ON SCRAMBLING IN TURKISH

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ON SCRAMBLING IN TURKISH

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Thesis Abstract

Tamer Akan, “On Scrambling in Turkish”

This thesis aims to investigate the nature of the scrambling phenomenon in Turkish under the assumptions of minimalist program, which is the last phase of generative grammar. It focuses on the type of movement observed in scrambling in Turkish, namely A vs A-bar movement, the landing sites for both clause-internal and inter-clausal scrambling, the distance between the source and the landing site of the movement, the direction of movement and similarities and asymmetries between leftward and rightward scrambling.

The canonical word order is considered to be SOV for Turkish. However, the application of certain movement operations may yield six different word orders (SOV, SVO, OSV, OVS, VSO, VOS), which indicates that Turkish is a scrambling language. Scrambling, which was first defined as free word order, is seen as a result of totally optional movement operations by some linguists and as a result of certain obligatory movement operations by some others. With respect to the nature of scrambling in Turkish, it has been argued that it is an instance of A-bar movement. Contrary to this view, it has been argued that clause-internal scrambling is an instance of both A-movement and A-bar movement.

In this thesis, it is argued that scrambling is compatible with the last resort principle of the minimalist program. Based on the arguments on the syntactic properties exhibited by the scrambled constituents, it is claimed that scrambling to both pre-verbal position and post-verbal position involves A-bar movement. The driving force of movement is argued to be information structure, which feeds syntax. Also, it is claimed that different types of focus play crucial role in scrambling phenomenon in Turkish. This kind of an analysis provides indirect support for the analysis where it is also argued that scrambling must be seen as A-bar movement.

Thus, it follows that scrambling is a feature driven operation, indicating that it is a syntactic operation rather than being an optional operation, which as a result makes scrambling compatible with the last resort principle.

Tez Özeti

Tamer Akan, "Türkçe'de Çalkalama Üzerine"

Bu tezin amacı, üretici dilbilgisinin son evresi olan Minimalist Programın varsayımları çerçevesinde Türkçe'de çalkalama olgusunun doğasını araştırmaktır. Çalışmanın odak noktaları, Türkçe'deki çalkalamada gözlemlenen yer değiştirmenin türü, tümce içi ve tümceler arası çalkalamada hedeflenen konumlar, yer değiştirmenin kaynağı ve varış konumu arasındaki uzaklık, yer değiştirmenin yönü ve sola çalkalama ile sağa çalkalama arasındaki benzerlikler ve faklılıkların niteliğidir.

Türkçe'de sözcük dizimi Özne-Nesne-Yüklem olarak varsayılmaktadır. Bununla birlikte, belli kaydırma eylemlerinin uygulanması altı farklı sözcük dizimini ortaya çıkarabilir (ÖNY, ÖYN, NÖY, NYÖ, YÖN, YNÖ) ve bu da Türkçe'nin bir çalkalamalı dil olduğunu gösterir. İlk kez serbest sözcük dizimi olarak adlandırılan çalkalama, bazıları tarafından tamamen seçime bağlı kaydırma işlemlerinin sonucu olarak görülürken, bazıları tarafından da zorunlu kaydırma işlemlerinin sonucu olarak görülür. Türkçe'deki çalkalamanın doğasıyla ilgili olarak, bunun bir A-bar yer değişimi olduğu savunulmaktadır. Bu görüşün aksine, Türkçe'deki tümce içi çalkalamanın hem A-yer değişimi hem de A-bar yer değişimi olabileceği de tartışılmaktadır.

Bu tezde, Türkçe'de çalkalamanın minimalist programın Son Çare ilkesiyle uyumlu olduğu savunulmaktadır. Çalkalanan öğeler tarafından sergilenen sözdizimsel özelliklere bakarak, eylem öncesi ve eylem sonrası çalkalamanın A-bar yer değişimi olduğu öne sürülmekte, harekete geçiren etmenin ise, sözdizimini besleyen bilgi yapısı olduğu savunulmaktadır. Aynı zamanda, farklı odak türlerinin Türkçe'deki çalkalama olgusunda önemli rol oynadığı ortaya çıkarılmıştır. Bu tür bir inceleme, çalkalamanın bir A-bar yer değişimi olarak görülmesi gerektiği yönündeki yaklaşıma dolaylı olarak destek olur.

Böylece, çalkalamanın bir dilbilgisel özellik tarafından tetiklenen işlem olduğu sonucuna varılmaktadır. Bunun da çalkalamanın, seçime bağlı bir işlem olmaktan çok, onu Son Çare ilkesiyle uyumlu hale getiren sözdizimsel bir işlem olduğunu gösterdiği savunulmaktadır.

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CONTENTS

CHAPTER 1

INTRODUCTION

1.1 Aim

This study investigates the scrambling phenomenon in Turkish, focusing on the following:

- The nature of movement observed in scrambling, namely A-movement vs A-bar movement and the motivation(s) for such movement.
- The landing sites both for clause internal and inter-clausal scrambling.
- The distance between the source and the landing site of the movement
- The direction of movement and its consequences
- Similarities and asymmetries between leftward and rightward scrambling.

Scrambling is an interesting phenomenon in that it seems to be an optional movement, which conflicts with the last resort principle of the minimalist program, according to which an element cannot move unless it has to do so. The questions above will be given unitary answers because the motivation of movement is closely related to the landing sites of movement.

The canonical word order is considered to be SOV for Turkish (Erguvanlı, 1984). However, the application of certain movement operations may yield six different word order patterns, namely OSV, OVS, SOV, SVO, VOS and VSO, which indicates that Turkish is a scrambling language. Scrambling, which was defined as free word order by Ross (1967), is seen as a result of totally optional

movement operations by some (e.g. Saito, 1989) and it is considered as a result of certain obligatory movement operations by others (e.g. Miyagawa, 2003).

With respect to the nature of scrambling in Turkish, it has been argued by Kural (1993) that scrambling is an instance of A-bar movement. Contrary to Kural (1993), Öztürk (2005) has argued that clause-internal scrambling can also be an instance of A-movement.

One of the issues that I will try to investigate in this thesis is whether scrambling is A or A-bar movement. Based on the syntactic properties exhibited by the scrambled constituents and their relations with information structure, I will argue that leftward scrambling involves both A-movement and A-bar movement while movement to the postverbal position can also show characteristics of both A- and A-bar scrambling. Another point I will try to investigate is the reconstruction sites of the constituents scrambled to the postverbal position. Relying on the scope properties of postverbal quantifiers, I will argue that postverbal constituents may reconstruct to a place where they are not base generated since they also display A-movement characteristics before they are scrambled to a postverbal position. The last point I will try to argue is that scrambling is a feature driven operation, indicating that it is a syntactic operation rather than being an optional operation.

1.2 Theoretical Background

In this section, I will give the theoretical background under the assumptions of which this thesis is written.

1.2.1 Government and Binding Theory (GB)

According to GB, based on the ideas developed in Chomsky (1981, 1982, 1986a, 1986b), it is assumed that there are some universal principles that govern all human languages. Besides these principles, which form the basis for Universal Grammar (UG), there are certain parameters that differ from language to language.

GB theory assumes that there are four distinct levels of representation: deep structure, surface structure, logical form (LF) and phonetic form (PF). Deep structure is the level where DPs get their theta roles. However, in syntactic structures, a DP can appear in a position different from where it is base generated. This level of representation is called the surface structure. The structure reaches this level after applications of movement operations relying on certain motivations. One copy of the structure in the surface structure is sent to LF, which is the level where the structure is semantically interpreted, another copy is sent to PF, which is the level where the structure is phonetically realized.

There are also different sub-components of GB, which are in the core of GB and which regulate the internal structure of the sentence. Among these sub-components are theta theory, case theory, control theory and binding theory.

Theta theory is the part of GB, which controls the assignment of theta roles to arguments of predicates and hence establishes the relation between a predicate and its arguments. Theta theory assumes that theta roles are assigned in deep structure. According to theta criterion, as it appears in Haegeman (1994);

a) Each argument is assigned one and only one theta role.
b) Each theta role is assigned to one and only one argument.

Theta criterion predicts that all DPs must have a theta role. DPs without a theta role cause the derivation not to converge.

Case theory, another sub-component of GB, regulates the distribution of NPs in syntactic structures and assumes that all overt DPs in syntactic structures are subject to case filter and must be assigned case by a case assigner.

Case Filter: Every overt NP must be assigned abstract case.

Case filter is correlated with the *Visibility Condition*, which requires that a DP must have case in order to receive a theta role. Thus, NPs which are not assigned case by a case assigner will cause the derivation to crash at LF.

In GB, case is accounted for through assignment by a governor or in a spec-head configuration. Case assigners in this respect are V and P heads which assign accusative case to their complements via government and the finite I head which assigns nominative case to DPs in a Spec-head configuration.

Government (from Haegeman, 1994:148)

a.

A governs B iff A m-commands B and no barrier intervenes between A and B.

Maximal projections are barriers to government

Governors are heads.

Government

b.

A governs B iff (i) A is a governor

(ii) A m-commands B;

(iii) no barrier intervenes between A and B.

Governors are lexical nodes (V, N, P, A) and tensed I.

Control Theory is the module of GB which investigates the distribution and interpretation of non-overt NPs that have been called PRO. Although PRO is not overtly realized, it is syntactically active and thus it must be syntactically represented. The reason why this module is called control theory is due to the fact that the interpretation of PRO may be referentially dependent on another NP in the syntactic structure. This means that PRO is controlled by that NP.

One characteristic related to the composition of the features of PRO is that it is [+ anaphor, +pronominal]. It carries the features of both anaphoric expressions and pronominal expressions. As it bears these two conflicting features as stated in *the PRO Theorem* below, PRO must be ungoverned in order to be licensed in the structure. As shown in Haegeman (1994:252), "PRO is in complementary distribution with overt NPs. Where PRO is allowed, overt NPs are excluded; where overt NPs are allowed, PRO is excluded." This indicates that PRO never alternates with overt NPs.

The PRO Theorem: PRO must be ungoverned.

Binding theory is the module of GB which regulates the interpretation and referential properties of NPs which come in three types; anaphors, pronouns and referential expressions. According to binding theory; there are three principles related to the interpretation of these different NP-types.

Binding Theory (from Haegeman, 1994:216)

Principle A

An anaphor must be bound in its governing category.

Principle B

A pronoun must be free in its governing category.

Principle C

An R-expression must be free everywhere.

Binding

A binds B iff

(i) A c-commands B;

(ii) A and B are co-indexed.

C-command

A node A c-commands a node B iff

(i) A does not dominated B;

(ii) B does not dominate A;

(iii) The first branching node dominating A also dominates B.

Apart from these modules, in GB, there is another operation called Move-alpha, which gives certain constituents the chance to move anywhere anytime as long as it takes place to a position which c-commands the constituent's base position. Movement in GB is free, which means that it is not motivated for a special purpose. Also, it is subject to constraints like island effects, which will be discussed later in chapter 3.

1.2.2 Minimalist Program

In Minimalist Program, which has been developed in Chomsky (1995) and subsequent work, there are some areas which contrast with GB with respect to the modules regulating the grammar.

Contrary to GB, which assumed that there are four levels, MP assumes that there are two levels of representation and dispenses with deep structure and surface structure levels, which are at the core of GB. The Minimalist Program assumes that the syntactic structure of sentences must be as economical as possible. So, if they are not obligatorily needed, there is no point to claim for the existence of any interface levels, like deep structure and surface structure in this case. The only levels that are conceptually obligatory are LF and PF in that sentences are pairings of form (PF) and meaning (LF).

One of the arguments claiming that S-structure exists in GB is that this is the level where case is assigned. However, instead of assuming that case is assigned, in MP case assignment is replaced with case checking and case feature must be checked by LF. By this way, the need for S-structure evaporates. So, on empirical

grounds like case assignment vs case checking described above, the need for S-structure evaporates.

One of the arguments for the existence of Deep Structure is theta role assignment. However, MP assumes that theta roles are assigned under merge, so according to MP, there is no need for Deep Structure. Under the light of the assumptions of MP, it becomes obvious that there is actually no need for the levels of D-structure and S-structure.

In the minimalist program, constituents enter the derivation fully inflected from the lexicon via the operation merge. Instead of deep structure, theta roles are assigned under the operation merge. Then comes another operation which allows the constituents to move from their base-generated position to their derived positions in order to check a feature against an appropriate head. The application of movement operations is restricted by the economy principles of *Last Resort* and *Procrastinate*. According to the first economy principle *Last Resort*, an element cannot move unless it has to do so. Departing from GB, there must be some motivation for any movement operation to occur in MP; otherwise, movement is not licit. The motivation in the MP is to check features. This means that the attracter must have an uninterpretable feature that needs to be checked. Another economy principle *Procrastinate* assumes that features come in two ways, they may be strong, or they may be weak. According to Procrastinate, strong features are checked overtly, that is before Spell-out while weak features are checked covertly, that is, after Spell-out.

Case assignment in GB is replaced by case checking in MP. DPs enter the derivation fully inflected for case, number and person. Next step is to check their features against an appropriate head because all uninterpretable features must be deleted by LF in MP; otherwise the derivation crashes. If the head bears an

uninterpretable feature, it attracts an element bearing the same feature and the feature is checked only in a Spec-head configuration, which is a unified account for case checking with respect to early versions of government in GB where case is assigned either in a spec-head configuration or through government. Note that case assignment is later revisited and explained only through government as discussed in section 1.2.1 (Chomsky, 1986b). The functional projections responsible for case checking in MP are TP and vP. T head bears that uninterpretable nominative case feature and attracts the element carrying the nominative case, which is the subject, in order to check its feature. In MP, it is assumed that there are no limits to the number of Spec positions that a category can have. v head is thus assumed to have two Spec positions and the second Spec position is responsible for accusative case checking. The element bearing the same feature as the v head has to move to this Spec position and check the uninterpretable feature of the head.

As seen so far, licensing any element in a syntactic structure is accomplished by a feature checking mechanism in MP. This may be implemented either overtly, which requires that the element moves to the Spec position of the head in the overt component if the head bears strong features which need to be checked before Spell-out, or covertly which requires that the element moves to the Spec position of the head in the covert component if the head bears weak features which need to be checked by LF. Which element moves is determined by the Principle of *Shortest Move*. According to *Shortest Move*, of the two or more potential elements for movement, the one that is closest to the head moves to check the uninterpretable feature of the head. However, if these elements are at spec positions of the same XP projection, they are considered to be equidistant from the probing head whose Spec they have to move to, thus such movement does not violate shortest move.

Eliminating interface levels which are not conceptually necessary and having operations like *Shortest Move, Procrastinate* and *Last Resort*, the basis of which are economy considerations, MP is economical. Since being economical as much as possible is of great importance for MP, moving an element in the overt component is less economical than moving it in the covert component since in the latter only the features move and in the former both the features and the constituents move. Another economy mechanism which has been used to check weak features instead of covert movement is, similar to covert movement, the operation *Agree*, which has been put forth recently in Chomsky (2000, 2001). In *Agree*, the head agrees with the head bearing the same feature in situ. For the application of the operation *Agree*, the element does not move to check its features if it bears weak features even covertly, instead it stays in situ, which is less costly than any movement and is the one to be preferred since it is more economical.

1.3 Previous Approaches to Scrambling

After reviewing the basic facts of generative framework within the assumptions of which this thesis is written, let us now take a look at some previous approaches to scrambling. Some of these studies argue for the view that scrambling is to an A-position (e.g. Miyagawa, 2003) while some others argue it can only be to an A-bar position (e.g. Saito, 1989).

1.3.1 Ross (1967)

The term “scrambling” was first defined by Ross (1967) as “free word order” to explain different word order permutations observed in many languages in the world such as Japanese, Turkish, Dutch. That is, these languages allow constituents in a sentence to appear in various positions in the construction. While some languages like the ones mentioned above are scrambling languages, some others like English cannot be categorized in this group since they do not allow constituents to appear in a relatively free order in a structure.

1.3.2 Saito (1989)

The main point in Saito (1989) is that scrambling is movement to an A-bar position and is also a semantically vacuous movement which has no important consequences at LF. The reason for this is that the fronted NPs reconstruct at LF to their base-generated positions and are interpreted in these positions.

He first gives some examples yielding weak-crossover effects in Japanese. Since WCO effects are the result of an A-bar movement, then scrambling in Japanese must be movement to an A-bar position. He further argues that scrambling can be freely undone at LF via reconstruction, which is a characteristic of A-bar movement.

(1) Himself$_i$, John$_i$ loves.

(2) zibun$_i$-no hahaoya-o$_j$ John$_i$-ga t_j aisiteiru koto

self-gen mother-acc John-nom love fact

"John$_i$ loves his$_i$ mother."

(Saito, 1989:186)

These sentences above are grammatical because the topicalized element *himself* reconstructs at LF. Anaphoric expressions must be bound by their antecedents, which means that they must be c-commanded by them. In (1), "himself" must be bound by "John". However, in its S-structure position, it is not c-commanded by "John" and the sentence should be ungrammatical, which is contrary to the case. So, we conclude that the anaphoric expression reconstructs to its base-generated position at LF and is c-commanded by its antecedent "John". This is very similar to the case in Japanese in (2) the scrambled constituent can reconstruct at LF, too. The anaphoric expression *zibun-no* reconstructs at LF and gets bound by its antecedent John.

Consequently, Saito (1989) argues that scrambling is an S-structure A-bar movement and can be freely undone at LF, which leads to the conclusion that scrambling does not establish an important operator-variable relation. The main difference between English topicalization and wh-movement and scrambling in Japanese is a result of some independent difference between Japanese and English. Since the fronting of the scrambled NP has no semantic import, this movement should be considered as a semantically vacuous A-bar movement.

1.3.3 Webelhuth (1989)

Webelhuth (1989) argues for the existence of mixed positions. The main argument in Webelhuth (1989) is that German scrambling is not a unitary phenomenon, so it must be movement to a mixed position. His evidence comes from cases where scrambling behaves differently, that is, in one case it behaves as an A-bar movement and in others, it behaves as an A-movement. His arguments are exemplified below (the examples are as cited in Mahajan, 1990).

(3) Peter hat jeden Gast$_i$ [ohne t_i anzuschauen] seinem$_i$
Peter has every guest without to-look-at his
Nachbarn t_i vorgestellt
neighbor introduced
"Peter introduced every guest to his neighbor without looking at."

Webelhuth (1989) argues that the NP *jeden Gast* in (3) can simultaneously bind the pronoun *seinem* and license a parasitic gap in the adjuct clause. Binding a pronoun is a characteristic of A-movement and licensing a parasitic gap is a characteristic of A-bar movement. So, he concludes that the NP is in a mixed position.

The second piece of evidence he gives is exemplified in (4) below.

(4) Peter hat die Gaste [ohne e anzuschauen] einander
Peter has the guests without looking at each
other
t vorgestellt
introduced-to
"Peter introduced the guests to each other without looking at them."

In (4), parallel to (3), the NP *die Gaste* can bind the reciprocal and at the same time license a parasitic gap, which are characteristics of different movement operations. What Webelhuth concludes from the examples above is that scrambling is movement to a mixed position.

1.3.4 Mahajan (1990)

Mahajan (1990), unlike Saito (1989), argues that scrambling does not just display A-bar properties; it also displays A-movement characteristics in the light of WCO effects, locality constraints on movement, reconstruction effects and binding properties. He also sees scrambling as three distinct operations, namely argument shift (passive), adjunction to XP (topicalization, wh- movement or focusing) and X shift. For the terms A-positions and A-bar positions, he uses the terms L-related (specifier and complement positions of a lexical item and functional heads projected from it) and non L-related positions (all other positions including Spec CP and adjunction positions) respectively.

Following Chomsky (1981), Mahajan (1990) states that an A-position is a position to which a theta role can be assigned. NPs move out of VP for case

purposes. Then all VP-external positions, since they are non-theta positions, seem to be A-bar positions, which is contrary to most of the existing views (cf Sportiche, 1988; Larson, 1988; Kitagawa, 1986 among others) about movement theory. However, movement to an A-bar position results in a chain whose head is not in a case position while its tail is. Movement to an A-position is forced for case purposes and therefore the chain's head is case marked while its tail is not.

The features of A movement vs. A-bar movement can be listed as the following:

A-movement:

- Creates new binders,
- Overrides weak crossover effects,
- Is not reconstructable,
- Does not license parasitic gaps

A-bar movement:

- Does not create new binders,
- Does not override weak crossover effects
- Is reconstructable,
- Licenses parasitic gaps.

The first test Mahajan (1990) uses is "weak crossover effects", which is shown below by "the leftness condition".

The Leftness Condition: A variable cannot be an antecedent for a pronoun to its left.

(5) * Who$_i$ did his$_i$ mother see t_i?

(6) * His$_i$ mother saw someone$_i$?

These are ungrammatical due to WCO effects. In (5), the question word "who", which is also a variable, cannot be an antecedent for the pronoun "his" as "someone" cannot be an antecedent for the pronoun "his" in (6). The explanation for this comes from "weak crossover filter".

Weak Crossover Filter: To be construed as a bound variable, a pronoun must be c-commanded by a binder and its variable (if there is one) at S-structure.

This explains (5) and (6) above. In (5), the wh- phrase "who" c-commands the pronoun but its variable does not. In (6), the quantifier phrase "someone" does not c-command the pronoun at S-structure. These sentences contrast with (7) and (8) below. In (7), both the wh- phrase and its variable c-command the pronoun, in (8), the quantifier phrase "someone" c-commands the pronoun. As a result, both (7) and (8) are grammatical.

(7) Who$_i$ t_i saw his$_i$ mother?

(8) Someone$_i$ saw his$_i$ mother?

Mahajan (1990) provides evidence that in English wh-phrases and quantifiers can create new binders so that they do not show WCO effects. Therefore, these positions must be A-positions.

(9) Who$_i$ t_i seems to his$_i$ mother t_i to have come?

(10) Someone$_i$ seems to his$_i$ mother t_i to have come.

Mahajan (1990) argues that sentences below show WCO effects.

(11) *uskii$_i$ bahin kis-ko$_i$ pyaar kartii thii?
his sister (SUB) who (DO) love do-imp-f be-pst-f
"* Who$_i$ does her$_i$ sister love?"

(12) * uskii$_i$ bahin sab-ko$_i$ pyaar kartii thii
their sister (SUB) everyone (DO) love do-imp-f be-pst-f
"Their$_i$ sister loved everyone$_i$."

(Mahajan, 1990:25)

However, fronting the NPs to pre-subject positions rescues the sentences as is clearly seen in (13) and (14) respectively.

(13) [kis-ko$_i$ uskii$_i$ bahin [t_{sub} t_{DO} pyaar kartii] thii]
who (DO) his sister (SUB) love do-imp-f be-pst-f
"Who$_i$ does her$_i$ sister love?"

(14) [sab-ko$_i$ uskii$_i$ bahin [t_{sub} t_{DO} pyaar kartii] thii]

everyone(DO) his sister (SUB) love do-imp-f be-pst-f

"Their$_i$ sister loved everyone$_i$."

(Mahajan, 1990:25)

As the sentences above illustrate, moved NPs do not show WCO effects, so they must be in a position similar to the NPs in (7) and (8), that is, they must be in A-positions.

This is the same case with DOs moved to a position higher than the IO containing a pronoun, either sentence initial position as in (16) or the position between the subject and the IO as in (17). They do not show WCO effects, therefore, they must be in an A-position.

(15) *[raajaa-ne unke$_i$ pitaa-ko sab daasiyaaN$_i$ [t_{sub} t_{IO} t_{DO}

king (SUB) their father (IO) all maids (DO)

loTaa diiN]]

return give-pst-f-pl

"*The king returned all the maids$_i$ to their$_i$ fathers."

(16) [sab daasiyaaN$_i$ raajaa-ne unke$_i$ pitaa-ko [t_{sub} t_{IO} t_{DO}

all maids (DO) king (SUB) their father (IO)

LOTAA diiN]]

return give-pst-f-pl

"The king returned all the maids$_i$ to their$_i$ fathers."

(17) [raajaa-ne sab daasiyaaN$_i$ unke$_i$ pitaa-ko [t_{sub} t_{IO} t_{DO}

king (SUB) all maids (DO) their father (IO)

LOTAA diiN]]

return give-pst-f-pl

"The king returned all the maids$_i$ to their$_i$ fathers."

(Mahajan, 1990:27-28)

In the order of IO-DO-SUB-V, if the DO is scrambled to the front of the IO containing a pronoun or quantifier, WCO effects do not show up again, which is illustrated in (18) and (19) below.

(18) *[unke$_i$ pitaa-ko sab daasiyaaN$_i$ raajaa-ne [t_{sub} t_{IO} t_{DO}

their father (IO) all maids (DO) king (SUB)

LOTAA diiN]]

return give-pst-f-pl

(19) [sab daasiyaaN$_i$ unke$_i$ pitaa-ko raajaa-ne [t_{sub} t_{IO} t_{DO}

all maids (DO) their father (IO) king (SUB)

LOTAA diiN]]

return give-pst-f-pl

(Mahajan, 1990:30)

Mahajan (1990) argues that preposed NPs should create new binders if they move to an A-position, which is confirmed by the Hindi data in (20) and (21) below.

(20) *??? [apne$_i$ baccoN-ne mohan-ko$_i$ ghar se [t_{sub} t_{do}

Self's children (SUB) mohan (DO) house from

nikaal diyaa]]

throw give-perf

" *Self's$_i$ children threw Mohan$_i$ out of the house."

(21) [mohan-ko$_i$ apne$_i$ bacon-ne ghar se [t_{sub} t_{do} nikaal diyaa]]

Mohan (DO) self-children(SUB) house from throw give-perf

"Self's children threw Mohan out of the house."

(Mahajan, 1990:32-33)

In Hindi, reconstruction is possible only to a position higher than the IO as seen below, indicating that movement is to an A-position.

(22) apnii$_{i/*j}$ kitaab raam-ne$_i$ mohan-ko$_j$ loTaaii

Self's book-f (DO) Ram (SUB) Mohan (IO) return-perf-f

"Ram$_i$ returned self's$_{i/*j}$ book to Mohan$_j$."

(Mahajan, 1990:35)

This is also confirmed by Condition C effects as seen in (23).

(23) mE-ne Raam$_i$ ki kitaab$_j$ use$_i$ t_j dii

I (SUB) Ram gen. book-f him (IO) give-perf-f

"Lit. I gave Ram's book to him."

(Mahajan, 1990:36)

About long distance scrambling, in Hindi, Mahajan (1990) argues that long distance scrambling is an instance of A-bar movement or movement to a non L-position.

One piece of evidence for this claim comes from WCO effects in (24) below.

(24) *kis-ko$_i$ uskii$_i$ bahin-ne socaa [$_{CP}$ ki raam-ne t
Who (EDO) his sister (SUB) thought that Ram (SUB)
dekhaa thaa]
seen be-past

(Mahajan, 1990:39)

Since this sentence is ungrammatical, the movement here must be an A-bar movement since it cannot override weak crossover effects.

The second piece of evidence comes from reflexive binding. Since this kind of movement is to an A-bar position, then it should not affect binding of the reflexives, which is actually the case. The fronted NP cannot serve as an antecedent of the reflexive. However, if the subject is contained in the subject of the embedded clause, the fronted NP can serve as an antecedent for that reflexive, which proves that clause internal NP fronting can be an A-movement, whereas long distance NP fronting is an A-bar movement.

(25) shows a short distance adjunction. Since the grammaticality of (25) must be due to reconstruction, this movement must be to an A-bar position.

(25) Apne aap-ko raam pasand kartaa hE

Himself (DO) Ram (SUB) likes

"Ram likes himself."

