses these island violations in terms of subadjacency effects. See also Kornfilt, Kuno & Sezer (1980) for island constraints especially Complex NP Constraint in Turkish.

“The woman I don’t know who married (her)”

- b. $??/*[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{CP2} [_{C'} [_{IP} kim-in^k [_{I'} kendisi-yle_i evlen-$
 who-GEN herself-COM marry-
 $diğ- i^k-ni]]]] bil-me-diğ-im_j]]]] kadın_i$
 DIK-AGR-ACC know-NEG-DIK-AGR woman

“The woman I don’t know who married her”

- c. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{CP2} [_{C'} [_{IP} kendisi-yle_i [_{IP} kim-in^k [_{I'} t_i evlen-$
 herself-COM who-GEN marry-
 $diğ-i^k-ni]]]]] bil-me-diğ-im_j]]]] kadın_i$
 DIK-AGR- ACC know-NEG-DIK-AGR woman

“The woman I don’t know who married her”

- (22) a. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{CP2} [_{C'} [_{IP} kim-in^k [_{I'} t_i döv-düğ-ü^k-nü]]]]$
 who-GEN beat-DIK-AGR-ACC
 $bil-me-diğ-im_j]]]] kadın_i$
 know-NEG-DIK-AGR woman

“The woman I don’t know who has beaten (her)”

- b. $[_{CP1} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{CP2} [_{C'} [_{IP} kim-in^k [_{I'} kendisi-ni_i döv-düğ-ü^k-$
 who-GEN herself-ACC beat-DIK-AGR-
 $nü]]]] bil-me-diğ-im_j]]]] kadın_i$
 ACC know-NEG-DIK-AGR woman

“The woman I don’t know who has beaten her”

- c. [CP₁ OP_i [C' [IP pro_j [I' [CP₂ [C' [IP kendisi-ni_i [IP kim-in^k [I' t_i döv-düğ-
herself-ACC who-GEN beat-DIK-
ü^k-ni]]]]]] bil-me-diğ-im_j]]]] kadın_i
AGR- ACC know-NEG-DIK-AGR woman
 “The woman I don’t know who has beaten her”

(21a-b) are instances of the movement of an operator from a wh-island. Both the trace and the resumptive pronoun are ungrammatical in these examples. Therefore, they are sensitive to wh-islands. In (21c), on the other hand, the resumptive pronoun is fronted through topicalization and the structure is grammatical. The difference between the grammaticality of (21c) and the ungrammaticality of the (21a-b) can be explained by the fact that in (21c) the resumptive pronoun is not within the scope of the wh-word. Since it is topicalized, it is not within the wh-island. Hence, the structure is grammatical. In (22a-b), The RPs and the traces seem to be insensitive to the wh-island as the grammaticality of the examples show.

In view of facts similar to the ones presented above, Mc Closkey (1990, 2002), Shlonsky (1992), Aoun, Choueiri & Hornstein (2001), Boeckx (2001) argue that resumptive pronoun constructions may or may not involve movement. Therefore, Aoun, Choueiri & Hornstein (2001) and Mc Closkey (2002) among others argue by considering the sensitivity of RPs to some islands that the operator which binds the resumptive pronoun moves from its base position to the Spec-CP position via successive cyclic movement. However, as pointed out in Willis (2000), this analysis predicts that RPs are phonetic spell-outs of traces which in turn implies that RPs and traces have the same numeration. As pointed out in section 4.1, RPs and traces in Turkish have different numeration since RPs have their own semantic content.

Boeckx (2001) proposes a different type of movement strategy for RPs. According to Boeckx's alternative movement strategy, RPs are merged with their antecedents in their base position.²⁹ The empty operator moves to Spec-CP position and the resumptive pronoun is stranded in its base position. The movement strategy proposed by Boeckx (2001) will account for the facts of Turkish RPs. As discussed in Chapter 3, reconstruction effects serve as evidence for the claim that Turkish relative clauses can be generated by Head Raising. Since reconstruction is a diagnostic for movement (Chomsky 1995, Aoun, Choueiri & Hornstein 2001, Aoun & Li 2003), a derivation involves movement if reconstruction occurs.