(Mahajan, 1990:46)

Apart from these, Mahajan (1990) argues against the view that there are mixed positions as claimed by Webelhuth (1989). Webelhuth (1989) claims that there are cases where scrambling behaves like an A-movement and cases where it behaves like an A-bar movement, so he proposes that there are mixed positions. However, Mahajan (1990) argues against Webelhuth's proposal and objects to the claim that there are mixed positions. Instead, he argues that there are two movements, the first one of which is an A-movement and the second one of which is an A-bar movement by discussing the German data used by Webelhuth (1989) in his analysis. He concludes that (i) a fronted NP cannot simultaneously bind a reflexive or a pronoun (A-position) and reconstruct (A-bar position) and (ii) a fronted NP cannot simultaneously bind a reflexive or a pronoun (A-position) and license a parasitic gap (A-bar position).

What Mahajan (1990) concludes is that there are two distinct operations for Hindi and there are no mixed positions. Cross linguistically, there may be languages displaying either, both or neither of these operations. There may be restrictions on each kind of operation. For A-movement, the restrictions are as follows:

i. Verb movement is required for argument shift

ii. Extended chain formation is required for argument shift

iii. Case theory

Constraints on Adjunction are as follows:

i. No adjunction to arguments

ii. Directionality of head government

iii. General principle like subjacency and ECP

(Mahajan, 1990:65-66)

1.3.5 Miyagawa (2003)

Miyagawa (2003) argues against the view that scrambling is an optional movement operation. More specifically, he claims that scrambling is a feature-driven obligatory movement operation.

According to Miyagawa (2003), the driving force for scrambling is the Extended Projection Principle, namely the EPP. T head has a strong EPP feature and it has to be satisfied. In this sense, the movement operation is not optional because it is driven by an uninterpretable feature. However, what is optional is what to move to satisfy this strong feature of the T head. There are two potential candidates that are capable of doing the job, either the subject or the object. He bases his arguments on the interaction of the quantifier *zen'in* "all" with negation in Japanese.

When it is used as the object in a sentence, only partial interpretation is possible as exemplified in (26) below.

(26) (Kinoo) Taroo-ga zen'in-o home-nakat-ta (yo/to omou)

(Yesterday) Taro- NOM all-ACC praise-Neg- Past (Expl/Comp think)

"(I think that) Taro didn't praise all (yesterday) (!)"

Not >>all, (*) all>> not

(Miyagawa, 2003:182)

However, what Miyagawa observes is that when the quantifier *zen'in* is used in the subject position, it gets only the total negation interpretation as in (27).

(27) Zenin-ga sono tesuto-o uke- nakat-ta (yo/to omou)

All- NOM that test- ACC take-NEG-PAST

"All did not take that test."

*not >>all, all>> not

(Miyagawa, 2003:182)

Since negation is between the vP and the T, the subject in (27) must move to a position higher than NEG to be able to c-command it and take the total negation interpretation. This requires that it move to [Spec, TP] position. The interesting thing Miyagawa observes here is that it is possible to have both partial and total negation interpretation when the object is scrambled to the presubject position.

(28) sono tesuto- o_i zenin-ga t_i uke- nakat-ta (yo/to omou)

that test- ACC_i all- NOM take-NEG-PAST

"That test, all didn't take."

Not >>all, (all>> not)

(Miyagawa, 2003:184)

The logical conclusion to reach then is that the subject must stay in-situ to get the partial negation interpretation in (28). This can be achieved by assuming that the object moves to [Spec, TP] position, which leaves Miyagawa with the assumption that something must fill the [Spec, TP] position, either the subject or the object. Thus, he reaches (29) below.

(29) The EPP and Scrambling

Scrambling is triggered by the EPP feature on T.

(Miyagawa, 2003:184)

The question that immediately arises here is related to the locality condition. We would expect the movement of the object to [Spec, TP] position to violate locality and cause ungrammaticality. However, Miyagawa assumes that in Japanese there is v-to-T raising. So, this head movement makes the positions the subject and the object equidistant from the [Spec, TP] position and choosing the object over the subject does not violate locality, making the structure still grammatical.

Following Mahajan's (1990) analysis that clause-internal scrambling involves both A and A-bar movement, he assumes the following for the total negation interpretation in (28). In order to c-command negation, the subject moves

to the [Spec, TP] position. After this movement, he assumes that the object undergoes A-bar movement to a position higher than the [Spec, TP] position to get the surface order.

He also tests the interpretation effects by placing a high adverb into (28), illustrated in (30) below.

(30) sono tesuto- o_i zenin-ga saiwaini t_i uke- nakat-ta (yo/to omou)
that test-ACC$_i$ all-NOM fortunately take-NEG-PAST
"That test, all did not take fortunately."
*Not >>all, (all>> not)

(Miyagawa, 2003:186)

"Saiwaini" is a high adverb, which occurs very high in the structure. If the subject precedes it, it cannot be in its vP-internal position. In (30), this assumption is confirmed, as only the total negation interpretation is possible, indicating that the subject is not in its vP internal position and it has actually moved to [Spec, TP]. However, with a low adverb, ambiguity still obtains as exemplified in (31).

(31) sono tesuto- o_i zenin-ga isoide t_i uke- nakat-ta (yo/to omou)
that test-ACC$_i$ all-NOM quickly take-NEG-PAST
"That test, all didn't take quickly."
Not >>all, (all>> not)

(Miyagawa, 2003:186)

So, unlike Saito (1989), what Miyagawa (2003) concludes is that scrambling is a feature-driven obligatory movement. The feature that makes scrambling obligatory is the EPP. It must be satisfied either by the subject or by the object. Also, not to violate locality, he assumes that there is v-to-T raising in Japanese.

1.3.6 Karimi (2003)

Since focus will be claimed to play an important role in scrambling operations in this thesis, I would also like to take a look at Karimi (2003) about focus movement. Karimi (2003) tries to answer two questions about focus movement which is closely related to the issue of scrambling in many languages as seen in Persian. The first one is whether focus is subject to any principles governing the operation Move such as Minimal Link Condition (MLC). The second one is how optionality observed with respect to its movement in some languages can be accounted for. She examines the nature of features triggering movement and proposes an alternative account. She first differentiates two types of focus, the first of which is within the VP and presenting new information, the second of which requires heavy stress and triggers movement out of VP expressing contrastive interpretation.

Karimi (2003) argues that wh-phrases can carry contrastive focus and when there are two wh-phrases in the structure, they are subject to adjacency condition, which illustrates that the movement of a focused phrase is triggered by the uninterpretable focus feature as illustrated by the Persian data below.

(32) a. KI_i bâ KI_j pro fekr-mi-kon-i [CP t_i t_j be-raghs-e]

WHO with WHO thought-PROG-do-2SG SUBJ-dance-3SG

Lit: It is WHO with WHO you think will dance?'

b. ??KI_i emruz bâ KIj pro fekr-mi-kon-i [CP t_i t_j be-raghs-e]

today

(Karimi, 1999:4)

Karimi (2003) suggests that the ungrammaticality (32b) is due to the fact that these two focused phrases must occupy the specifier positions of the same head. Thus they cannot be separated by the adverb. She suggests the following derivation in (33) for (32).

(33) [FocP XP_i [XP_k [Foc' Foc [YP .... t_i .... t_k...]]]]

(Karimi, 1999:4)

She also suggests that focus movement must obey MLC as illustrated in (34).

(34) a. [faghat be Kimea]$_i$ man t_i se tâ KETAB dâd-am

only to Kimea I three-PART book gave-1SG

"It was only to Kimea that I gave three BOOKs." (I gave other people other things.)

b. *se tâ KETAB man faghat be KIMEA ti dâd-am.

"Intended meaning: It was three BOOKS that I gave only to KIMEA."

(Karimi, 2003:5)

In (34), both the *only*-phrase and the stressed object are focused. In (34a), the first element that carries the focus feature moves and the sentence is grammatical. However, (34b) is ungrammatical since the direct object crosses the *only*-phrase, which indicates that focus movement is subject to MLC.

The next problem Karimi (2003) takes into account in her analysis is related to the empirical and conceptual problems. The empirical problem is that in Chomsky's model, uninterpretable features are eliminated after checking, thus the attractor checks its feature and the uninterpretable feature becomes inactive. However, this is a problem for multiple movements as in (32). Because after the first element moves, the uninterpretable feature of the target is eliminated and there is no need to move the other elements carrying the same feature, contrary to the fact. The conceptual problem is related to how the existence of uninterpretable elements is justified in a theory that looks for explanatory adequacy.

In order to explain the first problem, Karimi (2003) bases her assumptions on Chomsky's (2001) Interface Condition, which says that all features must be interpretable and she proposes the following.

(35) a. F and F' are both interpretable.

b. F motivates the movement.

c. Convergence is possible only if F/F' are visible at LF.

(36) Visibility Principle

F/F' are visible if locally checked.

However, note that (35) and (36) above are not adequate to explain the ungrammaticality of (37) below since the DP Mary is not prevented to move to [Spec, TP] to check its case feature.

(37) *Mary$_i$ seems [that t_i is the winner].

Karimi (2003) argues that case feature is relevant to PF and it must be interpreted at that level, thus suggests (38) and (39) altering (35).

(38) PF features become inactive after checking.

(39) Convergence is possible only if F/F' are visible at LF and PF.

In this way, the ungrammaticality of (37) is straightforward. The case feature of Mary is checked in the embedded clause and becomes inactive, thus it cannot check the case feature of the matrix T.

After suggesting (38) and (39) above, Karimi (2003) tries to explain the optionality of focus movement. Following (38) and (39), she suggests that focus has three features: F, F' and F^s, where F^s represents stress, which is a PF feature and F' represents the semantic property of contrastive focus. She further assumes that stress is the primary feature required for contrastive focus.

Thus selection of F becomes optional. If F is not selected from the lexicon, F' (the LF feature) and Fs (the PF feature) are checked against each other, and there is no movement. If F is selected, the movement becomes obligatory. Thus feature driven movement remains obligatory. Optionality is then reduced to the selection of F from the lexicon.

(Karimi, 2003:14-15)

She then gives the following possible derivations for the optionality of focus movement.

(40) [DP [D' [D F' F^s]]]

In (40), F is not selected and DPs undergo agree relation in-situ.

(41) [FocP DP F' F^s [Foc' F [..... t]]]

In (41), F is selected and thus it triggers movement to FocP. Consequently, what Karimi proposes is the following with her own words.

(a) All features are interpretable, (b) the principle of Full Interpretation is not only relevant at LF, but also at PF, and (c) PF interpretable features, unlike LF features, may be checked only once.

(Karimi, 2003:16)

1.3.7 Miyagawa (2004)

With respect to scrambling, Miyagawa (2004), which investigates wh-movement, focus movement, agreement movement and scrambling, mainly argues that scrambling or movement to [Spec, TP] is the result of focus percolation to T head.

About these four movements in languages, he suggests that all are reduced to two features interacting with the EPP and argues for the existence of Uniformity Principle.

(42) *Uniformity Principle*

In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances.

(Miyagawa, 2004:2)

Thus, Miyagawa (2004) argues in the light of the uniformity principle above that scrambling is the result of the fact that all languages carry certain features in a certain way. With the interaction of these features with each other and other functional projections, scrambling takes place.

He uses the following data from Kornfilt (2004).

(43) a. subject as the target of relativization

[[e_i geçen yaz ada-da ben-i gör-en] kis¸i-ler$_i$]

[[last summer island-Loc I-Acc see-(y)An person-Pl

'the people who saw me on the island last summer' (No φ-feature morphology; special nominalization form on predicate)

b. a non-subject as the target of relativization

[[pro geçen yaz ada-da e_i gör-düğ˘ -üm] kis¸i-ler$_i$]

[[last summer island-Loc see-DIK-1.sg person-Pl

'the people who(m) I saw on the island last summer' (φ-feature morphology; general indicative nominalization form on predicate).

By looking at the data above, he suggests that in (43a), there is no agreement between the embedded verb and the subject. What Kornfilt (2004) suggests for this fact is that C in the relative clause agrees with the subject (*e*), thus there is no emergence of agreement on the embedded verb. However, there is no agreement with C and there is nothing to prevent the embedded verb to agree with the subject. What this suggests for Turkish is that the agreement is actually on C and it gets copied to T.

Apart from Turkish, which shows agreement on C, Miyagawa (2004) also takes a look at Japanese and Kinande, which he calls focus prominent languages and argues that focus feature percolates down to T and justifies his assumption on the interaction of focus, agreement and the EPP. Although the details of the languages in question need not be discussed here due to space restrictions, what is important for our discussion is that scrambling is the result of focus percolation to *T*.

Thus, he concludes that all languages share common features and even if they are not so apparent, languages display these features in some fashion. The seemingly huge differences between languages are not signs of really deep differences; rather they indicate that features interact with each other in different ways and the interaction of these features with each other gives way to scrambling.

1.3.8 Saito (2006)

Saito (2006) argues against Miyagawa's (2001, 2003, 2005) analysis that scrambling is motivated by the EPP. What he suggests in the end is that scrambling is not EPP driven and it is not to [Spec, TP].

Saito (2006) uses Miyagawa's core data, where he argues for a non-uniform analysis for scrambling, which is depicted in (44) below.

(44) a. Zen'in-ga sono tesuto-o uke -na -katta (yo /to omo -u)
all -NOM that test -ACC take-Neg-Past Part that think-Pres
'All did not take that exam'
(All > Not, *Not > All)

b. Sono tesuto-oi zen'in-ga *t*i uke -na -katta (yo /to omo -u)
that test -ACC all -NOM take-Neg-Past Part that think-Pres
'That exam, all did not take'
(All > Not, Not > All)

Miyagawa (2003) explains (44) as follows. In (44a) above, the subject takes only wide scope with respect to negation, which indicates that the subject moves to [Spec, TP]. In (44b) however, there are two readings possible. In one reading, the subject takes wide scope, in the other reading, the subject takes narrow scope with respect to negation. Miyagawa argues that in the reading where the subject takes wide scope, the subject moves to [Spec, TP] satisfying the EPP and the object undergoes A-bar movement to CP domain. In the reading where the subject takes

narrow scope, the object moves to [Spec, TP] satisfying the EPP while the subject stays in-situ.

Saito (2006) points to an interesting fact about Miyagawa's (2003) core data and argues that the scrambled object does not occupy the [Spec, TP] position. He puts forth that scope interactions of the subject and negation is dependent on other factors such as the verb form and sentence ending and provides the following examples in (45) and (46).

(45) Zen'in-ga sono tesuto-o uke -na -katta-ra, raigetu mata
all -NOM that test -ACC take-Neg-Past -if next month again
tesuto-o su -ru
test -ACC do-Pres
'If all do not take the exam, (we will) have another exam next month'
(All > Not, Not > All)

(46) Zen'in-ga siken -o erab -ana -i to omo -u
all -NOM exam-ACC choose-Neg-Pres that think-Pres
'I think that all will not choose an exam (over a term paper)'
(All > Not, Not > All)

Both in (45) and (46), the readings that the subject takes wide and narrow scope are possible. This is a problem for Miyagawa's analysis because if the subject is in [Spec, TP], the narrow scope reading should be expected to be impossible.

Thus, Saito tests whether the object really moves to [Spec, TP] or not by relying on the binding relations illustrated in (47) from Saito (2006:3-4).

(47) a. Zen'in-ga zibun-zisin-o seme -na -katta (to omo -u)

all -NOM self -self -ACC blame-Neg-Past that think-Pres

'Everyone did not blame herself/himself'

(All > Not, *Not > All)

b. Zibun-zisin-oi zen'in-ga *t*i seme -na -katta (to omo -u)

self -self -ACC all -NOM blame-Neg-Past that think-Pres

'Herself/himself, everyone did not blame'

(All > Not, Not > All)

According to Miyagawa's analysis, in (47a), the subject moves to [Spec, TP] and only the wide scope reading is possible. In (47b), both readings are possible. In wide scope reading, the subject moves to [Spec, TP] and the object undergoes A-bar movement. In narrow scope reading, the object moves to [Spec, TP] and the subject stays in-situ, thus takes narrow scope. However, this is a problem. Saito notes that the object in (47) is an anaphor. If it is assumed that the object moves to [Spec, TP] in narrow scope reading of the subject, then it must be expected that it would cause condition C violation and the derivation must be ruled out, contrary to the fact. The reason for this is that [Spec, TP] position is an A-position, which means that it creates new binders. So, if the object moves to an A-position, it becomes a binder and creates principle C effect.

To resolve the problem above, Saito (2006) takes a look at the definition of the subject by giving evidence from causative constructions and proposes an alternative account. From the evidence of causative constructions, he argues that the

subject does not have to occupy the [Spec, TP] position, rather [Spec, vP] is a possible candidate for antecedents for the subject-oriented reflexive *zibun*.

Thus, he proposes that there is a functional projection the head of which is Th (standing for Theme) above TP and the object in (47b) moves to the Spec position of this functional projection. He further assumes that negation takes [Spec, TP] into its scope. Thus, he explains the core data in (44) as follows.

> (44b) involves clause-internal scrambling. If scrambling is not undone, the scrambled phrase is attracted to ThP Spec and the subject *zen'in* 'all' remains in TP Spec. Hence, the narrow scope reading of the subject is possible. On the other hand, if the scrambled phrase moves back to its initial position, the subject *zen'in* moves to ThP Spec and takes scope over negation.
>
> (Saito, 2006:19)

What he concludes from the discussion above is that A-scrambling is not EPP driven and it is not into [Spec, TP]. Instead, he proposes that there is another functional projection above TP and it plays the role that TP plays in Miyagawa's (2003) analysis.

1.4 Scrambling in Turkish

1.4.1 Data

Turkish is also a scrambling language in which word order is relatively free. The unmarked word order in Turkish is SOV. However, after the application of certain movement operations, the order of constituents may change and other word order permutations also appear as possible under certain discourse conditions. Turkish

displays short distance leftward, rightward and long distance scrambling as illustrated below.

(48) a. Ali kitab-ı oku-du
Ali book-ACC read-PAST
"Ali read the book."

b. Kitab-ı$_i$ Ali t_i okudu.

The canonical word order, which is SOV for Turkish (Erguvanlı, 1984), is illustrated in (48a). In (48b), the object is scrambled to the preverbal area, leaving a trace in its base generated position.

(49) a. Ali t_i okudu kitabı$_i$.
b. Kitabı Okudu Ali$_i$.
c. t_i t_j okudu Ali$_i$ kitabı$_j$.
d. t_i t_j okudu kitabı$_j$ Ali$_i$.

(49) presents examples of postverbal scrambling. In (49a), the subject stays in-situ and the object moves to postverbal position. (49b) is just the opposite of (49a) in that the subject moves to postverbal position while the object stays in its base-generated position. In (49c) and (49d), however, both the subject and the object move to postverbal position.

Turkish further exhibits scrambling in double-object constructions. Leaving the discussion of whether the base-generated position of DO is higher than IO or not

to chapter 2 and assuming for the time being that the canonical word order in double-object constructions in Turkish is "S-DO-IO-V" (Underhill, 1972; Erkü, 1983; Erguvanlı, 1984), I give the following examples in (50).

(50) a. Ahmet kitab-ı Ali-ye ver-di. (S-DO-IO-V)
Ahmet book-ACC Ali-DAT give-Past
"Ahmet gave the book to Ali."

b. Ahmet Ali-ye$_i$ kitab-ı t_i ver-di. (S- IO- DO-V)

c. Kitab-ı$_i$ Ahmet t_i Ali-ye ver-di. (DO-S-IO-V)

d. Ali-ye$_i$ Ahmet kitab-ı t_i ver-di. (IO-S-DO-V)

e. Kitab-ı$_j$ Ali-ye$_i$ Ahmet t_j t_i ver-di. (DO-IO-S-V)

f. Ali-ye$_i$ kitab-ı$_j$ Ahmet t_j t_i ver-di. (IO-DO-S-V)

In (50b), the IO moves to a position between the S and the DO while in (50d) it moves to sentence initial position. In (50c), the DO moves to sentence-initial position. In (50e) and (50f), both the IO and the DO are scrambled to sentence-initial position in different orders.

Postverbal scrambling is also possible in double-object constructions as illustrated in (51) below. One or more than one constituent can move to postverbal position.

(51) a. Ahmet t_i Ali-ye ver-di. kitab-ı$_i$. (S-IO-V-DO)

b. Ahmet kitab-ı t_i ver-di. Ali-ye$_i$. (S-DO-V-IO)

c. t_i kitab-ı Ali-ye ver-di Ahmet. (IO-DO-V-S)

In (51a), (51b) and (51c) above, only one of the constituents moves to the postverbal area. However, aforementioned, more than one constituent can also move to postverbal area, as illustrated in (52) below.

(52) a. Ahmet t_i t_j ver-di Ali-ye$_j$ kitab-ı$_i$. (S-V-IO-DO)

b. t_j kitab-ı t_i ver-di Ahmet$_j$ Ali-ye$_i$. (DO-V-S-IO)

c. t_j t_i Ali-ye ver-di Ahmet$_j$ kitab-ı$_i$. (IO-V-S-DO)

d. t_j t_i t_k ver-di Ahmet$_j$ Ali-ye$_k$ kitab-ı$_i$ (V-S-IO-DO)

In (52a), (52b) and (52c), two constituents, in (52d) all three constituents move to the postverbal area. Although one of the possible word orders is presented above, it is possible for the constituents to move postverbally in any order. For instance, IO>DO order in the postverbal area is presented; however, DO>IO order is also possible.

Apart from clause-internal scrambling discussed above, Turkish also displays long distance scrambling, both preverbally and postverbally. This is illustrated in (53) below.

(53) a. Ahmet Ali'nin kitab-ı oku-duğ-u-nu bil-iyor

Ahmet Ali-GEN book-ACC read-Comp-Agr-ACC know-Prst

"Ahmet knows that Ali read the book."

b. Kitab-ı$_i$ Ahmet Ali'nin t_i oku-duğ-u-nu bil-iyor

c. Ahmet Ali'nin t_i oku-duğ-u-nu bil-iyor kitab-ı$_i$

In (53b), the object of the embedded clause undergoes long-distance scrambling to preverbal area while it undergoes long-distance scrambling to the postverbal area in (53c). The landing positions of these moved elements will be discussed later.

1.4.2 Previous Approaches to Scrambling in Turkish

1.4.2.1 Kural (1993)

Kural (1993), in parallel to Saito (1989), proposes that all instances of NP fronting in Turkish are examples of A-bar movement. In his argument, the status of focus is the most crucial factor to diagnose the nature of NP fronting as an instance of A-bar movement, but not as A-movement.

He argues that the initial results obtained by using tests related to the distinction between A-movement vs. A-bar movement seem to predict that NP fronting in Turkish must be movement to an A-position at first look. For example, in (54b) below, the anaphoric expression does not reconstruct to the position of the trace, so it seems to be a movement to an A-position.

(54) a. [Adam-lar birbirleri-ni gör-müş.]
men-pl each other-acc see-past-agr
"The men saw each other."

b. * Birbirleri-ni$_i$ [adam-lar t_i gör-müş.]

each other-acc men-pl see-past-agr

"The men saw each other."

(Kural, 1993:261)

Kural (1993), however, claims that the data introduced in (54) can be treated as an instance of A-bar movement if focus is taken into consideration. He assumes that the neutral focus position is the immediately preverbal position in Turkish. Kural (1993) mainly argues that when there is a difference between LF and S-structure representations in terms of the constituents bearing focus in Turkish, sentences become ungrammatical, however, if there is one-to-one correspondence between the two representations, sentences are acceptable.

He claims that the unacceptability of the sentence in (54) is not due to A-movement but due to a mismatch between the LF and S-structure representations of focus. As seen in (55a), at S-structure, because the reciprocal anaphora undergoes A-bar movement, the focus falls onto the constituent *adamlar*, which is in the preverbal position, however, at the level of LF, the focus is on the reciprocal, which reconstructs back into its base-position.

(55) a. * Birbirleri-ni$_i$ ADAM-LAR t_i gör-müş. (S-structure)

each other-acc men-pl see-past-agr

"The men saw each other."

b. * Adam-lar BİRBİRLERİ-Nİ gör-müş. (after reconstruction-LF)
men-pl each other-acc see-past-agr
"The men saw each other."

(Kural, 1993:267)

If a different element bearing focus is introduced preverbally to the sentence (54) as shown in (56) below then the ungrammaticality we observe in (55) above due to an LF and S-structure focus representation mismatch disappears. When the antecedent of the anaphor is not focused, then reconstruction of the anaphor becomes available. That is, in (56), since the focus is not on the antecedent, *birbirlerini* can reconstruct, showing that it has actually moved to an A-bar position. As seen in (57), because the focus is on the adverb both at the S-structure and LF representations, the reconstruction of the anaphora does not lead to ungrammaticality, as it does not change the LF-representation of focus:

(56) Birbirlerini$_i$ adamlar$_i$ t_i DÜN gör-müş.
each other-acc men-pl YESTERDAY see-past-agr
"The men saw each other yesterday."

(57) a. Birbirlerini adamlar t_i DÜN görmüş. (S-structure)
b. Adamlar birbirlerini DÜN görmüş. (after reconstruction-LF)

(Kural, 1993:267)

In conclusion, Kural (1993) argues for the claim that object preposing in Turkish is not movement to an A-position although it seems so at first sight with the initial

results obtained, rather it is movement to an A-bar position. The reason why it seems as if it is a movement to an A-position is due to the interaction of focus with reconstruction and binding. Under this approach, reconstruction becomes possible and creating new binders becomes impossible, which are among the defining characteristics of A-bar movement.

1.4.2.2 Aygen (2000)

Aygen (2000), focusing on long-distance scrambling in Turkish, discusses the asymmetries between the extraction of the object and the extraction of the subject from finite and non-finite embedded clauses in Turkish. In (58), she illustrates that out of Non-Finite (NF) clauses, we observe no subject-object asymmetry in terms of extraction as both subjects and objects can be extracted out of the embedded clause:

(58) a) Ercan'ın$_i$ Hasan [t_i kek-i acele ye-diğ-i]ni
-gen cake-acc in a hurry eat-nom-agr-acc
söyle-di.
tell-past *subject*
"Hasan told that Ercan ate the cake in a hurry."

b) Kek-i$_i$ Hasan [Ercan'ın t_i acele ye-diğ-i]ni
cake-acc -gen in a hurry eat-nom-agr-acc
söyle-di.
tell-past *object*

(Aygen, 2000:65)

However, when the embedded clause is a finite (F) one, we observe that objects can be extracted while subjects cannot, which is illustrated in (59).

(59) a) * Ercan $_i$ Hasan [t $_i$ kek-i ye-di] san-ıyor. * *subject*
cake-acc eat-past think-prog
"Ercan thinks Hasan ate the cake."

b) Kek-i $_i$ Hasan [Ercan t $_i$ ye-di] san-ıyor. *object*
cake-acc eat-past think-prog
"Hasan thinks Ercan ate the cake."

(Aygen, 2000:66)

In Exceptional Case Marking (ECM) constructions, the situation seems to contradict with the facts observed above. The reason for this is that in ECM constructions, the embedded clause is also a finite one, so we expect these constructions not to allow extraction of the subject but to allow the extraction of the object. However, this is just the reverse of what we observe in (60) below, where the embedded clause is a finite one and the whole clause is an ECM construction.

(60) a) Ben-i_i Ahmet [t_i kek-i ye-di-(m)] san-ıyor. *subject*
I-acc cake-acc eat-past-(1sg) think-prog
"Ahmet thinks I ate the cake."

b) * Kek-i_i Ahmet [ben-i t_i yedi-(m)] san-ıyor. * *object*

cake-acc I-acc eat-past-(1sg) think-prog

"Ahmet thinks I ate the cake."

(Aygen, 2000:67)

Aygen (2000) summarizes what has been observed about the extraction of subjects and objects as in (61) below.

(61) a) NF clauses: subject object

b) F clauses: * subject object

c) ECM : subject * object

(Aygen, 2000:68)

After analyzing the extractability of subjects and objects from finite (F) and non-finite (NF) clauses, Aygen (2000) objects to Kural's (1993) claim that V-to-T-to-C raising is necessary in Turkish in order to license subject NPIs by negation on the verb and the availability of post-verbal scrambling in the form of a CP-adjunction. That is, Kural (1993) argues that in order for the post-verbal constituents to adjoin to the highest position, the verb has to be at the highest head. What Aygen (2000) objects here is that this line of argument can also support the opposite analysis.

Theoretically, this argument could as well support the opposite claim: That the availability of post-verbal scrambling is an indication of the lack of T-to-C. V-to-T-to-C derives a structure where post-verbal scrambling of the internal arguments of the verb would result in "adjunction to their own maximal projection" since the CP they adjoin is in fact a complex head including their own head. Consequently, adjunction of a phrase to its own maximal projection renders such structures ungrammatical. Availability of post-verbal scrambling, therefore, might as well

indicate lack of T-to-C in root clauses and finite embedded structures. (Aygen, 2000: 68-69)

About licensing of subject NPIs by the negation on the verb, Aygen (2000) provides the following examples.

(62) a. Kimse gel-me-di.
No one come-neg-Past
"Noone came

b. *Kimse gel-di
noone-nom come-past-agr

(63) a. *Hasan [kimse-nin gel-diğ-i]ni san-ıyor.
noone-gen come-DIK-agr-acc think-prog
"Hasan thinks no one came."

b. Hasan [kimse-nin gel-me-diğ-i]ni san-ıyor.
noone-gen come-neg-DIK-agr-acc think-prog
"Hasan thinks no one came."

(Aygen, 2000:70)

What Aygen (2000) argues about the examples above is that they do not necessarily show that the NPI must be c-commanded by negation, they just show that the NPI needs negation.

After explaining the data above, with respect to the nature of scrambling in Turkish, Aygen (2000) claims that local scrambling in Turkish displays characteristics of A-movement while long-distance scrambling exhibits the properties of A-bar movement. Consider (64) below.

(64) Hasan [[Ayşe-nin$_i$ kek-i]$_j$ni o$_i$-nun t$_j$ ye-diğ-i]ni san-dı.
-gen cake-acc she-gen eat-DIK-agr-acc think-past
"Hasan thought that Ayşe's cake, she ate' mimicking the Turkish data.
(Aygen, 2000:71)

In (64) above, the object of the embedded clause seems to be in an A-position according to Condition C test since there is no reconstruction and the structure is grammatical. For long-distance scrambling, Aygen (2000) argues that it takes place in two steps.

(65) [Ayşe-nin$_i$ kek-i]$_j$ni Hasan [t$_j$ o$_i$-nun t$_j$ ye-diğ-i]ni san-dı.
-gen cake-pos-acc she-gen eat-DIK-agr-acc think-past
"Ayşe's cake, Hasan thought that she ate."
(Aygen, 2000:72)

Lack of condition C effects in (65) shows that the reconstruction site for long-distance scrambled object is the intermediary position, which is an A-position.

(66) *[Ayşe-nin$_i$ kek-i]$_j$ni o$_i$ [t$_j$ Hasan-ın t$_j$ ye-diğ-i]ni san-dı.

gen cake-pos-acc -gen eat-DIK-agr-acc think-past

(Aygen, 2000:72)

However, (66) above exemplifies a long-distance A-bar movement and it also shows Condition C effects because the long-distanced scrambled object reconstructs to the intermediary position and gets bound by the pronoun violating Principle C of the binding theory.

Thus, Aygen (2000) concludes that scrambling is a feature-driven obligatory operation. Motivations are such for scrambling in Turkish. Local scrambling, which is an A-movement, is driven by the EPP feature and long distance scrambling, which is an A-bar movement, is driven by Focus feature.

1.4.2.3 Kornfilt (2005)

Kornfilt (2005) mainly investigates whether post-verbal constituents are located higher or lower than preverbal constituents and whether post-verbal scrambling is similar to pre-verbal scrambling with respect to scope relationships and hierarchical positions. She first argues against Kayne's (1994) work, where asymmetric c-command and linear sequence directly correlate and rightward movement is excluded by providing evidence from c-command relations of focus particles, exemplified in (67).

(67) Sanık sadece [hakimi-in uyuyakal- dığ- ın]- I
accused only judge-GEN fall asleep- Fact. Nom.- 3.SG- ACC
farket-ti.
notice-Past
"The accused noticed only that the judge had fallen asleep."

(Kornfilt, 2005:164)

The focus particle *sadece* can take scope over the subject or the embedded clause, indicating that it c-commands the subject or the nominalized complement clause.

(68) Sanık (*sadece) farket-ti [hakimi-in uyuyakal- dığ- ın]- ı
accused only notice-Past judge-GEN fall asleep- Fact. Nom.-3.SG-ACC
"The accused noticed only that the judge had fallen asleep."

(Kornfilt, 2005:165)

(68) is ungrammatical because the focus particle cannot c-command the subject and the embedded clausal complement and this indicates that the post-verbal constituent is located in the phrasal structure higher than the pre-verbal constituents. However, when two constituents in post-verbal position are taken into account, Kornfilt (2005) concludes that they may reconstruct to their base-generated or A-moved positions.

(69) Ayşe sözet- miş üç kişi- ye her kitap-tan.
Ayşe mention- EpPast 3 person-DAT each book-ABL
"Ayşe mentioned about each book to three people."

(70) Ayşe sözet- miş her kitap- tan üç kişi-ye.

Ayşe mention-EpPast each book- ABL 3 person-DAT

"Ayşe mentioned about each book to three people."

(Kornfilt, 2005:171)

In (69) and (70) above, there are two post-verbal constituents (PVC), one of which is a numeral quantifier and the other is an ablative quantifier. For example, if the numeral quantifier takes scope over the ablative quantifier in (69), it should also take the same scope in (70). This shows that PVCs in the constructions reconstruct to same positions in both (69) and (70).

As cited from Kornfilt (2005), what she concludes from the examples above is (71) below.

(71)

1. Rightward scrambling is always reconstructed.

2. The position of reconstruction for a scrambled PVC is either its base-position:

a. ……. t_i V XP_i (with t_i as its reconstruction site)

or a position derived by preverbal scrambling as an intermediate step, before post-verbal scrambling takes place:

b. … t_i '…. t_i V XP_i (with t_i' as its reconstruction site)

(Kornfilt, 2005:174-175)

1.4.2.4 Öztürk (2005, 2007)

Öztürk (2005), unlike Kural (1993) who argued that clause-internal scrambling is always A-bar movement, argues that clause-internal scrambling can be both A and A-bar movement. Citing from Kural (1993), she gives evidence from binding facts of a pronoun inside the subject, as in (72) and (73) below, where scrambling can create new binders as predicted under A-movement.

(72) * [pro$_i$ sekreter-i] herkes-i$_i$ ara-dı..
pro secretary-3ps everyone-acc call-Past
"His secretary called everyone."

(73) Herkes-i$_i$ pro$_i$ sekreter-i ara-dı.
everyone-acc secretary-3ps call-Past
"Everyone$_i$ loves his$_i$ brother."
(Öztürk, 2005:171)

Another piece of evidence supporting the existence of clause-internal scrambling in Turkish comes from scope facts of object preposing cases.

(74) Ali bütün test-ler-e gir-me-di
Ali all test-Pl-DAT take-neg-past
"Ali did not take all the tests." (neg>all,* all>neg)
(Öztürk, 2005:171)

In (74), the object takes narrow scope with respect to negation, which means that it has not actually left its base-generated position. However, when the object is preposed, scope relations are reversed in that the object takes wide scope over negation.

(75) Bütün test-ler-e Ali gir-me-di
all test-Pl-DAT Ali take-neg-past
"Ali did not take all the tests." (*neg>all, all>neg)
(Öztürk, 2005:171)

What (74) and (75) imply, according to Öztürk (2005), is that there is no conceptual reason for not assuming that there is A-scrambling in Turkish because the object does not reconstruct and takes wide scope over negation.

She further argues against Kural's analysis on the representation of focus and exemplifies that contrastive focus on a preverbal subject makes reconstruction possible, which is impossible under Kural's analysis.

(76) a. Adam-lar birbirleri-ni gör-müş.
Men-pl each other-acc see-past
"The men saw each other."

b. *Birbirleri-ni$_i$ adam-lar t_i gör-müş
each other-acc Men-pl see-past
"The men saw each other."

(77) birbirleri-ni$_i$ ADAMLAR t_i ara-dı (kadınlar değil)

each other-acc men-pl call-past (women not)

"The men called each other, not the women"

(Öztürk, 2005:172)

Öztürk (2005) argues that under Kural's (1993) analysis, (77) should be ungrammatical because reconstruction of the anaphor changes the focus relations. The grammaticality of (77) weakens Kural's (1992) analysis of focus. By looking at the data discussed above and giving evidence from binding relations and focus representations, Öztürk (2005) claims that Turkish exhibits both A and A-bar movement.

Öztürk (2007) proposes that there are two goal positions in Turkish double-object constructions. Following Miyagawa and Tsujioka (2004), she argues that there are two kinds of goals, namely high goal and low goal. The theme is located between the high goal and the low goal. The main evidence for this comes from binding facts. Example (78) shows that theme›goal order cannot be the basic order since according to the contrastive focus test developed by Kural (1993), the theme can reconstruct to its base generated position, violating A-movement effects.

(78) a. Her adam-a$_i$ pro$_{i/j}$ resm-in-i ver-di-m.

Every man-DAT picture-3PS-ACC give-PAST-1PS

"I gave every man his picture."

b. [pro$_{*i/j}$ resm-in-i]$_k$ her adam-a$_i$ t$_k$ ver-di-m.

picture-3PS-ACC Every man-DAT give-PAST-1PS

"I gave every man his picture."

c. [pro$_{i/j}$ resm-in-i]$_k$ her adam-a$_i$ t$_k$ DÜN

picture-3PS-ACC every man-DAT YESTERDAY

ver-di-m.

give-PAST-1PS

"I gave every man his picture YESTERDAY."

(Öztürk, 2007:307)

These examples in (78) show that, possessive goal is higher in the structure than the theme. However, locative goal must be lower than the theme. Examples in (79) show that locative goal can reconstruct when there is contrastive focus, so it must not have moved there, instead, it must have been base-generated lower than the theme.

(79) a. Resm-i$_i$ pro$_{i/j}$ çerçeve-si-ne koy-du-m.

picture- ACC frame-3PS-DAT put-PAST-1PS

"I put the picture to his/its frame."

b. [pro$_{*i/j}$ çerçeve-si-ne]$_k$ resm-i t$_k$ koy-du-m

frame-3PS-DAT picture- ACC put-PAST-1PS

"I put the picture to his/its frame."

c. [$pro_{i/j}$ çerçeve-si-ne]$_k$ resm-i t_k DÜN

frame-3PS-DAT picture- ACC YESTERDAY

koy-du-m.

put-PAST-1PS

"I put the picture to his/its frame YESTERDAY."

(Öztürk, 2007:308)

In conclusion, what Öztürk (2007) suggests in terms of the positions of dative and accusative marked objects relying on the clues provided by contrastive focus test and reconstruction possibilities is that the possessive goal is higher than the theme and the theme is higher than the locative goal, illustrated in (80) below.

(80) High goal$_{possessive}$ …….theme…….low goal$_{locative}$

(Öztürk, 2007:308)

1.4.2.5 Göksel (1998)

Göksel (1998) deals with the interpretation of quantified expressions and their linear order with respect to each other. For example, in (81) below, there is no distributive reading while there is in (82).

(81) Her çocuk bir öğretmene çiçek verdi.

every child a teacher(DAT) flower gave

"Every gave flowers to a teacher."

i. Distributive reading: For every child there was a teacher, such that each child gave flowers to a (different) teacher.

ii. Nondistributive reading: There was some teacher to whom every child gave flowers.

(82) Bir çocuk her öğretmene çiçek verdi.

a child every teacher(DAT) flower gave

"A child gave flowers to every teacher."

i. *Distributive reading: For every child there was a teacher, such that each child gave flowers to a (different) teacher.

ii. Nondistributive reading: There was some teacher to whom every child gave flowers.

(Göksel, 1998:85-86)

Göksel (1998) argues that when focus is taken into account, it affects the interpretation of quantified expressions.

(83) Bir hemşire *bakIyor* her hastaya.

a nurse is seeking every patient(DAT)

"A nurse is seeking every patient." (Distributive reading unavailable)

(84) Bir *hemşiRE* bakıyor her hastaya.

a nurse is seeking every patient(DAT)

"A nurse is seeking every patient." (Distributive reading available)

(Göksel, 1998:86)

Göksel (1998) argues that if the existentially quantified expression is focused when it precedes a universally quantified expression, distributive reading becomes available, indicating that focus plays an important role in the interpretation of quantified expressions.

To explain such facts, Göksel (1998) argues that configurational hierarchy and linear order must be treated disjointly and quantified expressions are interpreted according to their linear orders. For the representations of quantifiers, she argues that indefinite quantifiers are dependent variables and for interpretation, they depend on other expressions. Thus, the representation of the two readings available in (85) below will be as in (86).

(85) Her doktor bir hastaYI görüyor.

every doctor a patient(ACC) is seeing

"Every doctor is seeing a patient."

(86) a. $\forall x \exists y$ V(x,y) (Narrow scope reading of indefinite-distributive reading.)

b. $\exists y \forall x$ V (x,y) (Wide scope reading of indefinite-nondistributive reading.)

(Göksel, 1998:90)

Since these readings are problematic in that they do not show the dependent nature of indefinites and ignores the surface order of the quantifiers, Göksel (1998) puts forth another alternative by scolem constant, represented in (87) below.

(87) a. $\forall x$ V (x, g(x)) (Distributive reading)

b. s_i $\forall x$ V (x, g(s_i)) (Nondistributive reading)

(Göksel, 1998:91)

Göksel explains the representations in (87) as follows. In (87a) above, the scolem constant g(x) has a dependent taking its interpretation from another variable and this structure yields distributive reading. In (87b), the scolem constant has g(s_i), which represents temporal specification of the expression as the source of dependency.

With respect to the representation of focus, Göksel argues the following. Contrastive focus causes the listener to develop a presupposition containing all information apart from the focused one. She provides the following for the representation of focus.

(88) Kitabı Ahmet okudu.

book-ACC Ahmet read

"Ahmet read the book."

(89) λx (read (x, book))

(Göksel, 1998:99)

The position for the focused constituent is left empty, which creates an open sentence indicated by the –operator.

Göksel argues that the reason why focus induces distributive reading in (84) is because focus extends the choices that the indefinite can be assigned,making the distributive reading available.

Göksel (1998) concludes that quantifier interpretation is sensitive to linear order regardless of hierarchical positions of the constituents and focus constructions should have an independent status in the grammatical theory. This view also tries to explain the facts of scrambling in adifferent way assumed throughout this thesis.

1.5 Outline of the Thesis

In chapter 2, I will give a detailed analysis of clause-internal and inter-clausal scrambling by investigating its interaction with the representation of focus, other functional projections and information structure elements. In chapter 3, I will adapt the findings reached in chapter 2 about leftward scrambling into postverbal clause-internal scrambling and try to see whether what is proposed in chapter 2 will be adequate enough analysis to shed light on the post-verbal scrambling in Turkish, too. In chapter 4, I will overview the conclusions reached in chapters 2 and 3.

CHAPTER 2

LEFTWARD SCRAMBLING

2.1 Introduction

This chapter discusses the problems in the previous analyses of scrambling in Turkish and tries to propose a unified account to explain the facts of scrambling in Turkish from a minimalist perspective. I will try to explain the main motivation for different word orders in Turkish by relying on the interaction between focus and topic positions and movement in syntax.

The idea of relating information structure to syntax is not a new one (Miyagawa, 2004; Baker, 2003; Özsoy 2005). The details of these studies will be given below. In my analysis, I will focus on the interaction of information structure, namely topic and focus features and positions with scrambling, which has received much attention in the literature.

Özge (2003) puts forth how information structure affects word order as follows.

> One of the factors that affect how we put a proposition into words is our beliefs about how much the hearer knows and s/he is attending to our prior utterance. From our, i.e. the speaker's, perspective then, a proposition can be divided into a part that we believe to be known by the hearer, and a part that we believe to be conveying something that is new to the hearer. The dimension along which such partitionings are carried out is often called *information structure*. It is the structural encoding of this extra-propositional ingredient of linguistic meaning that gives rise to different structural manifestations of the same propositional content.
>
> (Özge, 2003:1)

Logically thinking, what Özge (2003) argues above should be on the right track. As will be discussed extensively in later sections, when the speaker considers a constituent as the most prominent one in the structure, he or she puts it in the position resorted for focused constituents. When the speaker considers a constituent as given information, he or she puts it in the position resorted for topics.

2.1.1 Problems

To begin with, as mentioned before, for the minimalist program, scrambling conflicts with the last resort principle of the minimalist program, according to which an element cannot move unless it has to do so.

There have been different accounts related to scrambling in the literature. Some of these accounts consider scrambling as A-movement, and some others consider it as A-bar movement. However, none of these approaches can explain the relevant data exhaustively. My aim in this thesis is to try to develop an account that could possibly shed light on the issue of the motivation of scrambling in Turkish. Now, Let us take a look at the previous approaches and see problems encountered in these approaches.

2.1.2 Kural vs Öztürk (A vs A-bar movement)

As summarized in section 1.4.2.1, Kural (1993), in parallel to Saito (1989), proposes that all instances of NP fronting, both clause internal and inter-clausal scrambling in Turkish, are examples of A-bar movement. In his argument, the status of focus plays

the most crucial part to diagnose the nature of NP fronting as an instance of A-bar movement, but not as A-movement.

What Kural (1993) mainly argues for is that a scope taking element or a binder cannot be focused at S-structure, where he attributes focus to immediately preverbal area. More precisely, when there is difference between the representation of focus at S-structure and LF, the derivation crashes.

As extensively discussed in Öztürk (2004, 2005), one of the problems in Kural's analysis is related to the existence of A-scrambling in Turkish. Öztürk (2004, 2005) argues that there is no conceptual reason for not assuming that there is A-scrambling in Turkish. To prove this, she gives the following examples.

(1) a. Ali bütün test-ler-e gir-me-di.
Ali all test-Pl-DAT take-neg-past
"Ali did not take all the tests." (neg>all,* all>neg)

b. Bütün test-ler-e Ali gir-me-di.
all test-Pl-DAT Ali take-neg-past
"Ali did not take all the tests." (all>neg, *neg>all)

c. Bütün çocuk-lar Allahtan o test-e gir-me-di-ler.
all child-pl fortunately that exam-dat take-neg-past
"All children didn't take the test." (all>neg, *neg>all)

(Öztürk, 2005:170-171)

In (1a), the object unambiguously takes narrow scope while it takes wide scope in (1b). This indicates that the object has not left its base position in (1a), but it has left its base-generated position in (1b). In (1c), the subject takes wide scope reading, indicating that the subject is not in a vP internal position undergoing an A-movement. Öztürk (2004, 2005) argues that the movement in (1c) is definitely an A-movement. If movement in (1c) is an A-movement, it may be the same case in (1b), too. The movement in (1b) seems to be an A-movement since the object cannot take narrow scope undergoing reconstruction. So, she concludes that there is no conceptual reason for not assuming that there is A-movement in Turkish.

Another problem with Kural's analysis for (1c), as discussed in Öztürk (2004, 2005), is that the reconstruction of the subject to take narrow scope is impossible. Under Kural's (1993) account, it would be expected that this reconstruction would be possible because all instances of movement are considered to be A-bar movement in his account. Notice also that reconstruction of the subject would not change the focus relations. Öztürk (2004, 2005) argues that focus cannot explain the unavailability of reconstruction in (1c), which strongly challenges Kural's (1993) account.

Kural (1993) argues that focus position in Turkish is the immediately pre-verbal position. However, this approach is weakened by the analysis of Göksel & Özsoy (2000). Rather than attributing focus to an immediately preverbal position, Göksel & Özsoy (2000) puts forth what they call a focus domain in the preverbal area. Any position in this focus area can host a focused-phrase (f-phrase as appeared in the original paper). Göksel & Özsoy (2000) attributes the immediately preverbal area to sentential stress. Thus, following Göksel & Özsoy (2000), Öztürk (2004, 2005) argues that the idea that focus is realized in the immediately preverbal area is

too simplistic since a focused phrase can occur in any preverbal area which is in the focus domain. The details of Göksel & Özsoy (2000)'s approach to focus will be presented in more detail in section 2.2.1.

Another problem discussed in Öztürk (2004, 2005) is related to the difference between (2a) and (2b) below in terms of grammaticality.

(2) a.* Birbirleri-ni$_i$ adam-lar gör-müş.
each other-acc men-pl see-past-agr
"The men saw each other."

b. Birbirleri-ni$_i$ ADAM-LAR ara-dı (kadınlar değil)
each other-acc men-pl call-past (women not)
"The men called each other, not the women"

(Öztürk, 2005:172)

In (2a), the subject, occupying the immediately preverbal area carries sentential stress while it has contrastive stress in (2b). Kural (1993) tries to account for the ungrammaticality of (2a) by claiming that reconstruction of the object would change the focus relations at LF and S-structure. However, although reconstruction of the object would still change the focus relations in (2b), the sentence is grammatical, allowing reconstruction. Öztürk (2004) argues that under Kural's approach; (2b) would be expected to be ungrammatical, contrary to the fact.

Note that (2b) above also is a problem for Aygen's (2000) and Özsoy's (2005) analysis. As discussed in section 1.4.2.2, Aygen (2000) claims that all cases of clause-internal scrambling are A-movement. Similar to Aygen (2000), Özsoy

(2005) also claims that all instances of clause-internal scrambling are A-movement as a result of topic percolation to T. However, if we assume that movement of the object in (2b) is A-movement, then we would expect to have Principle A and Principle C effects since the object, which is an anaphor stays unbound and also it becomes a binder for the subject, which is an R-expression and should be free everywhere. This indicates that movement of the object in (2b) should be considered as an A-bar movement, rather than A-movement.

İşsever (2007) reveals another problem in Kural's (1993) account. As discussed above, according to Kural, focus must be the same at both levels, which leads him to propose the following in Kural (1994).

(3) Focus Preservation Principle (FPP):

A constituent c that is focused at S-structure must also be focused at LF.

(Kural, 1994:74)

İşsever (2007) objects to Kural's claim that focus is recalculated at LF so that what is occupying the immediately preverbal position is interpreted as focus at this level. However, following Zubizarreta (1998), İşsever (2007) argues that f-marking is set before LF and must be interpreted as it is at LF. Thus, he concludes that f-marking and f-structure must be the same both at S-structure and LF. He explains the derivations as in (4).

(4) a. Adam-lar$_{i(+F)}$ birbirleri-ni$_i$ gör-müş.

men-pl each other-acc see-past-agr

"The men saw each other."

b. *Birbirleri-ni$_i$ adam-lar$_{i(+F)}$ gör-müş.

each other-acc men-pl see-past-agr

"The men saw each other."

(İşsever, 2007:7)

The subject in both (4a) and (4b) carries focus at S-structure and LF since f-marking is established prior to LF. Thus, the attempt trying to explain the ungrammaticality of (4b) by arguing that focus is different at LF and S-structure loses its validity.

İşsever (2007) reveals another problem in Kural's analysis. According to Kural (1993), a scrambled anaphor cannot be reconstructed to a position lower than the focus. However, empirical facts prove just the opposite. Assuming that relative order of objects in Turkish is DO-IO (Underhill, 1972; Erkü, 1983; Erguvanlı, 1984; Kornfilt, 1997), İşsever (2007) gives the following examples.

(5) a. Ali$_i$ bu pasta-yı KENDİ-NE$_i$ ayır-dı.

Ali-NOM this cake-ACC self-DAT save-AST.3SG

'Ali saved this cake for HIMSELF.'

b. Kendine$_i$ Ali$_i$ BU PASTAYI t_i ayırdı.

'Ali saved THIS CAKE for himself.'

'Ali saved this cake for HIMSELF.'

(İşsever, 2007:7)

The object anaphor in (5b) is reconstructed to a position lower than focused phrase, weakening Kural's (1993) analysis. He further argues that even if the relative order

of objects is assumed to be IO-DO (Lewis, 1967), the result would be the same, which is exemplified in (6) below.

(6) a. Ali_i bu iş-e $KENDİNİ_i$ adadı.

Ali-NOM this work-DAT self-ACC devote-PAST.3SG

'Ali devoted HIMSELF to this work.'

b. $Kendini_i$ Ali_i BU İŞE t_i adadı.

'Ali devoted himself to THIS WORK.'

(İşsever, 2007:8)

In (6b), the object anaphor is again reconstructed to a position below f-phrase, which weakens Kural's (1993) analysis.

Another study which discusses scrambling in Turkish is Öztürk (2004, 2005). The first line of argument in her analysis is related to the lack of EPP in Turkish.

(7) Bütün çocuk-lar o test-e gir-me-di.

all child-Pl that test-DAT take-Neg-Past

"All children did not take that test." (neg>all, *all>neg)

(Öztürk, 2005:170)

In (7), according to Öztürk (2005), the subject takes narrow scope with respect to negation, indicating that it has not left its base-position. The subject then, is in a vP internal position along with the object and the Spec position of TP is empty. If it is

possible that in some structures [Spec, TP] is empty, and then she argues that it is not obligatory to fill in the Spec position of TP, DPs do not need to check EPP in Turkish; rather EPP in Turkish is checked via head movement, as in Alexiadou and Anagnostopoulou (1998) and Öztürk (1999).

For scrambling, she proposes that scrambling is not a uniform operation and there are two kinds of scrambling, A and A-bar scrambling. She tries to provide different motivations for these two different types of scrambling. Following (Erguvanlı, 1984; Sezer, 1991; Kornfilt 1997, Aygen 2002a), she argues that only referential/specific NPs are allowed to scramble, thus establishes a subject-predicate relation. The motivation for A-scrambling is then topic/subject-predication in Turkish, where this establishment is not obligatory since [Spec, TP] may not be projected at all in Turkish according to Öztürk (2004, 2005). She further explains scopal ambiguities by using the analysis she has put forth. (8) is ambiguous between two readings.

(8) Her çocuk bir kitab-ı oku-du
Every child one book-ACC read-Past

i. "Every child read a specific book." ∃>∀

ii. "Every child read a different book out of a definite set of books."∀>∃

(Öztürk, 2005:180)

She argues that the ambiguity in (8) does not result from QR as discussed by Aygen (2002b), rather it results from two distinct derivations illustrated in (9) below.

(9) a. [$_{\text{Spec TP}}$ ∃ [$_{\text{AgentP}}$ Her çocuk [$_{\text{ThemeP}}$ bir kitab-ı oku-du]]]

b. [$_{\text{Spec TP}}$ Her çocuk$_i$ ∃ [$_{\text{AgentP}}$ t_i [$_{\text{ThemeP}}$ bir kitab-ı oku-du]]]

(Öztürk, 2005:180)

In (9a), both the subject and the object stay in-situ and this leads to narrow scope reading in (8ii). In (9b), the subject undergoes A-movement to [Spec, TP] and allows wide scope reading in (8i). She argues that A-scrambling of the object into [Spec, TP] always gives wide scope reading, which follows from the fact that the subject has to stay in its base position since [Spec, TP] is filled with the object, as exemplified in (10) from Öztürk (2005).