In Turkish, a quantified phrase in the subject position of the relative clause has scope over a possible bound pronominal in the relative clause. In order for this to take place QP has to c-command the bound pronominal. Therefore the bound pronominal has to reconstruct back to the relative clause. We accounted for these facts in section 3.3 and pointed out that relative clauses with the traces do involve movement due to the reconstruction effects. If resumptive pronoun constructions involve movement as well, we should expect those structures to exhibit reconstruction effects too. Indeed, RPs show reconstruction effects as the following example (23) indicates:

²⁹ Boeckx (2001) does not take the resumptive pronoun to be a lexicalized copy of its antecedent. He claims that RPs and their antecedents are distinct syntactic entities. The chains in which RPs and their antecedents are present are formed by subextraction under A'-movement. Boeckx's movement strategy is the first movement theory of resumption which can account for the island insensitivity problem of RPs.

- (23) ?[_{CP} [_C [_{IP} Herkes-in_i [_{I'} kendisi-ni_j davet et-tiğ-i_i]]]] [[kendi_i]
 everyone-GEN himself-ACC invite-DIK-AGR self
 arkadaş-ı_j
 friend-AGR
 “One’s own friend that everyone invite him”

Example (23) includes a bound pronominal in the relativized head position which has to reconstruct back to a position within the relative clause in order to be c-commanded by the quantified phrase. Although the position which the bound pronominal must reconstruct is occupied by the resumptive pronoun, the structure is grammatical. Therefore, it can be argued that the relative clause which includes a resumptive pronoun involves movement since it involves reconstruction effect with respect to the binding requirements of the QP.

Moreover, relative clauses with RPs also exhibit reconstruction effects due to the scope properties of the quantified expressions. In this case, the head reconstructs 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. Consider the following example in (24):

- (24) [_{CP} [_C [_{IP} [_{QP1} Her doktor-un_i] [_{I'} kendisi-ni_j muayene et-tiğ-i_i]]]] [_{QP2}
 every doctor-GEN himself-ACC examine-DIK-AGR
 üç hasta_j]
 three patient
 Reading 1: “The three patients who every doctor examined”
 Reading 2: “Different three patients every doctor examined”

Note that we accounted for the scope reconstruction of the relative clause with a trace in section 3.3.2. (24) above, on the other hand, includes the resumptive pronoun and two quantified phrases: ‘her doktor-un’ (QP1) in the subject position of the relative clause and ‘üç hasta’ (QP2) in the head position. As indicated above, example (24) is ambiguous between two readings. According to reading 1, the QP1 does not scope over QP2, hence there is no reconstruction involved. According to reading 2, on the other hand, 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. The resumptive pronoun is allowed in the position where QP2 reconstructs itself. Therefore, we can conclude that RPs involve movement like traces.³⁰

4.3.2. Successive cyclic movement

In this section, it will be argued that the movement in resumptive pronoun constructions is a successive cyclic movement by which the empty operator moves to the highest Spec-CP position via intermediate steps and it will be explained how this successive cyclic movement takes place.

Successive cyclicity is based on the assumption that movement must be as short as possible (Chomsky, 1995). I assume, following Mc Closkey (2002:186), that wh-phrases or null-operators must ultimately end up in the highest Spec position of CP

³⁰ Note that example (24) differs from the one given in earlier sections of the chapter in that this example includes two QPs rather than one and the scope relation between those two QPs is different from that of the QP in the earlier example.

be assumed that the intermediate steps are triggered by [+EPP] feature. Therefore, an operator lands at every intermediate steps which has a [+EPP] feature.³¹

4.4. RPs as the Highest Subject

In this section, the licensing conditions of the resumptive pronoun in the subject position of a relative clause with $-(y)An$ strategy will be discussed. Note that the $-(y)An$ strategy differs from the corresponding $-DIK$ and $-(y)AcAK$ strategies in that it does not have overt agreement. Without any agreement, it cannot license a subject in Spec-IP position. However, as pointed out in the introductory Chapter, a resumptive pronoun can also occur in the subject position of a $(y)An$ clause.³² The example below is (1d) that is repeated here as (27):³³

³¹ Boeckx (2003:6) rejects this option. He argues that EPP is not a feature like case and Φ features, which one can check independently. Otherwise one would expect anything to be able to satisfy Spec-TP for instance.

³² Note that the occurrence of the RPs in subject position of the $-(y)An$ clauses is less readily judged to be grammatical than the occurrence in subject position of the corresponding $-DIK$ clauses. This may be due to a cross-linguistic fact of RPs in highest subject position since the same RPs are also less common in Spanish as reported by Suner (1998) and totally absent in Irish.