(10) [$_{\text{TP}}$ Bir kitab-ı$_i$ [$_{\text{AgentP}}$ her çocuk [$_{\text{ThemeP}}$ t_i oku-du]]]

one book every child read-Past

"Every child read a specific book." ∃>∀

(unambiguous)

The motivation for A-bar movement, according to Öztürk (2004), is the existence of contrastive focus. She argues that when sentential stress and focal stress are realized on a single constituent, contrastive focus causes all constituents to become dislocated and move to the CP domain undergoing A-bar movement.

(11) [$_{\text{TopP}}$ Birbirleri-ni$_j$ [$_{\text{TopP}}$ adam-lar$_i$ [$_{\text{FocP}}$ DÜN][$_{\text{TP}}$[$_{\text{Spec, AgentP}}$ t_i [$_{\text{Spec, ThemeP}}$ t_j gör-müş]]

(Öztürk, 2005:182)

In (11), the contrastively focused phrase is at [Spec, FocP] and this makes all other constituents dislocate and undergo A-bar movement to a position higher than FocP, since Öztürk (2004, 2005) assumes that FocP is the lowest projection in the CP domain.

One problem with Öztürk's analysis is that she assumes that only referential/specific NPs can scramble[1]. However, İşsever (2008) presents evidence that bare NPs can also scramble to preverbal area if they are recoverable from context. He gives the example from Uygun (2006) in (12).

(12) a. *Kahve*$_i$ ALİ de t_i istemişti.

coffee Ali-NOM too want-PAST-PAST.3SG

'Ali would have liked coffee, too.'

(Uygun, 2006)

b. A- Herkes şiir okudu mu?

all.NOM poem read-PAST.3SG Q

'Did all read a poem/poems?'

B- *Şiir*$_i$ herkes t_i okumadı (ama herkes roman okudu).

poem all.NOM read-NEG-PAST.3SG

'All did not read a poem/poems (but all read a novel/novels)'

not >> all, *all >> not

(İşsever, 2008:14)

[1] Note that Öztürk modifies her account regarding the Scrambling of bare NPs in Turkish in her work on pseudo-incorporation in Turkish. See Öztürk (2009) for details.

He further gives evidence that bare NPs can scramble to a position before certain adverbs, as in (13).

(13) A- Elma ister misin?

'Would you like to eat apples?'

B- Bugün e*lma*$_{i}$ çok t_i yedim. Sağol.

today apple much eat-PAST-1SG thanks

'No, thanks. I ate too much apples today.'

(İşsever, 2008:13)

Another weakness of Öztürk (2004) is related to when topic/subject-predication is established. She accounts for the ambiguity in (8) by different derivations illustrated in (9a) and (9b), however, it is not clear when topic/subject-predication allowing the subject or the object to move to [Spec, TP] in a given structure is established. It follows from (9) that in (9a), there is no subject-predication while there is in (9b).

İşsever (2007) reveals another problem on theoretical grounds related to Öztürk (2004)'s analysis of scrambling.

It must be noted that the account that Öztürk follows, i.e. Miyagawa (2004), also needs discussion. Under Miyagawa (2004), topics are attracted to Spec,TP by the [+focus] feature. This clearly violates the condition of Greed (Chomsky, 1995), which states that the application of an operation to a constituent to benefit another one is not allowed. Therefore, attracting of topics by the [+focus] feature for the benefit of another element to receive informational focus is something that must be avoided in grammar. However, since a discussion of Miyagawa's (2004) account is beyond the limits of this study, I leave this issue for future research.

(İşsever, 2007:10)

Although Kural's analysis has problems in both theoretical and empirical grounds as discussed above, his account is a contribution to explain scrambling in Turkish by relating information structure and syntax. Öztürk (2004, 2005) also considers topic and focus as crucial components in the analysis of scrambling. In my analysis, similar to Kural (1993) and Öztürk (2004, 2005), I will argue that the motivation of scrambling in Turkish is related to the interaction of information structure and syntax. I will depart from Öztürk's analysis in that in my proposal, [Spec, TP] will be resorted only for subjects, not for objects, the reason of which will be explained as the discussion proceeds. I will propose that scrambling is the result of topicalization and the existence of two types of focus in the structure, namely identificational focus and informational focus. More precisely, I will argue that scrambling is a combination of A and A-bar movement. In my analysis, the features of identificational focus and informational focus are checked at different positions in the structure. Identificational focus triggers movement to FocP and checked at this position. Contrary to identificational focus, informational focus does not trigger movement and is checked via the operation AGREE. The details of this alternative proposal will be given in sections 2.3. Before going into the details, let us look at the interaction of focus and scrambling.

2.2 Focus & Scrambling

This section gives background knowledge about the relation between focus and scrambling. In section 2.2.1, different types of focus, namely identificational focus and informational focus will be discussed in the sense of Kiss (1998) and Göksel

and Özsoy (2000). Section 2.2.2 relates these focus types to scrambling in Turkish and illustrates how focus affects scrambling in Turkish.

2.2.1 Identificational Focus vs Informational Focus

É. Kiss (1998) divides focus into two types and she calls these identificational focus and informational focus.

> É. Kiss (1998)
>
> (i) Informational focus: what is not presupposed in a topic-focus (theme-rheme) structure.
>
> (ii) Identificational focus: expresses exhaustive identification.

In terms of semantic-communicative role in the sentence, she provides the description in (14) for a constituent bearing the identificational focus.

> (14) The function of identificational focus
> An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds.
>
> (Kiss, 1998:1)

The main difference between identificational focus and informational focus with respect to their phonological features is on their stress assignment rules. Identificational focus requires contrastive stress and contrastive stress falls on the constituent bearing the identificational focus feature regardless of its position in the sentence. However, informational focus requires sentential stress and sentential

stress falls on the constituent which is the lowest one in the tree based on Cinque's (1993) nuclear stress assignment rule.

(15) John read *a book*.

In (15), a book gets the stress since it is the lowest constituent in the tree. Actually both the verb and the object are the lowest elements in the tree. However, in this case, Cinque (1993) suggests that what is selected by the other is accepted as the lowest. Thus, in (15), since the verb selects the object, the object is the lowest constituent in the structure and gets the stress, indicating it has informational focus.

Selkirk (2002) examines the difference between contrastive focus and informational focus with respect to their prosodic properties and reaches the following.

> The contrastive FOCUS shows not only a L+H* pitch accent, but also a following phonological phrase break, marked by both a L- phrase accent and temporal disjuncture. In the same context, presentational focus shows a pitch accent H* and no phonological phrase break (no L- and no disjuncture). Since these differences in prosody correlating with different Focus types are not plausibly construed as the realization of distinct tonal morphemes, I suggest that the contrastive/presentational contrast is present in the interface informational/syntactic structure itself, and makes itself felt in the phonological representation through the action of syntax-phonology interface constraints which distinguish the two Focus types.
>
> (Selkirk, 2002:643)

What makes Selkirk's (2002) study important for this thesis is it shows that, apart from the differences É. Kiss (1998) provides, there is a contrast between contrastive or identificational focus and informational focus with respect to their prosodic properties, each having different prosodic properties.

Selkirk (2006) also argues that the existence of contrastive focus in the structure affects truth conditions and conversational implicatures, thus sentences with or without contrastive focus have different presuppositions. Citing from Truckenbrodt (1995) and Rooth (1996b), she provides Contrastive Focus Prominence Rule (henceforth CFPR) in (16) below.

(16) Contrastive Focus Prominence Rule (Truckenbrodt, 1995; Rooth, 1996b)

Within the scope of a focus interpretation operator, the corresponding F marked [contrastive focus] constituent is the most metrically prominent.

(Selkirk, 2006:128)

She argues that, according to CFPR in (16), the constituent that is F-marked, that is, contrastively focused in the structure is supposed to be the most prominent one. Thus, even if the phrase stress of other constituents changes for independent reasons, we would expect the stress pattern of the contrastively focused constituents to change according to those phrases. This was examined in a study by Katz and Selkirk (2005/6).

(17) Wíttgenstein only$_i$ [brought a glass of wíne over to Ánscombe$_i$].

(I was surprised until I found out that Geach, who was standing with her, was on the wagon.)

(18) Wíttgenstein only$_i$ [brought a <u>glass of wíne$_i$</u> over to Ánscombe].

(She was impatient until the appetizers were brought around by waiters.)

(Selkirk, 2006:129)

In the above examples, the contrastive focused DP is underlined and coindexed with the focusing adverb *only*, showing that they are associated. (17) and (18) provide examples where there is a contrastively focused constituent used with other discourse-new phrase-stressed constituents. In the study, the prosody of sentences like (17) and (18) were compared to the prosody of sentences like (19) below in terms of duration and pitch boost.

(19) Wíttgenstein brought a gláss of wíne over to Ánscombe.

(Selkirk, 2006:129)

Selkirk (2006) summarizes the result in the way that the phonetic prominence of contrastively focused constituents was significantly greater than other non-contrastive constituents in the same position.

For the purpose of this thesis, it is also important to take a look at how topic and focus are distinguished in terms of their prosodic properties. Selkirk (2006) also distinguishes between the non-contrastive discourse-given constituents (topic or background in our case) and non-contrastive discourse-new constituents (informational focus in our case). She argues that there is no pitch accent in discourse-given constituents, which is exemplified in (20) below.

(20) A: Anscombe has been feuding with her cólleagues.

B: Wíttgenstein brought a glass of wíne over to Anscombe. Perhaps they have made up.

(Selkirk, 2006:132)

Selkirk (2006) argues that in the B sentence above, there is no pitch accent in Anscombe, which would otherwise make the sentence pragmatically infelicitous. By relying on examples like these, Selkirk (2006) follows (Féry and Samek-Lodovici 2006) and provides (21).

(21) Destress Given (Féry and Samek-Lodovici, 2006)

A given phrase is prosodically nonprominent.

(Selkirk, 2006:133)

Thus, any constituent G-marked in their terms, which means that it is marked with the Given feature, can never be stressed.

With respect to semantic import of contrastive focus, Zimmermann (2007), by taking Steedman's (2006) framework as the basis, provides the following Contrastive Focus Hypothesis in (22).

(22) *Contrastive Focus Hypothesis:*

Contrastive marking on a focus constituent α expresses the speaker's assumption that the hearer *will not consider* the content of α or the speech act containing α *likely to be(come) common ground*.

(Zimmermann, 2007: 154)

Zimmermann (2007) argues that "a speaker will use contrastive marking on a focus constituent α if she has reason to suspect that the hearer will be surprised by the assertion of α, or by the speech act containing α."

In (23) below, Zimmermann (2007) shows that contrastive focus is absent in typical answers to wh-questions.

(23) a. Q: What did you eat in Russia? A: We ate *pelmeni*.

b. A: Surely, you ate *pelmeni*! B: No, *caviar*, we ate! /
No, we ate ↑*caviar*! (↑= raised pitch)

(Zimmermann, 2007: 154-155)

According to (22), contrastive focus is predicted to be absent in (23a), which is really the case. The answer to the question just gives the required information. Thus, there is no need to use contrastive focus in (23a). However, (23b) needs contrastive focus. Zimmermann (2007) explains this need in the following way.

> It follows from hearer A's assertion that she does not expect to be contradicted. Also, speaker B can assume that the hearer will not consider caviar a very likely food to be had (even in Russia), and she expresses this accordingly by using a contrastive focus.
>
> (Zimmermann, 2007:155)

The idea that speakers expectations do affect the use of different focus types can also be seen in (24) below.

(24) Q: What did you eat in Russia? A: *Caviar* we ate. / We ate ↑*caviar*!

(Zimmermann, 2007: 155)

In (24), the use of contrastive focus is due to the fact that the information contained by the contrastively focused constituent is considered to be unexpected by the speaker from the hearer's point of view. That is, caviar is not a likely food to be eaten in Russia.

Another argument related to the use of contrastive focus discussed by Zimmermann (2007) is exemplified in (25).

(25) Q: Who (all) did you invite? A: *Peter*, I invited (but nobody else).

(Zimmermann, 2007: 156)

(25) is an answer to a wh-question. The catch here is that the contrastively focused constituent conveys the meaning of explicit rejection of a likely expectation by the speaker. The speaker asking the question expects that the hearer of the question invited many people; however, this is contrary to what the hearer has done. To reject this expectation, the hearer uses contrastive focus.

Gundel & Fretheim (2003) defines the distinction between information focus and contrastive focus as follows:

> One of these is relational - the information predicated about the topic; the other is referential-material which the speaker calls to the addressee's attention, thereby often evoking a contrast with other entities that might fill the same position. We refer to these two senses as information focus and contrastive focus respectively.
>
> (Gundel & Fretheim, 2003:6)

Gundel & Fretheim (2003) also note that the difference between information focus and contrastive focus is marked by their prosodic prominence, which is widely believed to be universal although there are exceptions (cf. Gundel, 1988). For example, information focus and contrastive focus are associated with different pitch accents in English. Informational focus is encoded by using A accent in Bolinger's (1961) and Jackendoff's (1972) terms and contrastive topics (and possibly contrast in general, logically including contrastive focus too) are marked with B accent. A and B accent typically correspond to Pierrehumbert's (1990) H* and L+H* tones respectively. In footnote 16, Gundel & Fretheim (2003) explains the prosody marking the difference between informational focus and contrastive focus as "It is widely assumed that the simplex H* accent specifically codes information focus, whereas L + H* also has other functions including the marking of contrastive information. However, the exact distribution of the two pitch accents is still a matter of some controversy (see Zacharski 1993 and Vallduví and Zacharski 1994 for further discussion of some of these points) (Gundel & Fretheim, 2003:9).

In his study on Hungarian focus structure, Balogh (2006) shows that Hungarian contrastive focus and informational focus occupy different positions in the syntactic structure. When the sentence is a focused one, the focused constituent occupies the immediately pre-verbal position. In the opposite case, the pre-verbal position is occupied by the verbal modifier. The examples are given below in (26) and (27).

(26) Anna felhivta Emilt.
Anna vm-called Emil.acc
'Anna called Emil.'

(27) Anna *Emilt* hivta fel.
Anna Emil.acc called vm
'It is Emil whom Anna called.'

(Balogh, 2006:18)

In (26), the immediately pre-verbal position is occupied by the verbal modifier, however, when there is a contrastively focused constituent, the verbal modifier occupies the post-verbal position and the focused constituent moves to the immediately pre-verbal position. The idea in Balogh's (2006) analysis that focus occupies distinct position in the structure is also compatible with Neeleman & Titov's (2007) analysis of Russian focus, where he argues that Russian foci are licensed at clause-final position, which means that languages differ with respect to where they license their focused constituents.

For the difference between identificational focus and informational focus, Balogh (2006) provides the following:

(28) (a) *identificational focus:* expresses exhaustive identification, certain constituents are out, it takes scope, involves movement and can be iterated;

(b) *information focus:* merely marks the unpresupposed nature, is nonrestricted, does not take scope, does not involve movement and can project.

(Balogh, 2006:19)

Later in this thesis, it will be argued that the difference between identificational focus and informational focus in Turkish has similar characteristics to the difference between different focus types in Hungarian focus structure.

With respect to focus differentiation in Turkish, Göksel & Özsoy (2000) makes a distinction between identificational/contrastive focus and informational/sentential focus. They argue that in Turkish there is a focus domain in the preverbal area. Both focused phrases (f-phrases) and wh-phrases can occur in this focus domain. (29) and (30) below exemplify f-phrases and wh-phrases in the immediately preverbal area, (31) and (32) exemplify other positions hosting f-phrases and wh-phrases.

f-phrases *wh-phrases*

(29) a. Ali-ye yemeğ-i BEN pişir-di-m. (30) a.Ali-ye yemeğ-I KİM pişir-di?
Ali-DAT food-ACC I cook-PAST-1 Ali-DAT food-ACC who cook-PAST-3
"I cooked the food for Ali." "WHO cooked the food for the Ali?"

b. Ben yemeğ-i ALİ-YE pişir-di-m. b.Sen yemeğ-i KİM-E pişir-di-n?
I food-ACC -DAT cook-PAST-1 you food-ACC who-DAT cook-PAST-2
"I cooked the food FOR ALİ." "FOR WHOM did you cook the food?"

c. Ali-yle seyahat-e YARIN çıkıyorum. c.Seyahat-e NE ZAMAN çık-ıyor-sun?
Ali-COM trip-DAT tomorrow go-PROG-1 trip-DAT when go-PROG-2
"I am going on a trip with Ali TOMORROW." "WHEN are you going on a trip?"

f-phrases in-situ *wh-phrases in-situ*

(31) a. BEN Ali-ye yemeğ-i pişir-di-m. (32)a.KİM Ali-ye yemeğ-i pişir-di?
I -DAT food-ACC cook-PAST-1 who -DAT food-ACC cook-PAST-3
"I cooked the food forAli." "WHO cooked the food for Ali?"

b. Ben onlar-a BU EV-İ sat-tı-m.
I they-DAT this house-ACC sell-PAST-1
"I sold them THIS HOUSE."

b.Sen onlar-a NE-Yİ sat-tı-n?
you they-DAT what-ACC sell-PAST-2
"WHAT did you sell them?"

c. YARIN Ali-yle buluş-uyor-um.
tomorrow -COM meet-PROG-1
"I am meeting Ali TOMORROW."

c.NE ZAMAN Ali-yle buluşuyor-sun?
when -COM meet-PROG-2
"WHEN are you meeting Ali?"

(Göksel & Özsoy, 2000:219-220)

Göksel & Özsoy (2000) also argue that post-verbal position cannot host both f-phrases and wh-phrases.

Focus in Post Verbal Position

(33)*Ahmet vermiş KİTAB-I / ANNEM-E / BUGÜN / ACELEYLE
gave THE BOOK-ACC / MY MOTHER-DAT / TODAY / IN A HURRY

Wh-phrases in Post Verbal Position

(34)*Ahmet vermiş KİM-E / NE-Yİ / NE ZAMAN / NEREDE / NASIL?
gave WHO-DAT / WHAT-ACC / WHEN / WHERE / HOW?

(Göksel & Özsoy, 2000:220)

Based on the evidence presented above, they give the following schema to present the facts of focus in Turkish.

(35) {XP.....V}.....

(Göksel & Özsoy, 2000:220)

However, (35) poses problems when f-phrases and wh-phrases interact with each other. Göksel & Özsoy (2000) assumes that stress is the only indicator of focus in Turkish. When there are two focused elements, they compete for stress and there must be some restrictions on their ordering.

wh-phrase + f-phrase	*f-phrase+ wh-phrase*
(36) *Ne zaman OKUL-A gid-ecek-sin?	(37) OKUL-A ne zaman gid-ecek-sin?
when SCHOOL-DAT go-FUT-2	SCHOOL-DAT when go-FUT-2
"When will you go TO SCHOOL?"	
(38) a.*Kim KİM-İ sev-iyor-muş?	(39) a. KİM kim-i sev-iyor-muş?
Who WHO-ACC love-PROG-HS -3	who who-ACC love-PROG-HS-3
"WHO loves who?"	
b. *Kim-i KİM sev-iyor-muş?	b.KİM-İ kim sev-iyor-muş?
Who-ACC WHO love-PROG-HS -	who-ACC who love-PROG-HS-3
"Who loves WHO?"	

(Göksel & Özsoy, 2000:221)

By looking at the paradigm (36)-(39) above, Göksel & Özsoy (2000) state the restrictions as follows:

(40) *wh..…F F……..wh

*wh....WH WH…..wh

(Göksel & Özsoy, 2000:221)

Following (40), they conclude that not all positions in the preverbal area can host phrases bearing non-recoverable information; rather there is a focus domain in the preverbal area. Any constituent out of this domain cannot get focal stress.

(41)..... {XP'.....V}.....

(Göksel & Özsoy, 2000:221)

Göksel & Özsoy (2000) further support their distinction between sentential and focal stress by giving evidence from clitics in Turkish. Clitics in Turkish cannot bear stress themselves, but they assign it to the preceding syllable. When there is an f-phrase in the sentence, the clitic fails to assign stress to the preceding syllable, as seen in (42) below.

(42) a. Okul-a GİT-me-di-n. b. *OKUL-A GİT-me-di-n.

school-DAT go-NEG-PAST-2 SCHOOL-DAT go-NEG-PAST-2

"You did not go to school."

(Göksel & Özsoy, 2000:224)

Göksel & Özsoy (2000) claim that the immediately preverbal position is resorted for sentential stress but since any constituent in the focus domain in the preverbal area

can also bear focal stress, the immediately preverbal position can host constituents bearing both sentential and focal stress.

(43) a. Ev-e GİT-me-di-m. b.EV-E git-me-di-m. c.EV-E git-ti-m.
home-DAT go-neg-pst-1 home-DAT go-neg-pst-1 home-DAT go-past-1
"I didn't go home." "I didn't go HOME." "I went HOME/home."

Göksel & Özsoy (2000) argue that in (43a) the NP in the immediately preverbal position bears sentential stress and the clitic assigns stress to the preceding syllable. (43b) has different presuppositions from (43a) since the NP in the immediately preverbal position bears focal stress. Under Göksel & Özsoy's (2000) analysis, (43c) should be ambiguous, which is borne out by the data. The ambiguity follows from the fact that the NP in the immediately preverbal position may have sentential stress or focal stress. Under each stress, the sentence has different presuppositions from each other.

2.2.2 Turkish Scrambling & Focus

Scrambling in Turkish is sensitive to the difference between identificational and informational focus. The only difference between (44) and (45) below from Öztürk (2005) is the existence of identificational focus vs informational focus.

(44) *Birbirleri-ni$_i$ adam-lar t_i ara-dı.
each other-acc men-pl call-past-agr
"The men saw each other."

(45) Birbirleri-ni$_i$ ADAM-LAR t_i ara-dı (kadınlar değil)]]

each other-acc men-pl call-past (women not)

"The men called each other, not the women"

(Öztürk, 2005:172)

The ungrammaticality of (44) is due to unavailability of reconstruction, indicating that the object has undergone A-movement. The object anaphor cannot reconstruct to its base generated position and thus it is unbound violating Principle A of the binding theory. It can also be ruled out by Principle C since the R-expression subject will be bound in the structure. However in (45) the object anaphor can reconstruct to its base generated position and get bound by the subject, satisfying Principle C of the binding theory. If the object can reconstruct, it must be the case that this movement is A-bar movement. The only difference between (44) and (45) is that, as illustrated in Göksel & Özsoy (2000), the subject carries informational focus in (44) because it occupies the immediately preverbal position. However, the subject in (45) bears identificational focus, which is shown by the stress it takes in the structure. Thus, it should be clear from the examples above that the type of focus affects scrambling in Turkish.

Another piece of evidence on the effect of focus on scrambling comes from İşsever's (2007) reevaluation of Kural's (1993) data.

(46) *Birbirleriyle$_i$ Ahmet adam-lar-ı$_i$ tanıştırmış. (=(3)b)

eachother-PL-POSS-with A.NOM man-PL-ACC introduce-PAST.3SG

"Ahmet introduced the men to each other."

(47) ?Birbirleriyle$_i$ Ahmet adamları$_i$ t_i # TANIŞTIRMIŞ (Kural 1993, [68])

eachother-PL-POSS-with A.NOM man-PLR-ACC introduce-PAST.3SG

"Ahmet introduced the men to each other."

In (46), where there is only informational focus in the sentence, reconstruction of the anaphor is not possible. However, when there is contrastive focus in the sentence, reconstruction becomes available, as illustrated in (47). The verb has contrastive focus in (47) and this seems to affect the interpretation of sentences. Thus, we conclude that the type of focus in the structure has visible and important effects at least with respect to binding.

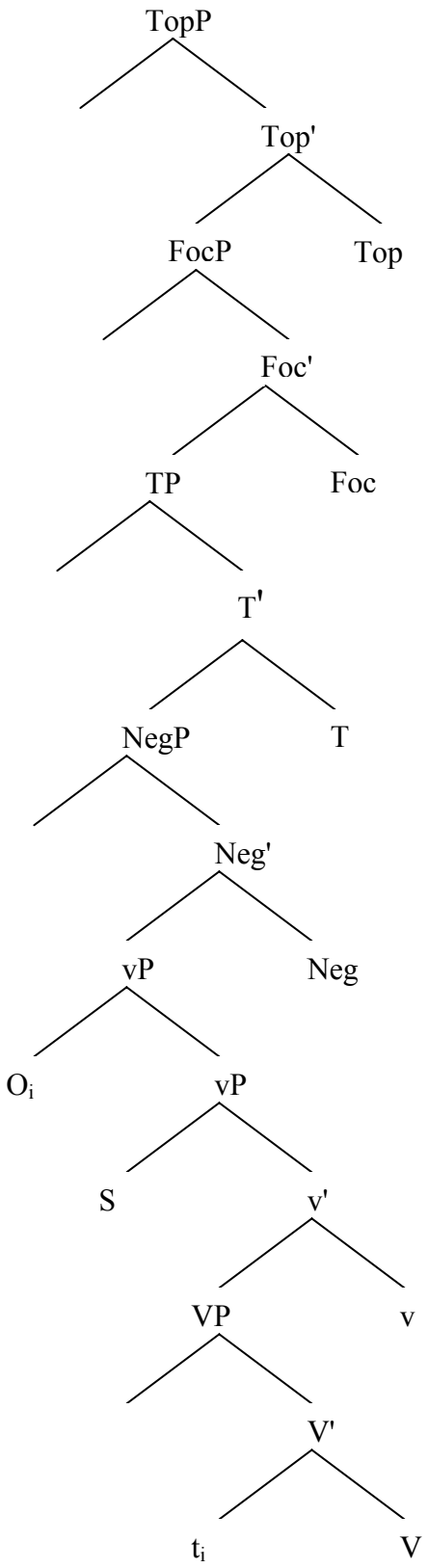
2.3 Analysis

In this section, I will try to analyze how the interaction of focus and topic affects word order in Turkish. I will first take a look at the interaction of identificational focus and topic and then informational focus and topic while trying to explain the scrambling phenomenon in Turkish. Here are my assumptions valid in my thesis.

2.3.1 Assumptions

For the analysis in this thesis, I will take the tree diagram below as the basic phrase structure representation of main clauses in Turkish. Note that following Rizzi (1997), I assume that CP is divided into TopP and FocP, however unlike Rizzi I argue that there is no TopP projection available under FocP the details of which will be given in section 2.3.2.2.

(48)



Following Öztürk (2004, 2005), I will assume that [Spec, TP] position in Turkish does not have to be filled, hence EPP checking is not obligatory, which was exemplified in (7) above, repeated as (49) below.

(49) Bütün çocuk-lar o test-e gir-me-di.
all child-Pl that test-DAT take-Neg-Past
"All children did not take that test." (not>all, *all>not)
(Öztürk, 2005:177)

Since, according to Öztürk (2004, 2005), the subject in (49) takes narrow scope with respect to negation, thus it follows that the subject has not left its base generated position, which leaves [Spec, TP] empty. However, in the proposal that is going to be put forth, whether [Spec, TP] will be filled or not is dependent on topic and focus features existent in the structure as will be discussed in detail below.

Also note that Öztürk (2005), based on the phrase structure model she assumes for Turkish, which is different from the one we had given above, argues that [Spec, TP] is a position that can host both subjects and objects. In my analysis, however, departing from Öztürk, I will assume a more canonical phrase structure illustrated above and following Chomsky (1993); I will consider [Spec, TP] as a position that can host only the subjects, but not the objects. The empirical evidence for this is as follows.

If both the subject and the object can move to [Spec, TP] position, this causes a problem on empirical grounds. Now consider (2b), repeated as (50) below.

(50) a. *Birbirleri-ni$_i$ adam-lar ara-dı.

each other-acc men-pl call-past (women not)

"The men called each other, not the women"

b. Birbirleri-ni$_i$ ADAM-LAR ara-dı (kadınlar değil)

each other-acc men-pl call-past (women not)

"The men called each other, not the women"

(Öztürk, 2005:172)

If it is assumed that the [Spec, TP] position is also resorted both for subjects and objects, then the object in (50b) may have undergone A-movement. However, such movement causes the derivation to crash due to Principle A and C effect. The object, which is an anaphor, stays unbound and the subject, which is an R-expression, is bound by the object. The grammaticality of the sentence proves just the opposite. One might argue that in (50b), the subject may have undergone A-movement instead of the object and the object may have undergone A-bar movement. Such an explanation to the derivation above seems to resolve the problem, however from my point of view; it causes problems in terms of the optional nature of arguments in (50). In this thesis, I will try to get rid of optionality in scrambling operations. Thus, arguing that the object moves to [Spec, TP] position in (50a) and leads to ungrammaticality due to the violation of the binding theory and the same object moves to CP domain instead of [Spec, TP] position in (50b) does not seem to be a viable explanation. This takes us back to the more canonical approach mentioned above, where [Spec, TP] is resorted only for subjects, rather than objects.

As illustrated section 1.2.2, case assignment in GB has been replaced with case checking in the Minimalist Program. Since Chomsky (1998), case checking has been done via the operation Agree, in which case-checking takes place between the probe and the goal and no movement is required. In this thesis, I will also assume that nominative case checking is realized via Agree, which indicates that the nominative cased subject does not move to [Spec, TP] to check its uninterpretable nominative case; rather it checks the feature in an in-situ probe-goal relation.

Another preliminary in the approach that will be presented here is that Turkish is an object-shift language. Object shift means that the accusative case-marked object obligatorily moves out of its VP internal base generated position (Collins and Thráinsson, 1996). Of the tests of object shift phenomenon in Turkish, I will present the adverb test here. Cinque (1999) presents evidence that certain adverbs occupy high positions in the tree structure while some others are low. Temürcü (2001) argues that adverbs with –CA suffix occupy a position higher than VP level while adverbs without the suffix occupy a VP internal position, like "*yavaş"* in (51) below.

(51) a. Ali kitab-ı yavaş oku-du.
Ali book-ACC slow read-Past
"Ali read the book slowly."

b. * Ali yavaş kitab-ı oku-du.
Ali slow book-ACC read-Past
"Ali read the book slowly."

(adapted from Temürcü, 2001:80)

The ungrammaticality of (51b) can be explained if we assume that the object had not left its base position. (51a) is grammatical because the accusative marked object has left its VP internal position. Since it is clear from the examples above, I assume that overt accusative case marked objects move to second [Spec, vP] position to check their uninterpretable accusative case feature. Thus, at the beginning of the derivation, the structure will be as follows for all sentences including an accusative case marked direct object.

(52) $[_{CP}\ [_{TP}\ [_{vP}\ \text{Object}_i\ [_{vP}\ \text{Subject}\ [_{VP}\ t_i\ ]]]]]$

Object shift is often associated with head-movement in the literature (Miyagawa 2001, 2003; Holmberg 1986; Ulutaş 2006). Thus, in this thesis, the idea that V head moves to T head will be adapted, which is the conclusion reached in Ulutaş (2006), Aygen (2000), and Zwart (2001) rather than Kural (1993) who argues that there is V-to-T-to-C movement in Turkish.

With respect to bare NPs functioning as objects in sentences, I follow Öztürk (2005) and thus assume that they undergo theme incorporation, and thus they always stay at their VP-internal base generated positions.

In this thesis, I will assume a movement-based approach (cf Öztürk, 2004, 2005) rather than a base-generated approach (Göksel, 2009). The argument in favor of a movement-based approach comes from weakcrossover (WCO) effects and binding relations. The WCO effect and binding condition in (53a) and (53b) can be explained under a movement-based approach, while it cannot under a base-generated approach.

(53) a. *pro$_i$ sekreter-i herkes-i$_i$ ara-dı

secretary everyone-ACC call-Past

"His$_i$ secretary called everyone$_i$."

b. Birbirleri-ni$_i$ adam-lar$_i$ DÜN gör-müş

each other-ACC man-PL yesterday see-Past

"The men saw each other yesterday."

(53a) exemplifies an example of WCO effect. The quantifier raises at LF to the CP domain for quantification and causes the derivation to crash due to Leftness condition illustrated in section 1.3.4. Under a base-generation approach, however, there is no reason for (53a) to be ungrammatical. Base-generation approach cannot explain the grammaticality of (53b), either. Under such an approach, (53b) should be ungrammatical since the anaphor c-commands the R-expression. Under a movement-based approach, the grammaticality of (53b) follows. Both the subject and the object move to the CP domain, but in their positions after they are reconstructed, which is obligatory for A-bar moved constituents, the subject can bind the object. Thus, movement-based approach will be adopted in this thesis.

2.3.2 Identificational Focus and Topic

As seen in the examples discussed so far, identificational focus affects how the structure is interpreted. In the paradigm (44)-(47), repeated as (54a) and (54b) below, it became clear that the existence of identificational vs informational focus in the structure seem to change the type of movement the object undergoes.

(54) a. *Birbirleri-ni$_i$ adam-lar t_i ara-dı.

each other-acc men-pl call-past-agr

"The men saw each other."

b. Birbirleri-ni$_i$ ADAM-LAR t_i ara-dı (kadınlar değil)]]

each other-acc men-pl call-past (women not)

"The men called each other, not the women"

When there is identificational focus, the object seems to have undergone A-bar movement, and when there is informational focus, it seems to have A-moved. Then, it is plausible to conclude that the identificationally focused element and the informationally focused element occupy different positions in the structure. The position held by the identificationally focused element must be a position above which there is no A-position whereas the position held by the informationally focused element must be a position above which there is an A-position. Thus, [Spec, FocP] is a logical candidate for identificational focus checking.

In Rizzi's (1997) model, the functional projection above FocP is TopP, which is an A-bar position. This is compatible with the relevant data in (53) and (54). The fact that any constituent in the preverbal area can have identificational focus does not necessarily mean that identificational focus does not trigger movement to its Spec. It may well interact with other features like topic, focus and EPP (cf. Miyagawa 2004; Özsoy, 2005). Thus, it is highly possible that identificational focus triggers overt movement to its Spec position by attracting the element that carries contrastive focus feature. (54b) above might have the following structure in (55).

(55) a. [$_{TopP}$ Birbirlerini$_j$ [$_{FocP}$ ADAMLAR$_i$ [$_{TP}$ [$_{vP}$ t_j [$_{vP}$ t_i [$_{VP}$ t_j]]]]]] (before reconstruction)

b. [$_{TopP}$ [$_{FocP}$ [$_{TP}$ [$_{vP}$ birbirlerini$_j$ [$_{vP}$ ADAMLAR [$_{VP}$ t_j]]]]]] (after reconstruction)

The subject in (55a), since it bears the identificational focus feature, is attracted by the Foc head to check its uninterpretable feature. The object in (55a) then undergoes A-bar movement to [Spec, TopP].

However, it should be noticed that this derivation cannot explain the grammaticality of the sentence. After reconstruction, as illustrated in (55b), the subject will be in its base generated position inside vP and the object will be in its A-moved position, in the higher Spec position of the vP. The object anaphor will be in a position that c-commands the subject. The object, which is an anaphor, stays unbound and the subject, which is a referential expression, will be bound. So, we would expect the derivation to crash due to Principle A and Principle C of the binding theory, contrary to the fact. The following section aims to present an answer to this problem, which I will continue after presenting one more piece of evidence indicating that identificational focus might trigger movement.

Another piece of evidence that identificational focus may be triggering movement to its spec comes from quantifiers' interaction in terms of scope. Mahajan (1997) argues that when the object is scrambled to pre-subject position, it leads to ambiguity with respect to the scope relations of the quantifiers.

(56) a. sab tiin ciize khariide ge

everyone three things buy_{FUT}

"Everyone will buy thee things."

(every>three)

b. tiin ciize sab khariide ge

three things everyone buy_{FUT}

"Everyone will buy thee things."

(three>all; all>three)

(Mahajan, 1997: 199)

In (56a), the universal quantifier in the subject position unambiguously takes scope over the numeral object quantifier. However, when the object is scrambled to sentence initial position as in (56b), either the subject takes scope over the object, or vice-versa. Adapting from Aoun & Li (1993), Mahajan (1997) gives (57) to explain the ambiguity in (56).

(57) The Scope Principle: a quantifier A may have scope over quantifier B iff A c-commands a member of the chain containing B.

(Aoun & Li 1993:11)

Following (57), the ambiguity in (56b) is explained. The object can take scope over the subject because it c-commands the subject at surface structure. The subject can take scope over the object because it c-commands the trace of the object.

Now, under the light of (57), let us consider Turkish examples in (58) and (59) similar to the ones given in Kornfilt (2005:168-169).

(58) Bir kitab-ı herkes oku-du.
a book-ACC everyone read-Past
"Everyone read a book."
(one>every)

(59) Bir kitab-ı HERKES oku-du.
a book-ACC EVERYONE read-Past
"Everyone read a book."
(every>one, one>every)

The universal quantifier, which is the subject in both (58) and (59), has informational focus in (58) while it has identificational focus in (59)[2]. Following (57), the unambiguity of (58) is explained. As discussed in section 2.3.1, the object quantifier has to undergo object-shift and the derivation will have the structure in (60) below.

(60) $[_{CP}\ [_{TP}\ [_{vP}$ bir kitab$ı_i$ $[_{vP}$ herkes $[_{VP}\ t_i$ okudu]]]]]

In (60), the object c-commands the subject at S-structure. However, there is no position in the structure where the subject c-commands the object or the trace of the object. It is important to note here that the trace of the object becomes invisible after

[2] Note that throughout the remainder of the thesis, identificational focus will be represented with capital letters, while informational focus will be referred to as the constituents in the immediate pre-verbal area at S-structure unless there is identificational focus in the sentence.

it undergoes object-shift, which is an A-movement. The unambiguity of (58) also indicates that the trace of the object becomes invisible, because we would otherwise expect to have ambiguity in (58) due to the subject c-commanding the trace of the object, which is not the case.

In (59), the quantifiers have ambiguous scope readings. If we assume that the subject in (59), which has identificational focus, does not move out of its vP-internal position, it becomes no different than (58) and we would have the unambiguous reading, which is contrary to the fact. Under that assumption, the ambiguous reading of (59) cannot be explained. However, if we assume that the subject undergoes movement out of its vP-internal position, the ambiguous reading of (59) can easily be explained. The focus feature is a good candidate to trigger such movement for the subject in (59). After movement, the subject c-commands the trace of the object, which also has to undergo movement[3]. Thus the derivation tentatively has the following structure in (61).

(61) $[_{TopP}$ bir kitabı$_i$ $[_{FocP}$ HERKES$_j$ $[_{TP}$ $[_{vP}$ t$_i$ $[_{vP}$ t$_j$ $[_{VP}$ t$_i$ okudu]]]]]]

Whether this derivation can really represent the data in Turkish will be extensively discussed in the following sections.

2.3.2.1 Proposal

In this section, I will present a proposal for the problem depicted above in terms of binding. Binding relation in (54b) must be explained, that is, the subject must move

[3] Although I assume that the object undergoes topicalization, I will not go into the details of this assumption since it will be discussed in detail in the following sections. For the sake of the discussion here, I will just assume that the object lands at [Spec, TopP].

to a position that can bind the object, which must therefore be an A-position – a potential candidate for such a position would be TP. However, notice that I assume, following Öztürk (2005), [Spec, TP] does not have to be filled. Then, how is the binding relation in (54b), which is repeated here as (62), achieved?

(62) Birbirleri-ni$_i$ ADAM-LAR t_i ara-dı (kadınlar değil)]]
each other-acc men-pl call-past (women not)
"The men called each other, not the women"

As seen in (62) the subject must undergo A-movement before landing at [Spec, FocP] so that the binding theory is satisfied. Based on the phrasal architecture that we assume the only available position for the subject to land is [Spec, TP], which is an A-position. Then, the next question to ask is what the motivation of this movement is. I will assume that when identificational focus attracts the subject carrying the same feature, EPP on T is activated and needs to be satisfied. One thing to be noted here is that assuming that [Spec, TP] does not have to be filled does not mean it can never be filled. It may interact with other features and need to be filled under certain conditions. This approach is similar to Miyagawa's (2004) account, where he argues that EPP on T works in tandem with focus feature. Thus, every time the subject moves for Focus it should stop at [Spec, TP], thus undergo A-movement to check the EPP feature, which gets activated due to identificational focus. The derivation of (62) above will be as in (63) below.

(63) a. [$_{TopP}$ Birbirlerini$_j$ [$_{FocP}$ ADAMLAR$_i$ [$_{TP}$ t_i [$_{vP}$ t_j [$_{vP}$ t_i [$_{VP}$ t_j görmüş]]]]]] (before reconstruction)

b. [$_{TopP}$ [$_{FocP}$ [$_{TP}$ ADAMLAR$_i$ [$_{vP}$ birbirlerini$_j$ [$_{vP}$ t$_i$ [$_{VP}$ t$_j$ görmüş]]]]]]

(after reconstruction)

The grammaticality of (62) can be explained by the derivation in (63a) above. After reconstruction as seen in (63b), the subject will be in [Spec, TP] and the object will be in [Spec, vP]. Thus, the subject can bind the anaphor and both Principle A and Principle C of the binding theory are satisfied. The catch here is that the antecedent has to be in an A-position at LF to be able to serve as a binder.

Now, let us take a look at the SOV order, where the object carries the identificational focus feature.

(64) Adam-lar BİRBİRLERİ-Nİ gör-müş.
men-pl each other-acc see-past-agr
"The men saw each other."

Following the proposal given above, I give the following derivation for (64).

(65) [$_{TopP}$ Adamlar$_i$ [$_{FocP}$ BİRBİRLERİNİ$_j$ [$_{TP}$ [$_{vP}$ t$_j$ [$_{vP}$ t$_i$ [$_{VP}$ t$_j$ görmüş]]]]]]

(65) above is also problematic. Under the light of the proposal above, we would expect (65) to be ungrammatical, contrary to the fact. Following Mahajan (1990), I assume that A-bar movement always reconstructs. Thus, both the subject and the object have to be reconstructed due to A-bar movement and their positions after reconstruction will be [Spec, vP] both for the subject and for the object, which will

violate Principle A and Principle C of the binding theory as the object will appear higher than the subject in the hierarchical structure.

Similar to the proposal put forth above for focus projections, I will argue that when Top head attracts the subject to check its feature, EPP on T head is activated and the subject has to first land at [Spec, TP] undergoing an A-movement to check the EPP and then move to [Spec, TopP] undergoing A-bar movement. The derivation then will be as in (66).

(66) a. $[_{TopP}$ Adamlar$_i$ $[_{FocP}$ BİRBİRLERİNİ$_j$ $[_{TP}$ t_i $[_{vP}$ t_j $[_{vP}$ t_i $[_{VP}$ t_j görmüş]]]]]] (before reconstruction)

b. $[_{TopP}$ $[_{FocP}$ $[_{TP}$ Adamlar$_i$ $[_{vP}$ BİRBİRLERİNİ$_j$ $[_{vP}$ t_i $[_{VP}$ t_j görmüş]]]]]] (after reconstruction)

After reconstruction, as in (66b), the subject will be in [Spec, TP] and the object will be in [Spec, vP]. The subject can bind the anaphor and both Principle A and Principle C of the binding theory are satisfied.

In the sense that it relates information structure to scrambling, this approach here is also compatible with Özsoy (2005), where she argues that topic feature of C percolates down to T and creates multiple specifier positions on the T head.

> Scrambling is motivated by [Topic] feature of C which can percolate to T, projecting multiple specifier positions on the T head. XPs bearing feature [topic] raise to SPEC, TP to satisfy the multiple EPP-feature of T. In this respect, [topic] differs from the feature [Focus] which does not have an EPP-feature and which checks its feature under long distance AGREE in a focus-in-situ language such as Turkish. In those cases in which [Topic] does not percolate to T-head, XP moves to SPEC, CP to check the [topic] feature of CP.
>
> (Özsoy, 2005:2)

Let us now take a look at the predictions of this proposal and see whether the proposal can confirm the outcomes of the relevant data.

2.3.2.2 Evidence from Topicalization

Topic[4], representing *given* information or what the sentence is about, is associated with the sentence initial position. Immediately preverbal position is associated with the *default focus* position and the postverbal area is associated with *backgrounded* information (Erguvanlı, 1984; Kornfilt 1999). It follows from logical assumption that any constituent that is focused cannot be interpreted as the topic of the sentence.

One prediction of the proposal put forth above is that any constituent to the left of the identificationally focused element has to be interpreted as the topic of the sentence. That is, if identificational focus requires overt movement into FocP then constituents which appear to its left should also be in higher A-bar positions, which we assume to be TopP here. This prediction is borne out by the data. In Turkish, whether a constituent is topic or not can be tested by using topic markers like –(y)sA[5]. When I use the term contrastive focus, I assume that the contrastively focused constituent is more prominent when compared to other constituents in the structure (Selkirk, 2002-2006, Gundel & Fretheim, 2003), that is, contrastively focused element carries that L+H* pitch accent. Semantically speaking, the contrastively focused constituent is supposed to be contrasted with other possible candidates in a closed set, or it has to be considered as unexpected for the hearer from the speaker's perpective (Zimmermann, 2007) The topic, on the other hand,

[4] Throughout the thesis from now on, constituents bearing the topic feature will be represented as underlined when there is special need to mark the Topic.

[5] I thank Meltem Kelepir for giving me the idea that whether a constituent is the topic or not can be tested by topic markers like –(y)sA in Turkish.

has to be distressed as mentioned above (Selkirk, 2006). With this methodology, we get the following grammaticality judgments.

(67) a. *ADAM-LAR$_i$ ise birbirleri-ni$_i$ gör-müş.]]
men-pl top marker each other-acc see-past-agr
"The men saw each other."

b. <u>Adam-lar$_i$</u> ise BİRBİRLERİ-Nİ$_i$ gör-müş-ler.]]
men-pl top marker each other-acc see-past-agr
"The men saw each other."

c. <u>Birbirleri-ni$_i$</u> ise ADAM-LAR t_i ara-dı (kadınlar değil)]]
each other-acc top marker men-pl call-past (women not)
"The men called each other, not the women."

The ungrammaticality of (67a) is because topic marker is used with a contrastively focused element, which can never be the topic. (67b) and (67c) indicate that the constituent to the left of the contrastively focused element is inferred as the topic.

There are two more tests related to topichood proposed by Erkü (1983) and cited from Özge (2003). One is *bahsederek* test, the other one is the appropriateness of the answer to a certain question. Özge (2003) provides the following to illustrated the point:

(68) Berke bahçe-ye çık-tı.

Berke garden-DAT go out-Past

"Berke went out to the garden.

(69) Berke nerede?

Berke where

"Where is Berke?"

(Özge, 2003:18-19)

In the above examples, (68) could be an appropriate answer to (69) and this suggests that the first constituent *Berke* is the topic. The other test is *bahsederek* test. If an the NP precedes *bahsederek*, it means that it functions as the topic of the sentence.

(70) Berke-den bahsed-erek o-nun bahçe-ye çık-tığ-ı-nı söyledin.

Berke-ABL talk aboutProg he-GEN garden-DAT go out-REL-Pos-ACC say-Past

"Talking about Berke, you said that he went out to the garden."

(Özge, 2003:19)

The grammaticality of (70) indicates that Berke in (68) is the topic. We could apply the same test to (67b), too, to test whether it is really the subject.

(71) Adam-lar-dan bahsed-erek birbirleri-ni

man-PL-ABL talk about-Prog each other-ACC

gördük-ler-i-ni söyle-di-n

see-REL-AGR-POS-ACC say-Past-2nd Per

"Talking about the men, you said that they saw each other."

The grammaticality of (71) shows that the first constituent *adamlar* in (67b) is the topic of the sentence. However, (71) cannot be an appropriate paraphrase of (67a), which shows that *ADAMLAR* in (67a) is not the topic.

Rizzi (1997) argues that there may be more than one topic position in a given structure. This is also borne out by the data in (72), where it is possible to use the topic marker mentioned above with the constituents in (72). The examples are adapted from Kural (1993), however there is no topic marker –ise in Kural's paper.

(72) a. [$_{TopP}$ Birbirleri-ni ise [$_{TopP}$ adam-lar [$_{FocP}$ DÜN ara-dı]]]

each other-acc top marker men-pl YESTERDAY call-past

"The men called each other YESTERDAY."

b. [$_{TopP}$ Birbirleri-ni [$_{TopP}$ adam-lar ise [$_{FocP}$ DÜN ara-dı]]]

each other-acc men-pl top marker YESTERDAY call-past

"The men called each other YESTERDAY."

(72a) and (72b) show that all the constituents to the left of the identificationally focused phrases can be interpreted as the topic of the sentence.

The thing to note here is that Rizzi (1997) assumes that there is a second functional TopP projection under FocP. However, we assume that there is not a TopP projection below FocP in Turkish as shown in (73) below by using the topicalization tests illustrated above.

(73) a. * [$_{FocP}$ ADAM-LAR$_i$ [$_{vP}$ birbirleri-ni$_i$ ise gör-müş-ler.]]
men-pl each other-acc top marker see-past-agr
"The men saw each other."

b. * [$_{FocP}$ ADAM-LAR-I$_i$ [$_{vP}$ kendileri$_i$ ise ele ver-miş]].
men-Pl-ACC themselves topic marker betray-Past
"The men betrayed themselves."

The ungrammaticality of (73a) and (73b) above indicates that the object in (73a) and the subject in (73b) cannot be topics since they cannot pass topicalization test, thus they do not occupy [Spec, TopP]. The subject in (73b) cannot move to [Spec, TP] since it does not have topic or contrastive focus feature, thus it stays in-situ in its vP-internal position.

Also, the constituents following contrastively focused phrase cannot be topics since they cannot pass the *bahsederek* test of Erkü (1983) as shown by the ungrammaticality of (74) below.

(74) *Birbirleri-nden bahsed-erek adam-lar-ın
each other-ABL talk about-Prog man-PL-GEN
gör-dük-ler-i-ni söyle-di-n.
see-REL-AGR-POSS-ACC say-PAST-AGR

(74) illustrates that the object cannot be the topic in (73a) since it cannot be used with *bahsederek* in (74). That is, in (73), the speaker does not talk about birbirlerini, otherwise, (74) would be perfectly grammatical, which is contrary to the fact.

2.3.2.3 Evidence from Reconstruction and Binding

The predictions of the proposal developed in section 2.3.2.1 on the topicalization of the constituent which occupy a surface position to the left of the identificationally focused element are justified on empirical grounds. Let us now take a look at the evidence from reconstruction and binding. The proposal predicts that when both the subject and the object are topicalized, we would expect the subject to bind the object. This follows from the fact that the subject, when it has topic feature, has to first land at [Spec, TP] to check the activated EPP feature and then move to [Spec, TopP]. (72) above from Kural (1993) also supports the idea here. The derivation of (72) is given below as (75).

(75) [$_{TopP}$ Birbirleri-ni$_j$ [$_{TopP}$ adam-lar$_i$ [$_{FocP}$ DÜN [$_{TP}$ t_i [$_{vP}$ t_j [$_{vP}$ t_i [$_{VP}$ t_j ara-dı.]]]]]]

After reconstruction, the subject, which is the topic, will be at [Spec, TP] and the object will be at [Spec, vP]. Thus, the subject can bind the object anaphor, leading the derivation to converge.

The proposal outlined above can also explain the cases where contrastively focused object preposing creates a binder for a subject anaphor. The object in (76) has identificational focus in that it has a more prominent pitch accent and is contrasted with other potential candidates that may have undergone the same action or it is considered to be unexpected from the speaker's point of view.

(76) [$_{FocP}$ ADAM-LAR-I [$_{vP}$ kendileri ele ver-miş]].
men-Pl-ACC themselves betray-Past
"The men betrayed themselves."

In (76), the subject can bind the subject anaphor, which indicates that it has undergone A-movement. The derivation of (76) in the light of the proposal above is as follows.

(77) [$_{FocP}$ ADAM-LAR-I$_j$ [$_{TP}$ [$_{vP}$ t$_j$ [$_{vP}$ kendileri [$_{VP}$ t$_j$ ele ver-miş.]]]]]]

In (77), the subject, since it does not have the identificational focus feature or topic feature, stays in-situ. The object, after checking the EPP of the *v* head, moves to [Spec, FocP] since it bears contrastive focus. After it reconstructs, the object can bind the subject in their vP internal positions.

The thing to note here is that the subject in (76) must stay in-situ, that is it moves neither to [Spec, TP] nor to CP domain. It does not need to move to [Spec,

TP] due to case as it checks its case via Agree. Furthermore, movement for EPP is not required either as EPP on T is not activated by either contrastive focus feature or topic feature. Theoretically it should be able to move to CP domain, for instance to [Spec, TopP], however as discussed above in (73) and (74), there is not a TopP projection under FocP in Turkish, therefore the subject in (76) stays in-situ.

Any analysis, explaining the grammaticality of certain structures, should be able to explain the ungrammaticality of ungrammatical structures too. Two such cases are given below in (78). Let us now see whether the proposal above can explain the ungrammaticality of the sentences below.

(78) a. * [$_{FocP}$ BİRBİRLERİ-Nİ$_i$ [$_{vP}$ adam-lar ara-dı]]

each other-acc men-pl call-past

"The men called each other, not the women"

b. * [$_{TopP}$ Kendileri [$_{FocP}$ ADAM-LAR-I ele ver-miş]].

themselves men-Pl-ACC betray-Past

"Themselves betrayed the men."

In (78a), we assume that the object is in [Spec, FocP] since it has contrastive focus. The subject stays in-situ and checks its case via Agree. After reconstruction, the object binds the subject at vP internal positions and this violates Principle A and Principle C. On the other hand, the subject in (78b) moves to [Spec, TopP] by first landing at [Spec, TP] as EPP is activated due to the topic feature. The object moves to [Spec, FocP] from its vP internal position. After reconstruction takes place, the subject is at [Spec, TP] and the object is at [Spec, vP], thus binding theory is

violated. The derivations of (78a) and (78b) are given in (79a) and (79b) below respectively.

(79) a. *[$_{FocP}$ BİRBİRLERİNİ$_j$ [$_{TP}$ [$_{vP}$ t$_j$ [$_{vP}$ adamlar [$_{VP}$ t$_j$ ele ver-miş.]]]]]]

b. *[$_{TopP}$ Kendileri$_i$ [$_{FocP}$ ADAMLARI$_j$ [$_{TP}$ t$_i$ [$_{vP}$ t$_j$ [$_{vP}$ t$_i$ [$_{VP}$ t$_j$ ele ver-miş.]]]]]

2.3.2.3.1 One Problematic Case

According to the proposal above, (80) would be expected to be ungrammatical.

(80) ? a. [$_{TopP}$ Adam-lar-ı [$_{FocP}$ KENDİLERİ ele ver-miş]].
men-Pl-ACC themselves betray-Past
"The men betrayed themselves."

b. [$_{TopP}$ Adamları$_j$ [$_{FocP}$ KENDİLERİ$_i$ [$_{TP}$ t$_i$ [$_{vP}$ t$_j$ [$_{vP}$ t$_i$ [$_{VP}$ t$_j$ ele ver-miş.]]]]]]