³³ The example in (27) is judged to be ungrammatical by Kornfilt (2000a) and discussed as violation of a generalized version of the Condition B of the Binding theory. This generalized version of condition B is A'-Disjointness Requirement which is very close to Mc Closkey's Highest Subject Restriction (See footnote 4 in Chapter 1). A'-Disjointness Requirement holds that a pronoun must be A'-free in its CFC. The CFC of this pronoun 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.

According to (i) above, a resumptive pronoun has to be free in its A'-governing category. The question at this point is what the CFC for the RPs in Turkish is. If Kornfilt is correct in her assumption that CFC is the CP in Turkish, the following example is predicted to be ungrammatical since it is not free in its A'-governing category:

- (ii) kendisi-ni_i gör-düğ-üm kadın_i
 self-ACC see-DIK-POSS woman
 "The woman that I saw."

As can be observed in the example, it is bound by the null operator in the Spec-CP position. However, if we assume that the CFC is IP rather than CP, A'-Disjointness Requirement does hold in (ii) above, since the pronoun has a subject within its CFC. Hence the pronoun is not bound in its A'-governing category. However, this analysis is not without problems. If we consider the RPs in subject position, we have to redefine the CFC for the RPs. If we assume that the CFC is AgrP, we can account for the RPs in subject position. The agreement on the resumptive pronoun can license a phonologically null element *say pro*, and the *pro* can be a potential subject for the resumptive pronoun in the subject position.

One problem occurs with this analysis: If the CFC is AgrP for the RPs in subject position, what is the governor for the pronoun in the example (27) of the Chapter? Can this *pro* also be a governor for the resumptive pronoun? I assume no, since the subject pronoun has to be governed by INFL and receives nominative case. Moreover, this analysis requires the RPs that are object of postpositions to be treated in a similar way since they have postpositional governors with the overt agreement content.

Following this, we can argue that RPs do not obey A'-Disjointness Requirement that is a generalized version of condition B of Binding Theory. This shows that A'-Disjointness requirement can be subject to parametric cross-linguistic variation (Willis, 2000:548).

- (27) [CP OP_i [C' [IP t_i / kendisi_i [I' Ali'yi sev-en]]]] kadın_i
 self Ali-ACC love-AN woman
 “the woman (herself) who loves Ali”

What is significant is that in (27), the RP is in nominative case and sits in the highest subject position of a -(y)An clause which does not have an agreement marker on the verb. If there is no agreement marker on the verb, how can this pronominal NP be licensed, i.e. case assigned by a weak INFL? The possible answers to this question will be discussed below.

Moreover, there is one further evidence for the claim that A'-Disjointness requirement is subject to parametric variation comes from the differences between the Mandarin Chinese and Turkish. Aoun & Li (1994:3-4) point out that in Mandarin Chinese, a pronoun in an embedded subject position cannot be bound by a quantificational antecedent in an A'-position at LF and explain this fact with the violation of A'-Disjointness Requirement. In Turkish, on the other hand, a pronoun in the embedded subject position can be bound by a quantificational antecedent at LF as the following example indicates:

- (iii) [CP OP_i [C' [IP Herkes-in_j [I' kendisi-nin_j [I' t_i kazan-dığ-ı]]]]-n₁ iddia et-tiğ-
 everyone-GEN himself-GEN win-DIK-AGR ACC claim-DIK-
 i]]]] yarış_i
 AGR race
 “The race everyone_i claims that he_i won”

The pronoun in the embedded subject position is bound by a quantificational antecedent and the structure is grammatical. The grammaticality of the example above indicates that A'-Disjointness requirement does not hold in Turkish while it can rule out the corresponding Mandarin Chinese structure. Therefore, the A'-Disjointness requirement is subject to parametric variation.

4.4.1. Agr constructions in Turkish relative clauses

Agreement system in Turkish relative clauses is well discussed in the literature (Kornfilt 1984, Özsoy 1994). Özsoy (1994)³⁴ among others claims that all NPs in Turkish have agreement projection. Therefore, both -(y)An and –DIK strategies have [+AGR] feature. The two strategies are represented in (28a-b) below.