However, some native speakers of Turkish accept (80) as ungrammatical while some others accept it as ungrammatical. For the ones who get an ungrammatical reading, the explanation is as follows. After the topicalized and focused constituents reconstruct at LF, the subject must be at [Spec, TP] and the object must be at [Spec, vP] and this would violate binding theory, as the subject is an anaphor which needs

to be c-commanded by its antecedent. The derivation crashes at LF due to the violation of Principle A and C of the binding theory. The grammaticality of (80) for some speakers is what I do not have a solution for at the moment and leave for future research.

Thus, following from the assumptions and the data above, binding requirements must be satisfied at the level of LF, which makes the binding facts of Turkish compatible with the binding theory in general.

2.3.2.4 Evidence from Scope

Following Kelepir (1996, 2001), Kenelly (1997), Kural (1997) and Öztürk (2004, 2005), I assume that in Turkish, scope relations are determined by surface structure since it is a scope rigid language.

Furthermore, contra to Kelepir (2001) and following Öztürk (2004, 2005) I assume that negation is between TP and vP projections and quantifiers take scope over negation if they c-command negation or they take narrow scope with respect to negation if they are c-commanded by negation at S-structure. What is important here is that since I assume V-to-T movement (Ulutaş, 2006; Aygen, 2000; Zwart, 2001), we should expect any quantifier above TP level to take scope over negation and any constituent below this domain to take narrow scope. As the discussion proceeds, it will be clear that V-to-T raising is not a problem for the analysis here.

One prediction of the proposal is that any constituent that is contrastively focused must take scope over negation. This prediction is borne out by the following data. The object in (81) has identificatinal focus feature in that it is contrasted with bazıları or it is used as an rejection to a sentence like (81a) below.

(81) a. [$_{TopP}$ Ali [$_{FocP}$ bazı test-ler-e gir-me-di]]

Ali all test-Pl-DAT take-neg-past

"Ali did not take some tests."

b. [$_{TopP}$ Hayır, Ali [$_{FocP}$ BÜTÜN TEST-LER-E gir-me-di]] (bazılarına değil)

No, Ali all test-Pl-DAT take-neg-past (some not)

"No, Ali did not take all the tests."

(*neg>all, all>neg)

The subject in (81) undergoes topicalization by first moving to [Spec, TP] and then to TopP, the object moves to [Spec, FocP] from its [Spec, vP] position, thus it takes wide scope over negation as is predicted by the proposal. Note that this assumption is also similar to what Balogh (2006) suggests for Hungarian focus, where he argues that in Hungarian identificational focus takes scope, contrary to informational focus.

Let us see now what happens if we assume that scope relation between the universal quantifier and negation in (81) is established at LF. After it is reconstructed, the universal quantifier, which functions as the object, is in its vP-internal position, which means it is c-commanded by negation. Thus, we would expect negation to take scope over the universal quantifier, contrary to the fact. This also provides further support for assuming that surface structure determines scope relations in Turkish.

Similar to the examples from Kelepir (1999) is (82) below.

(82) [$_{TopP}$ Bütün çocuk-lar [$_{FocP}$ BEŞ TEST-E gir-me-di.]]

all child-Pl five test-DAT take-Neg-Past

"All children did not take five tests."

(all>five>neg, *neg>all>five)

The numeral quantifier in (82) above takes scope over negation since it c-commands the negation. Notice that the subject, which is a universal quantifier, also takes scope over negation since it occupies the [Spec, TopP]. Now, let us compare (82) with (83) below where the numeral quantifier takes scope below negation.

(83) [$_{TopP}$ Bütün çocuk-lar [$_{vP}$ beş test-e gir-me-di.]]

all child-Pl five test-DAT take-Neg-Past

"All children did not take five tests." (*five>neg, neg>five)

The only difference between (82) and (83) is identificational focus and informational focus on the object in that it represents new information rather than contrasting it with other members of the set. I will propose in the next section that informational focus does not trigger movement, so the object in (83) is inside vP, thus takes scope below negation. The relation between universal quantifier and negation when there is informational focus in the sentence will be discussed in section 2.3.3 below.

Another piece of evidence supported by the proposal is given in (84) below.

(84) [$_{FocP}$ O TEST-E [$_{vP}$ bütün çocuk-lar gir-me-di.]]

that test-DAT all child-Pl take-Neg-Past

"All children did not take that test."

(*all>neg, neg>all)

Since the object moves to [Spec, FocP] in (84), the subject stays in-situ, in [Spec, vP]. So, we would expect it to take scope below negation and this is borne out by the data in (84) above.

2.3.3 Informational Focus and Topic

The informational focus always falls on the constituent which occupies the immediately preverbal position in Turkish (Göksel & Özsoy, 2000) in an answer to a question like "What happened?" and most importantly it denotes new information. It cannot be predicted or understood in sentences uttered before. We have seen in section 2.3.2 that identificationally focused and informationally focused elements must occupy different positions. Also, above the position occupied by the informationally focused element, there must be an A-position to explain (53), repeated as (85) below. Thus, I will argue that informational focus does not trigger movement to [Spec, FocP]; rather it is checked via the operation Agree. Hence, (85a) is explained by the following the derivation in (85b).

(85) a. *<u>Birbirleri-ni$_i$</u> adam-lar t_i ara-dı.

each other-acc men-pl see-past-agr

"The men saw each other."

b. [$_{TopP}$ [$_{FocP}$ [$_{TP}$ [$_{vP}$ Birbirlerini$_j$ [$_{vP}$ adamlar [$_{VP}$ t_j ara-dı]]]]]]

The subject in (85) has the informational focus because it denotes new information; rather than contrasting it with other members of the set as in (54). Also, recall from Göksel & Özsoy (2000) that the constituent occupying the immediately pre-verbal position carry the informational focus feature. Prosodically, the subject carries H* pitch accent (Selkirk, 2002). Thus, the subject checks the Foc feature of the Foc head via Agree. Having object-shift phenomenon, the object in Turkish has to move to [Spec, vP] to check its case against the relevant head. Notice that this is an A-position, thus the object binds the subject and violates the binding theory. However, the grammatical (86) cannot be explained under these assumptions.

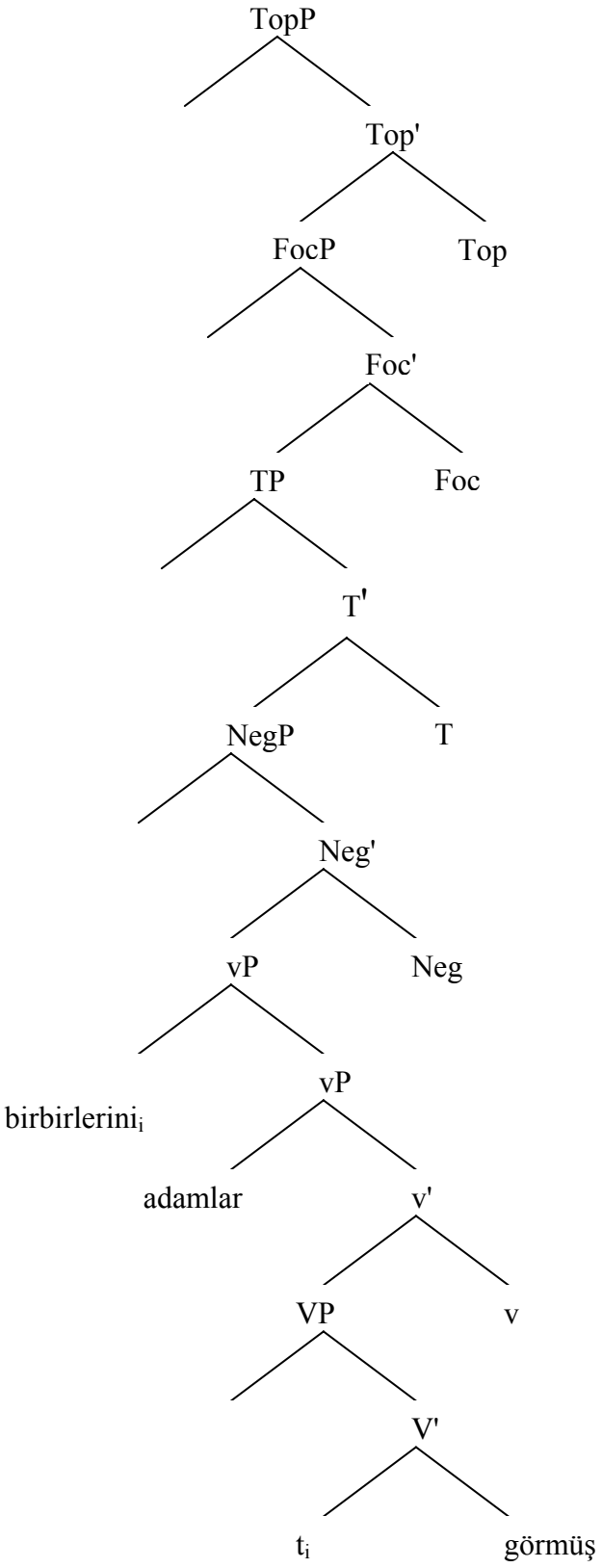
(86) Adam-lar birbirleri-ni gör-müş.
men-pl each other-acc see-past-agr
"The men saw each other."

If both the subject and the object are in their vP internal positions, the object has to follow the subject in the linear order, which is contrary to the fact. So, the subject must have been dislocated from its vP internal position and this position must be an A-position since the subject has to serve as the binder of the object here. [Spec, TP] is a good candidate as a landing site. However, we saw in section 2.3.1 that whether T head has EPP in Turkish is dependent on other topic and focus features. Notice that the first constituent in both (85) and (86) are interpreted as topics, which will be explained based on empirical data in section 2.3.3.1 below. Thus, I propose that for

the first constituents in structures with informational focus in Turkish, topicalization is obligatory.

Next question to ask then is why either the subject or the object has to be dislocated from their vP internal positions. My answer to this question will be as follows. When the object moves to second [Spec, vP] position, the subject and the object become equidistant from the Foc head, as they both occupy a Spec position within the same functional projection, i.e. vP, as shown in the tree structure (87).

(87)


TopP
Top'
FocP
Top
Foc'
TP
Foc
T'
NegP
T
Neg'
vP
Neg
vP
birbirlerini$_i$
adamlar
v'
VP
v
V'
t_i
görmüş

The Foc head checks its feature via Agree without movement. Thus, for the operation to work unambigously, there must be only one constituent within the functional projection and one of the elements, the one without informational focus feature, has to be dislocated.

The derivations for (85) and (86) are given below in (88) below.

(88) a. [$_{TopP}$ Birbirlerini$_j$ [$_{FocP}$ [$_{TP}$ [$_{vP}$ t_j [$_{vP}$ adamlar [$_{VP}$ t_j aradı]]]]]]

b. [$_{TopP}$ Adamlar$_i$ [$_{FocP}$ [$_{TP}$ t_i [$_{vP}$ birbirlerini$_j$ [$_{vP}$ t_i [$_{VP}$ t_j görmüş]]]]]]

What is important to note here is that the subject has to stop at [Spec, TP] because when the subject has Top feature, the EPP feature on T head gets activated, thus it can function as the binder of the object in (88b).

2.3.3.1 Evidence from Topicalization

The fact that the subject or the object in (88) move to [Spec, TopP] is also confirmed by the topicalization tests illustrated in section 2.3.2.2. Both the subject and the object are interpreted as topics in (89) and (90).

(89) <u>Adam-lar</u> ise birbirleri-ni gör-müş.
men-pl topic marker each other-acc see-past-agr
"The men saw each other."

(90) * Birbirleri-ni$_i$ ise adam-lar t_i gör-müş.

each other-acc topic marker men-pl see-past-agr

"The men saw each other."

Notice that the ungrammaticality of (90) is not due to topic markers, but due to the violation of Principle A and Principle C of the binding theory. The object anaphor reconstructs to its second spec position of the vP, thus becomes a binder for the R-expression, which functions as the subject and stays vP-internally due to having informational focus.

That these constituents are topics can also be tested by using tests *bahsederek* and question-answer tests from Erkü (1983). First, let us see how (86), repeated as (91) passes *bahsederek* test.

(91) Adam-lar birbirleri-ni gör-müş.

men-pl each other-acc see-past-agr

"The men saw each other."

(92) Adam-lar-dan bahsederek birbirleri-ni

man-PL-ABL talk about-PROG each other-ACC

gör-düğ-ü-nü söyle-di-n.

see-REL-POSS—ACC say-Past-2nd Person

The fact that (92) is grammatical indicates that the subject in (91) is really the topic. Also, from prosodic clues, notice that it is pronounced according to Féry and Samek-Lodovici's (2006) *Destress Given* Rule mentioned above.

The other test is using question-answer pairs for (91). Consider (93) below illustrating the case.

(93) Adam-lar ne yap-mış?
man-PL what-do-Past
What did the men do?

(94) Adam-lar birbirleri-ni gör-müş.
men-pl each other-acc see-past-agr
"The men saw each other."

As seen above, (94) is an appropriate answer for the question (93). It is the case here that the first constituent in (94) represents the given information in the preceding question. Thus, we can infer that it is the topic, as the topic also represents given information (Erguvanlı, 1984).

2.3.3.2 Evidence from Binding and Reconstruction

This proposal also makes correct predictions with respect to binding relations and reconstruction effects. Consider (95) and (96) below.

(95) [$_{TopP}$ Adam-lar-ı [$_{vP}$ birbirleri ele ver-miş.]]
men-ACC each other betray-Past
"Each other betrayed Ahmet and Ali."

(96) * [$_{TopP}$ Birbirleri [$_{vP}$ adam-lar-ı ele ver-miş. .]]

each other men-ACC betray-Past

"Ahmet and Ali betrayed each other."

In (95), the object can bind the subject anaphor. It first A-moves to second Spec position of vP due to object-shift and then moves to [Spec, TopP]. After reconstruction, which is obligatory, it can bind the subject from its vP-internal position. In (96), the object stays in its vP internal position and the subject moves to [Spec, TopP] by first stopping at [Spec, TP] since it has the topic feature and EPP on T gets activated. After reconstruction, the subject binds the R-expression and causes the derivation to crash due to violation of the binding principle.

2.3.3.3 Evidence from Adverb Placement

The fact that informationally focused subject or object stays in [Spec, vP] can be tested by using Cinque (1997)'s study on adverbs. Cinque (1997) divides adverbs into categories like high level adverbs such as *açıkçası* "frankly" and low level adverbs such as *hızlıca* "quickly". Then, any constituent that appears to the left of the TP level adverb "frankly" can be said to be high in the structure, otherwise it must be low.

(97) a. * [$_{TopP}$ Kitab-ı Ali açıkçası oku-yacak.]]

book-ACC Ali frankly read-Fut-Agr

"Frankly, Ali will read the book."

b. [$_{TopP}$ Kitab-ı açıkçası Ali oku-yacak.]]

book-ACC frankly Ali read-Fut-Agr

"Frankly, Ali will read the book."

The fact that the subject cannot occur to the left of the TP-level high adverb *açıkçası* "frankly" in (97a) indicates that the subject cannot be high in the structure. In (97b), where the high adverb comes before the subject shows that the subject is not high in the structure. Logically, as predicted by the proposal, [Spec, vP] is the position that hosts the subject in (97).

2.3.3.4 Evidence from Scope

Another prediction of the proposal is that any quantifier which is informationally focused has to be in the scope of negation. Let us now take a look at the relevant data to see if this prediction is borne out.

(98) [$_{TopP}$ O test-e [$_{vP}$ beş öğrenci gir-me-di]]

that test-DAT five student take-Neg-Past

"Five students didn't take that test." (neg > five,*five>neg)

The subject numeral quantifier in (98) takes narrow scope with respect to negation. This confirms the prediction above. Because the subject has informational focus in that it denotes new information in the immediately pre-verbal position. Thus, it checks the relevant feature via Agree, it stays in-situ. We expect it to be in the scope of negation, which is borne out by the data. Recall from what was proposed in the

previous sections that I assume the scope of negation with respect to a quantifier at S-structure.

In (99) below from Öztürk (2004, 2005), we would expect the same as (98), that is, the universal quantifier to take narrow scope with respect to negation.

(99) [$_{TopP}$ o test-e [$_{vP}$ bütün çocuk-lar gir-me-di.]]
that test-DAT all child-Pl take-Neg-Past
"All children did not take that test." (neg>all, *all>neg)
(Öztürk, 2005:177)

The subject in (99) carries informational focus feature. This can be tested by using it in a question-answer pair. Recall from previous sections that the constituent that carries the informational focus feature can be an answer to a regular wh-question since it provides new information. Thus, we would expect the subject to be an answer to question which includes a wh-word. (100) below shows that this prediction is borne out.

(100) O test-e ne ol-du?
that test-DAT what take-NEG-Past
"What happened to that test?"

Since the subject in (99) can answer (100), the subject in (100) can be said to carry the informational focus feature since it occupies the immediately pre-verbal position as an answer which provides new information. Thus, the universal quantifier, which

is the subject, takes narrow scope, indicating that it stays in-situ in its vP internal position. This bears out the prediction based on the proposal above.

(98) and (99) show that the subject takes narrow scope. We would also expect the informationally focused object to take narrow scope with respect to negation. Consider (101):

(101) a. [$_{TopP}$ Ali [$_{vP}$ bütün test-ler-e gir-me-di]]

Ali all test-Pl-DAT take-neg-past

"Ali did not take all the tests." (neg>all,* all>neg)

(Öztürk, 2005:171)

b. [$_{TopP}$ Ali [$_{vP}$ beş test-e gir-me-di.]]

Ali five test-DAT take-Neg-Past

"Ali did not take five tests." (Neg>five)

Both the universal quantifier and the numeral quantifier in (101) take narrow scope. They are informationally focused, which can be checked by the question-answer pair test above, thus they check their focus feature via in-situ Agree. Being c-commanded by the negation in their vP internal positions, they are in the scope of negation.

From the discussion so far, it must be clear that in a sentence that can be an answer to a question like "What happened", which shows that it is a sentence with informational focus, the prediction is that the subject must take scope over negation. Now, let us see whether this is really the case.

(102) Beş öğrenci o test-e gir-me-di.

five student that test take-NEG-Past

"Five students did not take that test."

(*neg>five, five>neg)

The subject in (102) is the topic of the sentence (see section 2.3.3.1). It takes scope over negation. Following Aygen (2002a), Ulutaş (2006), and Zwart (2001), we maintained that *V* raises to *T* in Turkish, picking the *Neg* head too. However, this is not a problem for the analysis here. In the analysis put forth so far, there is no constituent that occupy [Spec, TP] position at S-structure. The reason for this is because EPP on T is activated by other features and the subject has to further move after it checks the EPP by landing at [Spec, TP] first. Thus, the subject moves to the CP domain, [Spec, TopP] in (102) and it is predicted to take scope over negation, which is adjoined to *T* head since in its surface position, the subject will still be c-commanding negation.

If this is the case, we should also expect topicalized objects to take scope over negation, as shown in (103) below.

(103) Beş test-e Ali gir-me-di.

five test-DAT Ali take-NEG-Past

"Ali didn't take five tests."

(*neg>five, five>neg)

The topicalized object, what the whole proposition is about, takes scope over negation. At surface structure, the object is in the [Spec, TopP] and negation is adjoined to *T* head.

2.3.3.5 Evidence from WCO effects

In this section, we will take a look at WCO effects, whether the analysis can also explain the facts of WCO in Turkish. As discussed in section 1.4.2.4, (104) is an example of WCO effect in Turkish.

(104) *pro$_i$ sekreter-i herkes-i$_i$ ara-mış.
sectetary-POSS everone-ACC call-Past
"His$_i$ secretary called everyone$_i$."

Fronting the object to the preverbal position fixes the WCO effect observed, as in (105).

(105) <u>Herkes-i$_i$</u> pro$_i$ sekreter-i ara-mış.
everyone-ACC secretary-POSS call-Past
"His secretary called everyone."

The explanation of the proposal for this is as follows. The object first lands at the second Spec position of the vP and then moves to the [Spec, TopP]. The subject, which has informational focus, stays in its vP-internal position. If this is so, (105) should answer the question in (106).

(106) Herkes-i kim ara-mış?

everyone-ACC who call-Past

"Who called everyone?"

The object in (106) represents given information and it is not stressed. The subject provides new information, thus it has informational focus.

2.3.4 Double-object Constructions

After looking at monotransitive verbs, now I want to focus on ditransitive verbs, which require double-objects, in order to see whether the analysis so far can make correct predictions with respect to these structures. The first thing to look at here is whether indirect objects, which have dative case in Turkish, move out of the vP domain similar to direct objects carrying accusative case. To determine this, we could use the adverb placement test that was also used for DOs in section 2.3.1. Consider (107) below:

(107) a. Ahmet kitab-ı Ayşe-ye ver-miş.

Ahmet book-ACC Ayşe-DAT give-Past

"Ahmet gave the book to Ayşe."

b. Ahmet kitab-ı Ayşe-ye yavaş ver-miş.

Ahmet book-ACC Ayşe-DAT slow give-Past

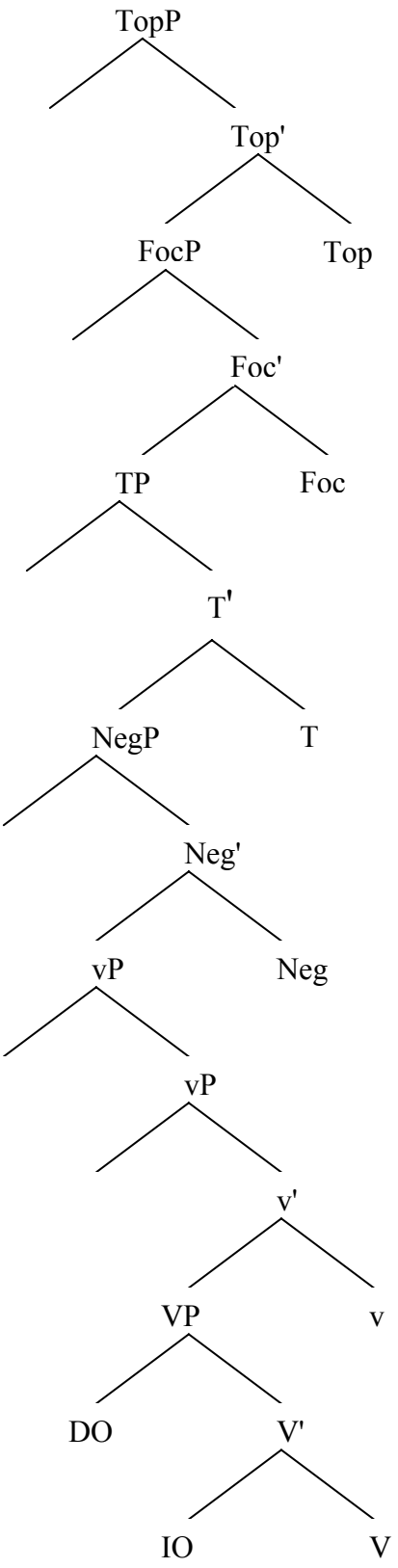
"Ahmet gave the book to Ayşe slowly."

c. *Ahmet kitab-ı yavaş Ayşe-ye ver-miş.
Ahmet book-ACC slow Ayşe-DAT give-Past
"Ahmet gave the book to Ayşe slowly."

As previously noted in section 2.3.1, the adverb "*yavaş*" is a low level adverb, that is, it must be attached to the VP domain. If, then, we assume that the IO does not move out of VP, we would expect (107b) to be grammatical, which is not the case. Contrary to (107c), (107b) is grammatical, which indicates that the IO precedes a VP-adjoined adverb. Thus, we could assume that the IO also moves out of its base-generated position.

As for the base generated ordering of DO and IO, I assume Kornfilt (2003) and as shown in the following tree structure in (108), DOs are base-generated higher than IOs VP-internally.

(108)



However, as we will see later in this thesis, this base-generated ordering of DOs and IOs with respect to each other will not be of great importance as the discussion proceeds.

(107) above shows that IOs move out of VP. If they move out of their VP-internal base-generated position, next question to ask is about the type of movement they undergo. WCO effects may provide us reliable insights about this. For instance, (109a) below is an instance of WCO effect, which takes place at the level of LF when the IO, which is a universal quantifier, crosses over the DO, which involves a co-indexed pro. Fronting the IO to the pre-DO area, however, overrides the weak-crossover effect as shown in (109a) and (109b).

(109) a. *Ahmet pro_i sekreterini $herkese_i$ tanıttı.
Ahmet secretary-agr-ACC everyone-DAT introduce-Past
"Ahmet introduced $everyone_i$ his_i secretary."

b. Ahmet $herkese_i$ pro_i sekreterini tanıttı.
Ahmet everyone-DAT secretary-agr-ACC introduce-Past
"Ahmet introduced $everyone_i$ his_i secretary."

This indicates that preposing the IO to the front of the DO creates A-movement effects so that the lower trace of IO is no longer visible. Note here we assume that overt movement for objects bearing the accusative suffix is also obligatory in Turkish. Thus, (109) also presents evidence to show that IO also moves out of VP domain since it can precede the overtly moved accusative DO in an A-position.

Now, let us see what kind of movement IOs undergo. I first would like to take a look at the interaction of the subject with the IO in terms of binding.

(110) * Kendi-ne içki-yi Ahmet hazırla-mış.
self-DAT drink-ACC Ahmet prepare-Past
"Intended meaning: Ahmet prepared the drink for himself"

(111) * İçki-yi kendi-ne Ahmet hazırla-mış.
drink-ACC self-DAT Ahmet prepare-Past
"Intended meaning: Ahmet prepared the drink for himself"

The ungrammaticality of both (110) and (111) can be explained in the following way. The subject has informational focus, denoting new information. Whether it has informational focus can be tested by using the tests so far, which need not be illustrated in this case again. According to what was put forth in the previous section, the subject has to stay in its vP-internal position. Obviously, the ungrammaticality of (110) and (111) above is due to Principle A and Principle C violation. Recall that based on the evidence from WCO effects, we assume that the IO undergoes A-movement. Its position is higher than the subject with informational focus which stays vP-internal.

What are the higher positions than the subject in the hierarchical structure? Recall that for a node to have multiple specifiers is theoretically possible and has also been assumed for the proposal so far (Chomsky, 1995) for the checking of accusative case. Thus, we could assume that vP node can have more than two specifiers, one is for the subject, the second one is for the DO, which has overt

accusative case, and the last one here is for the IO, which has dative case. What may be the motivation for this movement? Checking of the dative case is a good possibility. Thus, similar to accusative case, we could consider that checking of the dative case also takes place under a spec-head relation between the NP and the v-head (Larson, 1988; Hornstein, N., Nunes, J. & Grohman, K. K., 2005).

Notice that in (110) and (111), the reason why the subject cannot bind the IO is because the subject has the informational focus, which keeps it vP-internally. Thus, it follows from the assumptions so far that when the subject is contrastively focused, we would expect the sentence to be grammatical, as is shown in (112) below.

(112) Q: İçki-yi kendi-ne Hasan mi hazırla-mış?
Drink-ACC himself-DAT Hasan Q Particle prepare-Past
"Did Hasan prepare the drink for himself?"