(28) a. $[_{CP} OP_i [_{C'} [_{AgrP} \text{pronoun-}\emptyset_i / t_i [_{Agr'} \text{-(y)An} \dots\dots\dots]]]]$

b. $[_{CP} OP_i [_{C'} [_{AgrP} \text{pronoun-GEN}_i / t_i [_{Agr'} \text{-DIK} \dots\dots\dots]]]]$

In (28a) the representation of the -(y)An participle is given. Since it has an abstract [+AGR] feature, it can license both a trace and a resumptive pronoun in Spec position of the AgrP. In (b), the overt Agr in –DIK participle licenses its Spec position and assigns it GENITIVE case. Therefore, we can assume that the abstract Agr in the -(y)An participle can license a pronominal subject (a resumptive pronoun) in Spec-AgrP position. Moreover, there is no evidence for the inability of the possibility for NPs to receive case when there is no overt Agr element. As Kornfilt (2000b:193) points out, UG must make available the possibility for NPs to receive case in the absence of an

³⁴ Özsoy (1994) discusses the relative clauses in Turkish within the generative framework. Her main point is the comparison of relative participles -(y)An and –DIK with respect to the agreement morphology they contain. She claims that both –DIK and -(y)An strategies contain agreement markers. Therefore they both have agreement projections and are derived from the same underlying structures.

overt agreement. Therefore, it can be argued that the resumptive pronoun in subject position of a $-(y)An$ clause is assigned default nominative case.

4.4.2. Implications of EPP

The second possible answer to the question is to assume that not only $-DIK$ but all relativization morphemes including $-(y)An$ have a $[+EPP]$ and $[+pronominal]$ features which can license a possible overt subject like the one that is a resumptive pronoun in (27).³⁵ Therefore, the overt resumptive pronoun can occur in subject position of the $-(y)An$ clause in order to satisfy the EPP. Hence, it is not a crucial property for the relative morphology to have an agreement marker on it.

At this point it is possible to assume that $-(y)An$ which has $[+EPP]$ and $[+pronominal]$ features moves to the head position of the CP with a familiar I to C movement. Having $[+EPP]$ and $[+pronominal]$ features, the C head agrees with its Spec position in a regular Spec-head agreement. According to this view, the Operator in Spec-CP has the same features. The evidence for this claim comes with the fact that RPs in Turkish have the agreement marker $-sI$. This possessive morpheme is the third person agreement marker in Turkish. This Agr marker in nominal constructions is argued to license a *pro* subject in Spec-AgrP as the following example indicates:

(29) [*pro*_i kari-s_i]

wife-AGR

“his wife”

³⁵ Mc Closkey (2002:203) claims that head C of a CP can have a *wh*-feature and an EPP feature. $[+pronominal]$ feature of operators is discussed by Suner (1998).

Example (29) above shows that the Agr marker selects a *pro* subject. In the resumptive pronoun case, I assume that the Agr marker selects an Operator with the [+pronominal] and [+EPP] features. The operator moves to the Spec-CP position and enters in agreement with the head C filled by $-(y)An$ which has the same features. This is compatible with the movement analysis of the RPs presented here. The operator and the resumptive pronoun merge in their base position. The operator moves to the Spec-CP position and the resumptive pronoun stays in its original position.

4.5. The Antecedent problem

In this section, I will discuss the nature of the operator which binds the resumptive pronoun and the syntactic motivation for the presence of this operator. The source of the operator i.e. where it is generated and its movement will also be investigated. It will be argued that since RPs are variables at the level of S-Structure, there must be an operator in an A'-position which binds the RPs.

4.5.1. The source of the antecedent

The evidence for the presence of the operator in relative clauses comes with a well known fact that parasitic gaps require the presence of a quantifier like element in A'-position for their licensing (Chomsky, 1981). Therefore, if there is no relative pronoun in a relative clause, we have to assume that there should be an empty operator in Spec-CP position which is base generated in that position or moved to that position from which it is base generated. Since the insertion of an element after

D-Structure is prohibited, the operator has to be base generated somewhere then moves (See also footnote 24 in this section).

4.5.1.1. Moved empty operator

As it is pointed out in earlier sections, the relative clauses with resumptive pronouns involve the movement of the null operator to Spec-CP. The (in)sensitivity of the RPs to the islands is not very crucial at this point. Ross (1967) (cited in Boeckx, 2003:65) who introduced the island constraints to literature points that movement is unbounded. Crossing an island in and of itself did not suffice to yield a deviant output. Only certain types of rules are sensitive to the islands. While chopping rules and feature changing rules are sensitive to islands, copying rules are insensitive to islands and resumption is discussed to be a copying rule by Ross. Therefore, I assume a difference between the movement of the null operator from an island context and the movement from a non-island context. If there is no island, the successive cyclic movement of the operator takes place with the checking of its features somewhere. If there is an island and the extraction of the empty operator yields a grammatical output, the extraction of the operator undergoes no feature checking process. The A'-dependency between the operator and the resumptive pronoun it binds is established under Match.