A: a. Hayır, <u>kendi-ne$_i$</u> <u>içki-yi</u> AHMET$_i$ hazırla-mış. (Hasan değil)
no self-DAT drink-ACC Ahmet prepare-Past (Hasan not)
"No, Ahmet prepared the drink for himself, not Hasan"

b. Hayır, <u>içki-yi</u> <u>kendi-ne$_i$</u> AHMET$_i$ hazırla-mış. (Hasan değil)
no drink-ACC self-DAT Ahmet prepare-Past (Hasan not)
"No, Ahmet prepared the drink for himself, not Hasan"

In (112) above, the subject has contrastive focus, which activates the EPP on T. The DO and the IO are topicalized. Thus, the subject first moves to [Spec, TP] and then

to [Spec, FocP]. After reconstruction, as the subject would be at [Spec, TP], it can serve as the binder of the IO, which has to be in [Spec, vP] after reconstruction.

Another case where the subject can bind the IO would then be expected to be when the subject is topicalized, since topicalization of the subject also activates the EPP. This is illustrated in (113) below.

(113) Kendi-ne Ahmet her akşam bir içki hazırla-r.[6]
self-DAT Ahmet every night a drink prepare-AOR
"Ahmet prepared a drink for himself."
(Kornfilt, 2005:170)

After reconstruction in (113), the subject lands at [Spec, TP] and the IO lands at [Spec, vP], thus the subject binds the IO, which is adequate enough evidence to explain the grammaticality of (113).

It is important here to note that although *Ahmet* is the second constituent, it can be interpreted as one of the topics of the sentence. This can be tested by using the aforementioned topic marker "*ise"* with the subject, as seen in (114).

(114) Kendi-ne Ahmet ise her akşam bir içki hazırla-r.
self-DAT Ahmet topic m every evening a drink prepare-Aorist
"Ahmet prepared a drink for himself."

[6] Note here that Kornfilt (2005) considers this sentence as ungrammatical or unacceptable. To me and my informants, the sentence is perfectly grammatical when the subject is interpreted as the topic and the DO has the informational focus although whether the DO has identificational focus or informational focus is irrelevant to the discussion here.

Another test would be to use Erkü's (1983) *bahsederek* test, which was explained previously.

(115) Ahmet-ten bahsed-erek kendi-ne her akşam bir içki
Ahmet-ABL talk about-PROG himself-DAT every evening a drink
hazırla-dığ-ı-nı söyle-di-n.
prepare-REL-POSS-ACC say-Past-Agr
"Talking about Ahmet, you said that he prepared something to drink for himself every night."

That (113) can be paraphrased as in (115) with a grammatical outcome indicates that *Ahmet* functions as the topic of the sentence, which is the case in (115) above.

The picture so far tells us that the IO A-moves for case checking to a position higher than the subject in [Spec, vP] position. However, there is one more constituent in that area, namely the direct object. What I would like to seek at this point is where the IO moves with respect to the DO, higher or lower than it. For this, I will look at binding and WCO data. Let us begin with binding data:

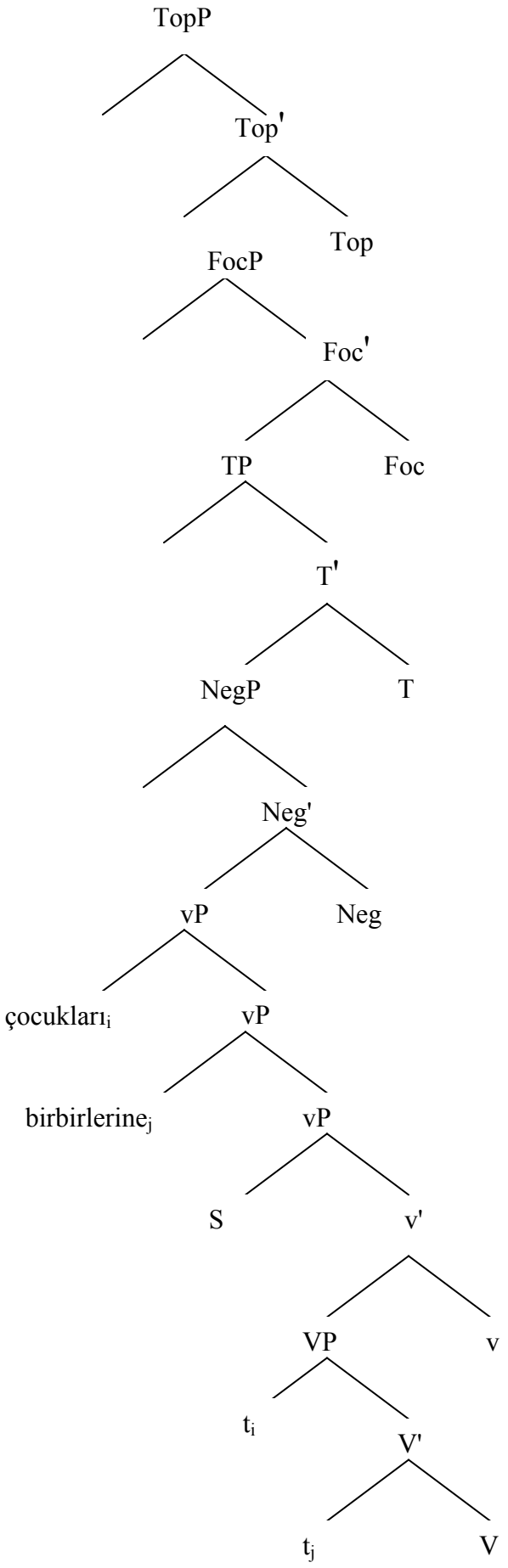
(116) Adam çocuk-lar-ı$_i$ birbirleri-ne$_i$ tanıt-tı.
man child-PL-ACC each other-DAT introduce-Past
"The man introduced children to each other."

In (116), the DO seems to serve as the binder of the IO since the sentence is grammatical. This shows that the DO moves to a higher [Spec, vP] position, namely the third [Spec, vP] position, to check its uninterpretable accusative case feature.

This leaves us with the fact that the IO moves before the DO to the second [Spec, vP]. The relevant derivation of the DO and the IO[7] is given in the tree structure in (117) below.

[7] Since where the subject resides in this example is not important, I will not show the subject in the tree structure.

(117)

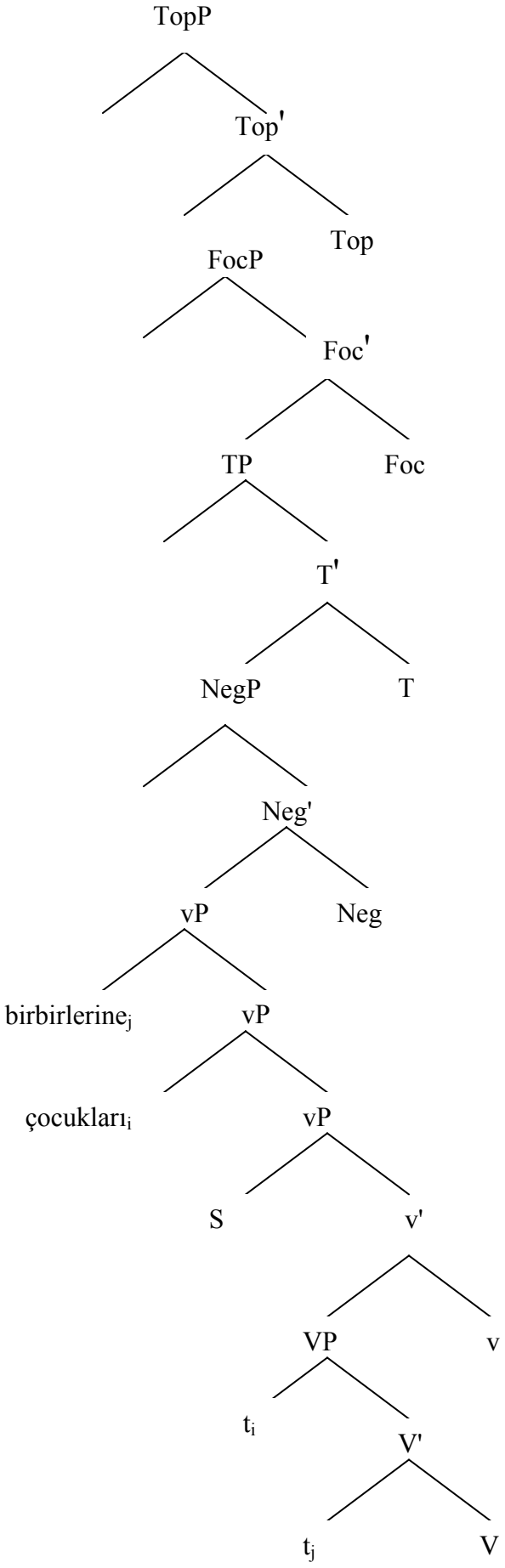

TopP
Top'
Top
FocP
Foc'
TP
Foc
T'
NegP
T
Neg'
vP
Neg
çocukları$_i$
vP
birbirlerine$_j$
vP
S
v'
VP
v
t_i
V'
t_j
V

However, it is of vital importance to note here that the derivation depicted in (117) cannot exhaust all the possibilities. Now, consider (118) below:

(118) *Adam birbirleri-ne$_i$ çocuk-lar-ı$_i$ tanıt-tı.
man each other-DAT child-PL-ACC introduce-Past
"Intended meaning: The man introduced children$_i$ to each other$_i$."

If we assume the same derivation in (117) for (118), the ungrammaticality of (118) cannot be explained. Under (117) the IO moves to the [Spec, vP] position below the DO to check its case and we would expect the IO to be bound by the DO, contrary to the fact. However, if we assume that the IO A-moves to the third spec position of the v-head, the ungrammaticality in (118) is explained. The IO c-commands the DO from an A-position and thus violates Principle A and Principle C. Thus, either the DO or the IO can move first. This derivation is given in (119) below.

(119)


TopP
Top'
Top
FocP
Foc'
TP
Foc
T'
NegP
T
Neg'
vP
Neg
birbirlerine$_j$
vP
çocukları$_i$
vP
S
v'
VP
v
t_i
V'
t_j
V

The question that arises at this point is this: Why does the same IO move to the second [Spec, vP] in (116) while it moves to third [Spec, vP] in (118)? The answer to this question is not a crystal clear one but is as follows. There is evidence that this is really the case. Compare (120) below with (116) above.

(120) Adam çocuk-lar-a_i birbirleri-ni_i tanıt-tı.
man child-PL-DAT each other-ACC introduce-Past
"The man introduced children to each other."
(IO>DO)

The difference between (116) and (120) is that the antecedents and the anaphors have different cases. The grammaticality of (120) shows that the IO moves above DO for case checking. However, this is not borne out if the linear order of the IO and the DO is changed, as in (121).

(121) *Adam birbirleri-ni_i çocuk-lar-a_i tanıt-tı.
man each other-ACC child-PL-DAT introduce-Past
"Intended meaning: The man introduced children to each other."
(DO>IO)

(121) above shows just the opposite of (120) although the only difference between them is the cases of the arguments. In (121), the DO moves to highest [Spec, vP] while in (120) the IO moves to the highest [Spec, vP] position. This non-uniform analysis to the movement of DOs and IOs is also witnessed by WCO effects. Now,

compare the paradigm in (122) with the one in (123)[8] . The order in parentheses reflects the order of IO and DO in the case checking area after reconstruction, namely [Spec, vP]. The one that precedes the other is higher in the structure.

(122) a. Ahmet herkes-e$_i$ pro$_i$ sekreter-i-ni göster-di.
Ahmet everyone-DAT secretary-ACC show-Past
"Ahmet introduced his$_i$ secretary to everyone$_i$
(IO>DO)

b. *Ahmet pro$_i$ sekreterini herkese$_i$ göster-di. (DO>IO)

c. Herkese$_i$ Ahmet pro$_i$ sekreterini göster-di. (IO>DO)

d. Herkese$_i$ pro$_i$ sekreterini Ahmet göster-di. (IO>DO)

e. pro$_i$ sekreterini herkese$_i$ Ahmet göster-di. (IO>DO)

f. *pro$_i$ sekreterini Ahmet herkese$_i$ göster-di. (DO>IO)

(123) a. Ahmet herkes-i$_i$ pro$_i$ sekreter-i-ne$_i$ göster-di.
Ahmet everyone-ACC secretary-DAT show-Past
"Ahmet introduced everyone$_i$ his$_i$ secretary."
(DO<IO)

b. *Ahmet pro$_i$ sekreterine herkesi$_i$ gösterdi. (IO<DO)

c. Herkesi$_i$ Ahmet pro$_i$ sekreterine gösterdi. (DO>IO)

d. Herkesi$_i$ pro$_i$ sekreterine Ahmet gösterdi. (DO>IO)

e. pro$_i$ sekreterine herkesi$_i$ Ahmet gösterdi. (DO>IO)

f. *pro$_i$ sekreterine Ahmet herkesi$_i$ gösterdi. . (IO<DO)

[8] The position of the subject in the structure is irrelevant for the discussion here.

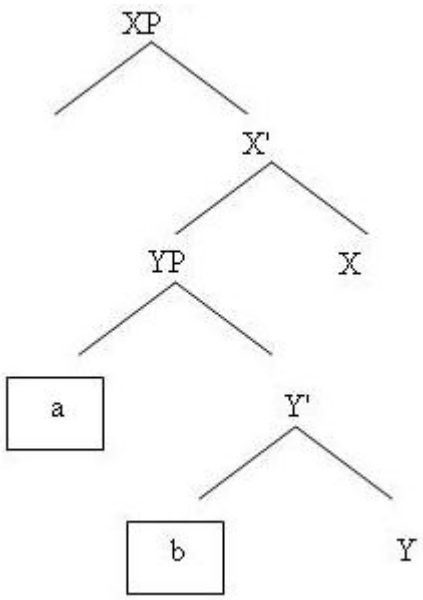
As can be seen from (122) and (123), it does not seem to be possible to propose that there is one fixed position for DO and IO in their case checking domains. The IO and DO are above each other in very similar constructions. Thus, the conclusion to be reached here is that they can move to spec positions of vP in any order[9]. This is compatible both with the paradigm in (122) and (123) and the idea that they must A-move to a position above the subject.

Recall from section 1.4.2.4 that Öztürk (2007) argues there are two positions for the IO, one of which is locative goal below the DO, the other one is possessive goal above the DO. Such a proposal seems to support the argument here in that we also argue that the IO can move to a higher or lower position than the DO. However, a closer look reveals just the opposite. Because assuming the order depicted in Öztürk (2007) makes us accept that the IO in (116) must have moved to Öztürk's (2007) locative goal position. Also this leads us to think that the IO in (118) must have moved to Öztürk's (2007) possessive goal position. Such a point of view would be excellent if the IOs in (116) and (118) were different from each other, representing possessive goal and locative goal respectively. Nonetheless, they are completely the same constituents. Thus claiming that the same IO moves to a locative goal position in (116) and it moves to a possessive goal position in (118) does not seem quite logical. What is notable is that there may still be two positions for the IO, but when the IO moves to which position seems to be an enigma for the time being. The fact that this is so is shown by the paradigms in (122) and (123) above.

[9] Note here that this assumption is compatible with Anagnostopoulou (2005) where he argues for Greek that both orders of DO>se-PP and se-PP>DO may be base-generated. See Anagnostopoulou (2005) for further discussion.

The conclusion above makes sense, but it is does not seem unproblematic.[10] In the hierarchical structure, one of the arguments must be higher than the other one, in our case; the DO is base-generated higher than the IO. If this is so, we would expect either of the movements to violate locality. However, we should keep in mind here that according to Chomsky (1995), two spec positions of the same functional head are considered to be equidistant from the higher spec of another functional projection, as exemplified in (124). In (124), both (a) and (b) are equidistant from the spec position of XP since they both occupy [Spec, YP].Thus, this approach does not cast doubt on locality.

(124)



One last thing to note here is that base-generated ordering of DO and IO is not crucial under this approach since both the DO, which has the overt accusative case

[10] One might argue that it is possible to assume Richards' (1997) tucking in condition. However, that is not relevant for the discussion here. Because in tuck-in, arguments must start off in spec positions of different XPs, contrary to the case here. In this case, the arguments start off in the spec position of the same functional projection.

marking, and the IO, which has the dative case marking, have to move to spec positions of vP, which is an instance of A-movement. That is why where they are base-generated is not important. When they move for case checking, their traces at their base-generated positions within the lexical VP domain become invisible for reconstruction purposes. Thus, the analysis here for double-object constructions might indicate that their base-generated position can be either position, which leads us to the idea that there is no fixed hierarchy between DO and IO.

The idea depicted in this section is similar to Miyagawa's (1996) proposal related to double-objects in Japanese. He argues that VP-internal word order permutations arise from different base-generated structures, indicating that different base-generated orders are possible. Note that Miyagawa's (1996) analysis does not cast doubt to a movement-based approach in this thesis since he also argues that movement does occur in those constructions for independent reasons which need not be discussed here.

2.3.5 Conclusion & Remarks

The proposal depicted above relates topic and focus to scrambling. It is also consistent both with Miyagawa's (2004) and Özsoy's (2005) analyses. As discussed in detail earlier, Miyagawa (2004) argues that the EPP works in tandem with focus and focus percolates down to T. Also, Özsoy (2005) argues that topic percolates down to T. In both analyses, the phenomenon of scrambling is not free from information structure. In my analysis, when the topic and the focus features are associated with the subject, the T head has the EPP feature. This is not different from Karimi's (2003) proposal for focus movement, where she argues that the

features of the moving categories rather than the heads plays an important role in triggering movement as summarized in section 1.3.6. In my analysis, similar to Karimi (2003a), the features of the moving constituents are important in triggering movement. Only when the subject, which is the moving category here, has topic or identificational focus features does it move out of its base-generated position.

The basic tenets of the proposal are summarized below:

- Identificational focus triggers overt movement and attracts the element which has contrastive focus.
- Informational focus is always checked via Agree, it does not trigger movement.
- Whenever there is informational focus in the sentence, topicalization is obligatory. (TopP is over FocP)
- Turkish is an object-shift language. The object moves to [Spec, vP] to check its case. The thing to note here is that object shift phenomenon is valid only for specific NPs, not for bare NPs functioning as objects.
- When the subject is topicalized or contrastively focused, it has to first land at [Spec, TP] to check the EPP on T head when the topicalization and focusing are established between the subject and the relevant head.
- In the light of the discussion so far, this chapter provides support for Kural's (1993) analysis that scrambling is always A-bar movement. In the current analysis, scrambling is always triggered by information structure and the constituents land in the CP domain when they are scrambled. Note here that the movement of the object to [Spec, vP] and movement of the subject to [Spec, TP] while it moves to the spec position of the Foc head or Top head

cannot be seen as A-scrambling. Those movements are for syntactic purposes, namely for case checking and EPP.

2.4 Long-Distance Scrambling

Apart from clause-internal scrambling, Turkish also displays examples of long-distance scrambling. In the literature on long-distance scrambling, it is seen as involving A-bar movement rather than A-movement (Kural, 1997; Kornfilt, 2005). In this section, I will first review the literature on leftward long-distance scrambling and then take a look at the facts of Turkish long-distance scrambling.

2.4.1 Background on Long-distance Scrambling

Extensively discussing long-distance scrambling, Mahajan (1990) argues that in addition to short-distance scrambling, Hindi also exhibits long-distance scrambling, illustrated in (125).

(125) a. Mohan-ko raam socaa [$_{CP}$ ki siitaa-ne t dekhaa thaa]
Mohan (EDO) Ram (SUB) thought that Sita (ESUB) seen be-pst
(lit.) Mohan, Ram thought that Sita had seen.

b. Raam-ne mohan-ko socaa [$_{CP}$ ki siitaa-ne t dekhaa thaa]
Ram (SUB) Mohan (EDO) thought that Sita (ESUB) seen be-pst
(=125a)

(Mahajan, 1990:38)

He presents evidence from weak crossover effects and binding relations to support his argument that long-distance scrambling is A-bar movement. For instance in (126) below, according to Gurtu (1985), as cited in Mahajan (1990), movement of the wh-phrase to C is obligatory in Hindi. Note that this movement causes WCO effect.

(126) * kis-ko$_i$ uskii$_i$ bahin-ne socaa [$_{CP}$ ki raam-ne t dekhaa thaa]
Who(EDO) his sister(SUB) thought that Ram (ESUB) seen be-pst
* Who$_i$ did his$_i$ sister think that Ram had seen?

(Mahajan, 1990:39)

WCO effect can also be seen even when the wh-phrase appears between the matrix subject and the matrix verb. In (127), for example, the wh-phrase is between the matrix subject and the matrix verb, but the derivation still induces weak crossover effects.

(127) * raam-ne kOn saa aadnii$_i$ uskii$_i$ bahin se kahaa [$_{CP}$ (ki) t
Ram (SUB) which man (EDO) his sister to told (that)
aaya thaa
come-perf-m be-pst-m
(lit.) Which man did Ram tell his father had come?

(Mahajan, 1990:40)

(127) illustrates WCO effects with a wh-phrase. The same violation also occurs with the movement of a quantifier, which is shown in (128) below.

(128) sab-ko$_i$ uskii$_i$ bahin-ne socaa [$_{CP}$ (ki) raam-ne t dekhaa thaa]

everyone(EDO) his sister(SUB) thought that Ram (ESUB) seen be-pst

"His sister thought that Ram saw everyone."

(Mahajan, 1990:41)

What Mahajan concludes from the examples above is that the wh-phrase and (126) and (127) and the quantifier in (128) are in A-bar positions since they cannot bind the pronouns in matrix clauses and they induce WCO effects.

Mahajan (1990) notes (129) below is grammatical, which conflicts with the proposal that long-distance scrambling is A-bar movement.

(129) kis-ko$_i$/sab-ko$_i$ raam-ne socaa ki uskii$_i$ bahin-ne t dekhaa thaa

Who/everyone(EDO) Ram(SUB) thought that his sister(ESUB) seen be-past

"Who$_i$ did Ram think that his$_i$ sister had seen?

"Everyone$_i$, Ram thought that his$_i$ sister had seen.

(Mahajan, 1990:42)

He further argues that (129) supports his argument that clause-internal scrambling can be A-movement, which was explained in section 1.3.4. The wh-phrase or the quantifier first undergoes A-movement clause-internally where it can bind the embedded subject and then A-bar movement to matrix CP domain.

Mahajan (1990) further supports his analysis on long-distance scrambling by giving evidence from binding relations. In (130b), for instance, the fronted NP fails to bind the reflexive functioning as the subject of the matrix clause.

(130) a. * apnii bahin-ne socaa ki raam-ne mohan-ko dekhaa
self's sister (SUB) thought that Ram (ESUB) Mohan (EDO) saw
(lit.) Self's sister thought that Ram saw Mohan.

b. * mohan-ko$_i$ apnii$_i$ bahin-ne socaa ki raam-ne t dekhaa
Mohan (EDO) self's sister (SUB) thought that Ram (ESUB) saw
(lit.) Mohan$_i$, self$_i$'s sister thought that Ram saw.

(Mahajan, 1990:44)

The fact that (130) is ungrammatical shows that the fronted NP cannot bind the pronoun, so it must have moved to a position from where creating a new binder is impossible, namely an A-bar position. Thus, (130) is further evidence that long-distance scrambling is A-bar movement.

2.4.2 Turkish long-distance scrambling

Turkish exhibits the same type of movement like Hindi examples taken from Mahajan (1990). Özsoy (2005) presents evidence that long-distance scrambling in Turkish also displays A-bar properties. She argues for the difference between two kinds of long-distance scrambling, one out of infinitival clauses and one out of finite clauses. More specifically, she claims that scrambling out of infinitival clauses creates a binder for an anaphor in the matrix clause. In (131) below, she gives examples of this type.

(131) a. *[$_{TP}$ Aylin [$_{TdefP}$ birbirleri$_i$-nin anne-ler-i-ne [$_{VP}$ onlar$_i$-i

each other-GEN mother-PL-3POSS-DAT they-ACC

tanistir-mak]] iste-di.

introduce-INF want-PAST

'Aylin wanted to introduce to each other's mother them.'

b. [$_{TP}$ Aylin onlar$_i$-i [$_{TdefP}$ birbirleri$_i$-nin anne-ler-i-ne [$_{VP}$ t$_i$

they-ACC each other-GEN mother-PL-3POSS-DAT

tanistir-mak]] iste-di.

introduce-INF want-PAST

(Özsoy, 2005:9)

Scrambling the object out of an infinitival clause saves the structure and thus (131b) is grammatical while (131a) is out. As for scrambling out of finite clauses, Özsoy (2005) considers it as showing characteristics of A-bar movement. She further presents evidence from binding facts.

(132) a. [$_{TP}$ Kendi anne-si [$_{vP}$ Berna-ya [$_{CP}$ [$_{TP}$ Zeynep-in [$_{vP}$ Aylin-le

Self mother-3POSS –DAT -GEN -COM

konus-tuğ-u-nu] söyle-di]]]]

speak-NOM-3POSS-ACC say-PAST

b. ?*[Aylin$_i$-le [$_{TP}$ kendi$_i$ anne-si [$_{vP}$ Berna-ya [$_{CP}$ [$_{TP}$ Zeynep-in [$_{vP}$ t

-COM self mother-3POSS –DAT -GEN

konus-tuğ-u-nu] söyle-di]]]]

speak-NOM-3POSS-ACC say-PAST

(Özsoy, 2005:9-10)

In (132), the constituent moving to s-initial position does not create a binder for the subject of the matrix clause, thus it displays A-bar properties. Similarly, in (133) below, Özsoy (2005) argues that long-distance scrambling does not cause Principle C effects.

(133) a. [Aylin$_i$ [Zeynep-e [Berna-nın o$_i$-nu beğen-diğ-i-ni]

-DAT -GEN 3SG-ACC like-NOM-3POSS-ACC

söyle- miş.

say-HS

'Aylin has reportedly told Zeynep that Berna liked that book.'

b. *O$_i$-nu [Aylin$_i$ [Zeynep-e [Berna-nın t beğen-diğ-i-ni]

3SG-ACC -DAT -GEN like-NOM-3POSS-ACC

söyle- miş.

say-HS

(Özsoy, 2005:10)

The data presented in Özsoy (2005) convincingly suggest that long-distance scrambling in Turkish seems to be movement to an A-bar position and displays the characteristics of A-bar movement.

2.4.3 Further evidence for A-bar scrambling from WCO effects and Binding

The claim that long-distance scrambling is also movement to an A-bar position will also be supported by the Turkish data in this section.

2.4.3.1 WCO effects

(134) and (135) below, similar to Hindi example in (126), yield WCO effects in Turkish, too.

(134) * pro_i kardeşi Ali'nin $kim\text{-}i_i$ gördüğünü san-dı[11].
sister Ali-GEN who-ACC see-comp-ACC think-Past
* "Who_i did his_i sister think Ali saw?"

(135) * $kim\text{-}i_i$ pro_i kardeşi Ali'nin t_i gördüğünü san-dı.
who-ACC sister Ali-GEN see-comp-ACC think-Past
* "Who_i did his_i sister think Ali saw?"

In (134), the wh-phrase moves at LF to matrix CP domain for question interpretation. Recall from section 1.3.4 that this movement causes WCO effect

[11] Note that for some speakers, the reading where *Ali* and *pro* is coindexed is grammatical. However, what we are interested here is the reading where *pro* and *who* are coindexed, which is ungrammatical.

according to Leftness Condition and the derivation turns out to be ungrammatical. Unlike clause internal scrambling, scrambling the DO wh-phrase cannot save the structure as seen in (135). The wh-phrase and its trace should c-command the pro according to WCO Filter in chapter 1. The fact that (134) and (135) creates WCO effects gives evidence that this movement is of the nature of A-bar movement.