4.5.1.2. Base generated empty operator in Spec-CP

It is argued in Cinque (1990) that languages with RPs are allowed to base-generate the operators in A'-position and freely index them at S-Structure. This will predict

the fact that the RPs can license parasitic gaps and behave like variables, which is the case in Turkish as illustrated in the section 4.2.3³⁶ In fact, if the movement of the operator is prohibited by island constraints or other blocking categories, it must be base generated in Spec-CP in order for it to bind the resumptive pronoun.

Note that the occurrence of RPs in certain positions is obligatory in Turkish as stated in Chapter 1. In certain adjunct positions like postpositional complements, the movement of the empty operator is blocked. Hence, the operator must be base-generated in Spec-CP to bind the resumptive pronoun within the postpositional phrase. The following example (6) in Chapter 1 is repeated here as (30):

- (30) a. $[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} kendisi-ne_i göre] hasta ol-duğ-um_j]]]$
self-DAT according ill be-DIK-AGR
 kadın_i
 woman
 Intended reading: “The woman according to whom I am ill”

- b. $*[_{CP} OP_i [_{C'} [_{IP} pro_j [_{I'} [_{PP} t_i göre] hasta ol-du-ğum_j]]] kadın_i$
according ill be-DIK-AGR woman
 Intended reading: “The woman according to whom I am ill”

³⁶ Shlonsky (1992:464) rejects this claim since RPs in Hebrew cannot license parasitic gaps at the level S-Structure. Instead, he argues that the operator is base generated in Spec-CP position which he defines as an A- position. Then the operator moves to an A'-position at the level LF to bind the resumptive pronoun. This is not the case in Turkish since RPs in Turkish can license parasitic gaps, which means that they are variables at the level of S-Structure.

The base generated operator and its co indexation at the level LF is also pointed out by Safir (1986:682).

As the example (30) indicates the movement of the operator is blocked since the PPs are blocking categories for outside government. Recall that the ungrammaticality of the movement can be explained in terms of ECP, as pointed out in Chapter 1. Therefore, we have to conclude that the A'-dependency between the resumptive pronoun and its antecedent is not via movement of the operator. Rather, the operator has to be base generated in Spec-CP position. The availability of this option is well discussed in literature (Aoun, Choueiri & Hornstein 2001, Mc Closkey 1990, 2002, Safir 1996 among others).

Consequently, Mc Closkey (2002) argues that UG must allow the existence of complex chains in which some pair-wise links are negotiated by movement and some are negotiated by binding of a resumptive element.

4.6. Conclusion

The chapter investigated the nature of A'-dependency between the RPs and their antecedents and pointed out that RPs in Turkish relative clauses are not last resort expressions or spell-outs of traces as in some languages (English and Hebrew) but are syntactic variables as in Irish, Polish and Swedish bound by an empty operator in Spec-CP. The antecedent of the resumptive pronoun moves to Spec-CP from where it is base generated in the relative clause. I compared the RPs and traces in terms of their semantic differences in certain constructions and pointed out that RPs have their own semantic content that is, they are not last resort expressions.

The detailed investigation of the behaviors of RPs in Condition C of Binding Theory, coordination structures and parasitic gap constructions revealed that they are syntactic variables bound by a null operator at the level of S-Structure. The comparison of Turkish RPs with RPs in other languages demonstrated some cross-linguistic facts regarding the nature of RPs in Universal Grammar. We have seen that Polish and Persian are similar to Turkish in that they allow RPs to license parasitic gaps at the level of S-Structure. Similarly, RPs in Irish, Hebrew, Palestinian Arabic, Lebanese Arabic, Persian, Polish and Turkish exhibit Condition C violations (strong and weak crossover). RPs in Turkish are also similar to those in other languages such as Swedish, Polish and Persian in that they coordinate with traces in certain coordination structures.

I have offered a movement analysis for RPs in Turkish relative clauses. The investigation of RPs within the islands and reconstruction effects were taken to be evidence for this movement analysis. The investigation of the islands in other languages revealed some similarities and differences between Turkish and other languages. Unlike Turkish, RPs in other languages show strong tendencies with respect to islands. In Igbo for instance, both gaps and RPs are sensitive to Complex NP islands. In Turkish, on the other hand, RPs are sensitive to Complex NP island in some relative clauses but not in others. Regarding the nature of the movement of RPs, it was also pointed out that the movement takes place as a successive cyclic movement. This successive cyclic movement of the operator is also argued for the same constructions in other languages such as Irish and Welsh.

The highest subject problem introduced in Chapter 1 was discussed in this chapter. A solution based on a claim which assumes that the relative participle $-(y)An$ has an Agr which can license a possible resumptive pronoun subject in Spec-IP position in a similar way the participle $-DIK$ does has been offered for this problem. The implications of EPP were also proposed as answer to this question.

I have also introduced the antecedent problem and assumed that the antecedent of a resumptive pronoun is an empty operator in Turkish. The operator either moves to Spec-CP position from the relative clause or base generated in Spec-CP.



CHAPTER V

CONCLUSION

This study analyzed the distributional properties of RPs, relative clause formation and the nature of the A'-dependency between the resumptive pronoun and its antecedent in Turkish. The following questions have been raised and discussed: What are the distributional properties of RPs in Turkish? Which of the two relative clause formation strategies can predict the relative clauses in Turkish? What is the nature of A'-Dependency between the RPs and their antecedents?

With respect to the first question, in Chapter 1, it was been argued that Empty Category Principle can account for the alternation between the traces and corresponding RPs in Turkish relative clauses. It is pointed out that while RPs are optional in internal complement, second complement, embedded subject and second subject positions, they occur obligatorily in certain adjunct positions such as postpositional complement and VP-adjunct positions. It is noted that despite the overt similarity in the structures, adjunct RPs behave differently with respect to optional vs. obligatory occurrence of RPs. It appears that some explanations based on the semantic and pragmatic differences between these structures can provide a systematic distinction between them. The thesis left this issue for future investigations.

What was also left for future research is the resumptive use of regular personal pronouns. Although descriptive grammars note that the regular personal pronouns

cannot be used resumptively, some speakers find acceptable some occurrences of them in certain environments. One interesting point revealed in the discussion of RPs is that in Turkish, RPs can only have a human referent while most of the other languages have RPs with non-human referents. This issue too needs future research based on semantics and pragmatics.

In Chapter 2, the theoretical background and previous studies were introduced. We summarized the core points of these studies and touched upon some cross-linguistic facts about the nature of RPs in languages. Three different resumption strategies are discussed and argued to be reflections of different properties of the RPs in different languages. It is pointed out that the studies on RPs reveal many points for the nature of computational system and the interface levels. We also noted that studies on language processing and the acquisition of RPs play an important role in determining the nature of RPs. They are still new areas in Turkish linguistics and need investigation.

Chapter 3 raised the second question of the study and discussed the two relative clause formation strategies in Turkish. Since different types of relative clauses (adjunct relativizations and headless relative clauses vs. relative clauses which include reconstruction effects) require different derivations, it is pointed out that relative clause constructions in Turkish are derived by empty operator movement proposed by Chomsky (1977) and head raising by Kayne (1994). There is no considerable difference between the two approaches in terms of the nature of A'-dependency between the resumptive pronoun and its antecedent.

The question of whether the two relative clause formation strategies result in a complementation or adjunction structure is also addressed in this chapter and by considering the syntactic structures of prenominal modifiers and Turkish facts, it is pointed out that Turkish relative clauses are adjunction structures.

The major concern of Chapter 4 is the A'-dependency between the resumptive pronoun and its antecedent. The chapter concludes that RPs in Turkish relative clauses can be treated as syntactic variables bound by an empty operator in Spec-CP position.

The investigation of other languages and the discussion of Turkish data revealed many cross-linguistic facts on the nature of resumption. Some principles such as 'Highest Subject Restriction' which is applicable for many languages using resumption productively, does not hold for Turkish. Therefore, it is concluded that the principle is subject to parametric variation. What is more interesting at this point is that languages which belong to different language families show similar characteristics (Irish, Polish, Swedish, Persian and Turkish RPs as variables and English, Hebrew RPs as last resort expressions) in terms of RPs and resumption. With this observation, it can be argued that the studies on RPs and resumption will help to determine the exact nature of Universal Grammar.

To conclude, the thesis investigated the nature of RPs in Turkish. The discussion of the nature of A'-dependency between the resumptive pronoun and its antecedent in Turkish has contributed to the fact that our computational system has different interface levels (DS-SS-PF-LF).

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