The same also holds for the universal quantifier.

(136) * pro_i kardeşi Ali'nin herkes-i_i gördüğünü san-dı[12].
sister Ali-GEN everyone-ACC see-comp-ACC think-Past
* "His sister thought that Ali saw everyone."

(137) * herkes-i_i pro_i kardeşi Ali'nin t_i gördüğünü san-dı.
everyone-ACC sister Ali-GEN see-comp-ACC think-Past
* "His sister thought that Ali saw everyone."

The universal quantifier moves to CP domain covertly in (136) and overtly in (137). The ungrammaticality of these two sentences indicates that the movement type depicted in (136) and (137) is A-bar movement.

2.4.3.2 Binding Facts

As in Hindi in Mahajan's (1990) analysis, another piece of evidence to look at in Turkish is the binding relations. Similar to Hindi, Turkish long-distance scrambling cannot create new binders. Consider (138):

[12] This example is similar to (135) above. What we are interested here is the reading where *pro* is coindexed with the universal quantifier, not the other reading where *pro* is coindexed with *Ali*.

(138) * Kendileri$_i$ Ali'nin adamlar-ı$_i$ ele verdiği-ni sandı.
themselves Ali-GEN men-ACC betray-Comp-ACC think-Past
"Themselves$_i$ thought that Ali betrayed the men$_i$."

(138) is ungrammatical due to Principle A violation. The matrix subject, which is an anaphor, must be bound by an antecedent. Since this principle is not satisfied in (138), the structure is out. Fronting the antecedent NP to sentence-initial position does not save the structure, as illustrated in (139) below.

(139) * Adamlar-ı$_i$ kendileri$_i$ Ali'nin t$_i$ ele verdiği-ni san-dı.
men-ACC themselves Ali-GEN betray-Comp-ACC think-Past
"Themselves$_i$ thought that Ali betrayed the men$_i$."

The fact that (139) is still ungrammatical shows that long-distance scrambling is to an A-bar position. It is important to note here that, rather than being the subject of the matrix clause, when the anaphor is the subject of the embedded clause, the sentence is grammatical, illustrated in (140a) and (140b).

(140) a. * Ali kendileri-nin$_i$ adamlar-ı$_i$ ele ver-diği-ni san-dı.
Ali themselves-GEN men-ACC betray-Comp-ACC think-Past
" * Ali thought that themselves$_i$ betrayed men$_i$."

b. Adamlar-ı$_i$ Ali kendileri-nin t$_i$ ele ver-diği-ni sandı.
men-ACC Ali themselves-GEN betray-Comp-ACC think-Past
(lit.)" Ali thought that themselves$_i$ betrayed men$_i$."

Similar to Hindi, when the subject is in the embedded clause, the sentence is grammatical, which means that the object first A-moves and then undergoes A-bar movement. This is also compatible with the proposal put forth in the previous section. The subject stays in-situ and the object moves to matrix [Spec, TopP]. After reconstruction, the object is in the higher [Spec, vP], thus it binds the subject in-situ. The derivation is as in (141) below. The constituents in the matrix clause are skipped for the ease of discussion.

(141) [$_{TopP}$ Adamlar-ı$_{obj}$ [$_{TopP}$ Ali$_k$ [$_{TP}$ [$_{vP}$ t$_k$ [$_{VP}$ [$_{TopP}$ t$_{obj}$ [$_{TP}$ [$_{vP}$ t$_{obj}$ [$_{vP}$ kendileri-nin [$_{VP}$ t$_{obj}$ ele verdiği-ni] san-dı]]]]]

The same holds when the embedded direct object is an anaphor. Consider (142) below now:

(142) Adamlar-ın$_i$ Ali t$_i$ birbirleri-ni$_i$ ele ver-diği-ni san-dı.
men-GEN Ali each other-ACC betray-Comp-ACC think-Past
"Ali thought that men betrayed each other."

In (142), the subject of the embedded clause has the topic feature and it has to first land into [Spec, TP] in the embedded clause and then it moves to [Spec, TopP] in the matrix clause. The object stays in-situ in the higher [Spec, vP] position. The subject then reconstructs to [Spec, TP] of the embedded clause thus binds the object in the higher [Spec, vP] position. The derivation is as in (143) below.

(143) [$_{TopP}$ Adamlar-ın$_{subj}$ [$_{TopP}$ Ali$_k$ [$_{TP}$ [$_{vP}$ t$_k$ [$_{VP}$ [$_{TopP}$ t$_{subj}$ [$_{TP}$ t$_{subj}$ [$_{vP}$ birbirlerini$_{obj}$ [$_{vP}$ t$_{subj}$ [$_{VP}$ t$_{obj}$ ele verdiği-ni] san-dı]]]]]

In the light of the facts of WCO effects and binding relations presented in this section, long-distance scrambling seems to be movement to an A-bar position while short-distance scrambling seems to involve first A-movement and then A-bar movement.

2.5 An alternative

The analysis in this chapter mainly depends on empirical grounds. However, when theoretical grounds are taken into consideration, it is not possible to argue that it is free from problems. The problem I will raise in this section is related to EPP on *T*. In the analysis, it is claimed that EPP works in tandem with other information structure elements like topic and focus. It is argued that when the subject, which is the only candidate that can check EPP since the object is not allowed to land at [Spec, TP], has identificational focus or topic feature is it allowed to check the EPP feature of T. Otherwise, when it has the informational focus feature, the subject is always in its vP-internal position. One might argue that such an approach might not be so sound since the relation between the information structural feature of the subject and EPP checking is not a crystal clear one. That is, interestingly, only the subject is qualified to check the EPP of T and it is only checked when the subject moves to a position higher than the TP level, not when it stays vP-internally. This is not the case for non-subjects, which seems to be a paradox. Why should EPP be dependent on the relation between the subject and information structural elements?

However, empirical facts illustrated so far indicate that the subject lands at [Spec, TP] only when it carries one of those features and it does stay vP-internal when it has informational focus feature. On theoretical grounds, suggesting another alternative would be of help to contribute to solving the dilemma.

Instead of assuming that [Spec, TP] position does not have to be filled as in the analysis so far, we could assume that [Spec, TP] position always has to be filled, that is, *T* always has EPP, which attracts the subject to [Spec, TP]. The subject then is obliged to stay vP-internal only when it has to do so for independent reasons. This independent reason might be informational focus. That is, informational focus might only be checked at a vP-internal position, which has been assumed so far. Thus, the subject has two jobs to do at the same time, the first one is to check EPP by moving to [Spec, TP] and the second one is to check its informational focus by staying vP-internal. We could then argue that, of the two competing features to be satisfied, informational focus wins and the subject stays vP-internal. However, such a point of view would predict that all structures where the subject has informational focus to be ungrammatical since EPP will stay unsatisfied, which is not the case. This problem can be solved by assuming Alexiadous & Anagnostopoulou (1998) and Öztürk (1999), where they argue that EPP can be checked via head movement. In this picture, head movement satisfies EPP when the subject is not able to do it. The problem with this alternative is that this approach is not much different from the first one. In both, informational elements and syntax interact with each other and EPP is still dependent on other informational structural elements.

This kind of an approach could be an alternative to the one presented in chapter 2; however, which one can explain the facts of scrambling in a more unified and sound manner is a matter of future research.

2.6 Conclusion

In this chapter, we looked at some problems in the previous analyses of scrambling in Turkish and tried to propose an alternative analysis to explain the facts of scrambling in Turkish. In the analysis depicted here, similar to some previous proposals (Miyagawa, 2004; Özsoy, 2005), we benefitted from the interaction between syntax and information structure. Topic and identificational focus features were claimed to be the main motivation for scrambling in Turkish. Apart from this, different focus types in the sense of Kiss (1998) and Göksel & Özsoy (2000) were claimed to play a crucial role in motivating scrambling in Turkish. In the next chapter, I will try to provide further evidence from post-verbal constituents to support the analysis put forth in this chapter.

CHAPTER 3

FURTHER EVIDENCE FROM POSTVERBAL CONSTITUENTS

3.1 Introduction

The aim of this chapter is to give further evidence for the proposal put forth in chapter 2. The evidence for this comes from rightward scrambling, which indicates in this case movement of a constituent base-generated in the pre-verbal area to the right of the verb. It will be claimed that rightward scrambling also shows similar effects identical to leftward scrambling in many respects such as restrictions on anaphor binding, scope interactions between quantifiers and negation and weak crossover repair.

Rightward scrambling has been seen as an instance of movement by some (e.g. Kural, 1997, Kornfilt 2005, Öztürk 2008), and it has also been considered as base-generated in the post-verbal area by some others (Göksel, 2009). In this thesis, following the proponents of movement-based approach, it will be assumed that post-verbal constituents involve movement to the right of the verb rather than being base-generated there, the reason of which will be explained later. Now, let us start by reviewing the theoretical background on rightward scrambling.

3.2 Theoretical Background

In this section we will take a look at the literature on postverbal scrambling. With respect to other languages, Mahajan's (1997) analysis of rightward scrambling will

be dealt with and also a few analyses of rightward scrambling in Turkish will be analyzed.

3.2.1 Mahajan (1997)

Mahajan (1997) argues that the fact that some nominal constituents move to the right of the verb does not result from movement to the post-verbal area, rather it is the stranding of the constituents appearing on the right of the verb due to leftward movement of the verb. This analysis can be counted as a strong support for Kayne's (1994) claim that universally there is spec positions only on the left, hence no movement to the right.

One piece of evidence for this account comes from variable binding and post-verbal NPs. Unlike leftward movement, which is shown in (1b), rightward movement does not override WCO (weak crossover) effects, as seen in (1c) below.

(1) a. *uske$_i$ bhaai-ne har ek aadmii-ko$_i$ maara
his brother$_{ERG}$ every man-ko hit$_{PERF}$
"*His$_i$ brother hit everyone$_i$."

b. har ek aadmii-ko$_i$ uske$_i$ bhaai-ne maara
every man-ko his brother$_{ERG}$ hit$_{PERF}$
??? "Everyone, his brother hit."

c. *uske$_i$ bhaai-ne maara har ek aadmii-ko$_i$

his brother$_{ERG}$ hit$_{PERF}$ every man-ko

"*His$_i$ brother hit everyone$_i$."

(Mahajan, 1997: 189)

The object in (1c) in the post-verbal position, however, shows WCO effects. Instead of moving to the right, if the object moves to the left of the subject as illustrated in (1b) above, then there is no WCO effect. Where it lands in leftward movement is considered to be an A-position in Mahajan (1990), namely a leftward spec position. Thus, the fact that it cannot override WCO effects when it moves rightward indicates that there is no such spec position to the right of the verb. However, assuming that the object strands and the verb moves together with the subject to the left could explain the ungrammaticality of (1c), that is, the quantifier never c-commands the pronoun under that assumption, thus the ungrammaticality of (1c) follows.

Another piece of evidence Mahajan (1997) presents comes from anaphor binding. Leftward movement in Hindi can create a binder for an anaphor in the subject position as exemplified in section 1.3.4 and (2) and (3) below.

(2) ??? ek duusre$_i$ ke parivaaro-ne siitaa or raam-ko$_i$

each other's family$_{ERG}$ Sita and Ram$_{OBJ}$

(khaane le liye) bulaayaa

(eating for) call$_{PERF\text{-}fem}$

"Each other's families invited Sita and Ram (for dinner)"

(3) siitaa or raam-ko$_i$ ek duusre$_i$ ke parivaaro-ne
Sita and Ram$_{OBJ}$ each other's family$_{ERG}$
(khaane le liye) bulaayaa
(eating for) call$_{PERF\text{-}fem}$
"Each other's families invited Sita and Ram (for dinner)"

(Mahajan, 1997: 194)

However, if the same constituent is scrambled to the right of the verb, it does not qualify to be a binder for the anaphor in the pre-verbal position, which is illustrated in (4).

(4) ??? ek duusre$_i$ ke parivaaro-ne (khaane le liye) bulaayaa
each other's family$_{ERG}$ (eating for) call$_{PERF\text{-}fem}$
siitaa or raam-ko$_i$
Sita and Ram$_{OBJ}$

(Mahajan, 1997: 195)

The ungrammaticality of (4) cannot be explained under the assumption that the object moves to the post-verbal area. Because before moving to the right of the verb, the object can move leftward to the left of the subject and thus can qualify as the antecedent of the reciprocal in the subject position. However, if it is assumed that the post-verbal NP does not move there; rather other constituents move leftward, then it is possible to explain (4). Under that assumption, all pre-verbal constituents c-command post-verbal constituents, thus the reciprocal in (4) stays unbound.

With respect to scope and scrambling, Mahajan (1997) argues that scope relations between quantifiers also present evidence that post-verbal constituents do not actually move to the right. In Hindi, scrambling the object to the left of the object leads to ambiguity.

(5) sab tiin ciize khariide ge
everyone three things buy_{FUT}
"Everyone will buy thee things."
(every>three)

(6) tiin ciize sab khariide ge
three things everyone buy_{FUT}
"Everyone will buy three things."
(three>all; all>three)
(Mahajan, 1997: 199)

While (5) is unambiguous, (6) is ambiguous between the two readings. Recall from section 2.3.2 that Mahajan (1997) explains this ambiguity with (7) below, which is adapted from Aoun & Li (1993).

(7) The Scope Principle: a quantifier A may have scope over quantifier B iff A c-commands a member of the chain containing B.
(Aoun & Li 1993:11)

Thus, following (7), if we assume that post-verbal constituents move to the right, we should expect the same ambiguity with PVCs too; however this is not the case, as illustrated in (8).

(8) sab khariide ge tiin ciize
everyone buy_{FUT} three things
"Everyone will buy thee things."
(every>three)
(Mahajan, 1997: 200)

In (8), there is no ambiguity. This cannot be explained if the object moves rightward. However, it can be explained if the view that leftward movement of other constituents takes place is adopted. In that way, there will never be a position that the object c-commands the subject creating ambiguity between the two readings as in (6) above.

The last point in Mahajan's (1997) analysis is that when there is more than one constituent in the post-verbal area, the last one is c-commanded by the one that precedes it, while they are both c-commanded by the pre-verbal constituents, contrary to what is expected under rightward movement analysis. Consider (9) below.

(9) raam dikaayegaa sab-ko tiin kitaabe

Ram show$_{FUT}$ everyone-ko three books

"Ram will show everyone three books."

(everyone>three)

(Mahajan, 1997: 205)

There is no ambiguity in (9), which indicates that the numeral quantifier does not c-command the universal quantifier. Under rightward scrambling analysis, the unambiguous reading of (9) cannot be explained. However, it can be explained under leftward movement analysis. The universal quantifier c-commands the numeral quantifier and thus takes scope over it.

Mahajan (1997) thus concludes that all scrambling operations in Hindi involve leftward movement rather than rightward movement, which strongly supports Kayne's (1994) claim that there is no spec positions, hence no movement to the right.

3.2.2 Kural (1994, 1997)

Kural (1994), contrary to Mahajan's (1997) analysis of post-verbal constituents in Hindi, argues that constituents that appear to the right of the verb in Turkish are base-generated in the pre-verbal position and move to the post-verbal position in the form of a CP adjunction.

Kural (1994), by giving evidence from anaphor binding, argues that anaphor binding is not sensitive to word order when the constituents appear post-verbally.

(10) Ahmet gösterdi adamları$_i$ birbirlerine$_i$

Ahmet showed men-ACC each other-DAT

"Ahmet showed the men to each other."

(11) Ahmet gösterdi birbirlerine$_i$ adamları$_i$

Ahmet showed each other-DAT men-ACC

"Ahmet showed the men to each other."

(Kural, 1994:7)

In (10) and (11), there is an anaphor and it must be c-commanded by its antecedent to satisfy Principle A of the binding theory. The grammaticality of both (10) and (11) indicate that the anaphor is c-commanded by its antecedent at LF. However, this is not the case at S-structure. Thus, Kural (1994) assumes that the constituents appearing to the right of the verb can freely reconstruct at LF and after reconstruction, the antecedent c-commands the anaphor.

Next evidence Kural (1994) discusses is related to the scope of quantifiers. He proposes that, according to his own grammaticality judgments, a post-verbal QP always unambiguously takes scope over a pre-verbal QP.

(12) [Üç kişi] binmiş [her arabaya].

three person–nom get in-past-agr every car

S V O

"Three people got in every car."

= Every car was such that……

(13) [Üç kişi] [göz atmış] [her kitaba]

three person-nom eye throw-past-agr every book-dat

S V IO

"Three people skimmed through every book."

= Every book was such that…..

(Kural, 1994:16)

Assuming that S-structure positions of quantifiers determine their scope relations with respect to each other, Kural (1994) notes that in both (12) and (13), the post-verbal quantifier takes scope over the pre-verbal one, which indicates that it occupies a position higher than a pre-verbal constituent.

Kural (1997), similar to Kural (1994), is an attempt to argue against Kayne's (1994) hypothesis that there is no movement to right. He argues that post-verbal constituents must be higher than pre-verbal constituents by looking at scope relations between pre-verbal and post-verbal constituents.

Before going into the details of Kural (1997), island constraints, which will be important for the discussion here, need to be explained. Islands are constructions extraction out of which is blocked. For instance, the wh-phrase in (14b) below, which is extracted from an indirect object position to sentence initial position, is subject to island constraints.

(14) a. $[_{CP}$ Who$_i$ did $[_{IP}$ Poirot tell you $[_{CP}$ that $[_{IP}$ he had seen $t_i]]]]$?

b. *$[_{CP}$ Who$_i$ did $[_{IP}$ Poirot tell you $[_{CP}$ when$_j$ $[_{IP}$ he had seen t_i $t_j]]]]$?

(Haegemann, 1994:364)

The only difference between (14a) and (14b) is that in (14b), there is a wh-element in the embedded clause which occupies the [Spec, CP] position, which is not the case in (14a). Thus, the sentence is ungrammatical since the wh-element occupying the intermediate [Spec, CP] position creates an island. Thus, Ross (1967) concludes that wh-questions are islands and extraction out of wh-questions must be blocked.

A similar constraint is the complex NP island in (15) below.

(15) *[$_{CP}$ Who$_i$ did [$_{IP}$ Poirot make [$_{NP}$ the claim [$_{CP}$ that [$_{IP}$ he saw t_i last week]]]]]?

(Haegemann, 1994:365)

Wh-phrase in (15) is extracted out of a complex NP, which yields ungrammaticality. Thus, wh-questions and complex NPs are islands and they constrain movement and extraction.

Now, let us go back to Kural (1997). He assumes that constituents scrambled to the post-verbal position are as high as CP adjoined and they are also in a derived position rather than being base-generated there since they obey island constraints as shown in (16) and (17) below.

(16) *pro [Op$_i$ [Ahmet-in t_j t_i verdiği] kitab]ı sevdim
1SG Ahmet-GEN give-PAST-3SG book-ACC like-PAST-3SG
Ayşe'ye$_i$
Ayşe-DAT
"I liked the book that Ahmet gave to Ayşe."

(17) *pro [[Ahmet t yediği] için] sana kızdım

1SG Ahmet-NOM eat-PAST-3SG for you-DAT anger-PAST-1SG

pastayı

cake-ACC

"I got angry with you because Ahmet ate the cake."

(Kural, 1997: 500)

Both extracted constituents in (16) and (17) obey island constraints. In (16), the post-verbal constituent obeys the relative clause island constraint and in (17) the PVC obeys the adjunct island constraint. This means that extraction out of islands such as relative clause islands and adjunct clause islands is prohibited, which indicates that PVCs are subject to movement constraints and if they are subject to movement constraint, Kural (1997) concludes that post-verbal constituents in the above examples move there rather than being base-generated there.

Kural (1997) further argues that rightward movement is never allowed in embedded clauses while it is licit after the matrix verb, as shown in (18) and (19) below.

(18) Ayşe [Ahmet-in öğrencilerle konuştuğu]nu biliyor.

Ayşe Ahmet-NOM students-WİTH speak-pst-3SG-ACC know-PRES-3SG

"Ayşe knows that Ahmet spoke with the students."

(19) a. *Ayşe [Ahmet-in konuştuğu]nu öğrencilerle biliyor.

Ayşe Ahmet-gen speak-pst-3SG-ACC students-WİTH know-PRES-3SG

b. Ayşe [Ahmet-in konuştuğu]nu biliyor öğrencilerle.

Ayşe Ahmet-NOM speak-pst-3SG-ACC know-pres-3SG students-with

(Kural, 1997:501)

(19a) is ungrammatical because the IO undergoes rightward movement in the embedded clause; however (19b) is grammatical because the same constituent undergoes rightward movement in the matrix clause.

With respect to the scope of quantifiers, Kural (1997) assumes (20) below.

(20) Scope Assignment

QP_1 takes scope over QP_2 only if QP_1 c-commands QP_2 at the relevant (syntactic) level where scope is established.

(Kural, 1997:504)

Following (18), he assumes that c-command relations of simple quantifiers (e.g. her 'every', bazı 'some') at S-structure determine their scope relations. Thus, in (21) and (22) below, he argues that post-verbal quantifiers take scope over pre-verbal ones.

(21) a. Herkes dün aramış [üç kişi]yi

everyone-NOM yesterday call-PAST-3SG three person-ACC

"Everyone called three people yesterday."

(3y ∀x [x called y yesterday]: *∀x 3y [x called y yesterday])

b. [Üç kişi]yi dün aramış herkes

three person-ACC yesterday call-PAST-3SG everyone-NOM

(∀x 3y [x called y yesterday]: *3y ∀x [x called y yesterday])

(22) a. [Üç kişi] dün aramış herkesi

three person yesterday call-PAST-3SG everyone-ACC

(∀y 3x [x called y yesterday]: *3x ∀y [x called y yesterday])

b. Herkesi dün aramış [üç kişi]

everyone-ACC yesterday call-PAST-3SG three person

(3x ∀y [x called y yesterday]: *∀y 3x [x called y yesterday])

(Kural, 1997:505)

According to his own grammaticality judgments, Kural (1997) argues that there is no ambiguity in the above sentences, that is, post-verbal constituents always take scope over pre-verbal constituents, which means that post-verbal constituents asymmetrically c-command pre-verbal subjects and objects, which is the case at S-structure. Thus, their scope relations seem to be determined according to their surface positions.

However, when the post-verbal constituent is an anaphor or a pronoun, it does take narrow scope with respect to its antecedent, which indicates that it reconstructs obligatorily, as in (23) and (24) below respectively.

(23) Herkes$_i$ dün aramış [pro$_i$ annesi]ni.
everyone-NOM yesterday call-PAST-3SG 3SG mother-3SG-ACC
"Everyone called his mother yesterday."

(24) Herkes$_i$ dün aramış birbirini$_i$.
everyone-NOM yesterday call-PAST-3SG each other
"Everyone called each other yesterday."

(Kural, 1997:506)

When there is a PVC which has to reconstruct due to binding relations, it has to take narrow scope with respect to the pre-verbal constituent, as in (25) below.

(25) a. Herkes$_i$ dün aramış [pro$_i$ üç akrabası]nı
everyone-NOM yesterday call-pst-3SG 3SG three relative-3$_{SG}$-ACC
"Everyone$_i$ called three of his$_i$ relatives."
($\forall$x 3y, y a relative of x, [x called y yesterday]: *3y $\forall$x, y a relative of x, [x called y yesterday])

b. [Üç kişi]$_i$ dün aramış [pro$_i$ her akrabası]nı
three person yesterday call-PAST-3SG 3SG every relative-3SG-ACC
"Three people$_i$ called his$_i$ every relative."
(3x $\forall$y, y a relative of x, [x called y yesterday]: *$\forall$y 3x, y a relative of x, [x called y yesterday])

(Kural, 1997:506)

By looking at the data above, Kural (1997) reaches the conclusion that the relevant syntactic level where scope is established mentioned in (18) for Turkish is LF rather than S-structure. Thus, he imposes (26) and (27) below to scope assignment in (20) above.

(26) Scope Preservation

If QP_1 c-commands QP_2 at S-structure, it also c-commands QP_2 at LF.

(27) Economy of Reconstruction

A QP reconstructs only when it is required to do so for independent reasons.

(Kural, 1997:507)

3.2.3 Kornfilt (2005)

With respect to leftward scrambling, basic tenets of Kornfilt (2005), who investigates the asymmetries between preverbal and postverbal scrambling, were summarized in section 1.4.2.3. Now, let us take a look at how she treats post-verbal constituents in the phrase structure. The main argument of Kornfilt (2005) in this respect is that there is no hierarchical structure among postverbal constituents. The evidence she puts forth for this comes from (28) and (29) below.

(28) Bu yıl kitap-lar-ı-nı ithaf et-miş üç kişi-ye herkes
this year book-PL-3.SG-ACC dedicate-EpPast 3 person-DAT everybody
"Everybody dedicated his/her books to three people this year."

(29) Bu yıl kitap-lar-ı-nı ithaf et-miş herkes üç kişi-ye
this year book-PL-3.SG-ACC dedicate-EpPast everybody 3 person-DAT
"Everybody dedicated his/her books to three people this year."
(Kornfilt, 2005: 171)

Kornfilt (2005) argues that speakers do not interpret these sentences differently. In both (28) and (29), the numeral quantifier can take either wide scope or narrow scope. That is, if it takes wide scope in (28), it also takes wide scope in (29) according to the Kornfilt's informants. Thus, she concludes that after constituents move to the post-verbal area, there must be a linearization process, which makes all the post-verbal constituents non-hierarchically designed. If they are not hierarchical in the post-verbal area, then they both c-command each other and either one can take scope over the other irrespective of their order.

Regarding the reconstruction of anaphoric PVCs, Kornfilt (2005) gives the following examples in (30) and (31).

(30) a. Her akşam bir içki hazırla-r Ahmet$_i$ kendi-ne$_i$
every evening a drink prepare-AOR Ahmet self-DAT
"Ahmet prepares every evening a drink for himself."

b. Her akşam bir içki hazırla-r kendi-ne$_i$ Ahmet$_i$
every evening a drink prepare-AOR self-DAT Ahmet

(31) a. Her akşam Ahmet$_i$ bir içki hazırla-r kendi-ne$_i$
every evening Ahmet a drink prepare-AOR self-DAT

b. Her akşam kendi-ne$_i$ bir içki hazırla-r Ahmet$_i$

every evening self-DAT a drink prepare-AOR Ahmet

(Kornfilt, 2005:172, 173)

What Kornfilt concludes here is summarized in (32) below:

(32) a. The order between the antecedent and the reflexive does not matter in the post-verbal field;

b. Pre-verbal antecedent does successfully bind the anaphoric PVC, even though it does not c-command it at Spell-Out;

c. The post-verbal antecedent successfully binds the pre-verbal anaphor.

(Kornfilt, 2005:173)

The points above can be explained if it is assumed that all PVCs reconstruct into their base positions. The basic distinction between pre-verbal scrambled and post-verbal constituents is that in terms of interpretation, pre-verbal constituents depend on their surface positions while this is not the case for PVCs.

Kornfilt (2005) also argues against Kural's (1997) analysis that post-verbal constituents have a strong tendency to have wide scope readings since they are hierarchically higher in the phrase structure. According to Kornfilt's judgments, this is not always the case. She presents evidence that when the PVC is a non-subject, then it takes narrow scope over the QP subject, as exemplified in (33) and (34).

(33) Herkes bu yıl kitap-lar-ı-nı ithaf et-miş üç kişi-ye
everybody this year book-PL-3.SG-ACC dedicate-EpPast 3 person-DAT
"Everybody dedicated his/her books to three people this year."

(34) Üç kişi dün akşam yardım et-miş herkes-e
3 person yesterday evening help do- EpPast everybody-DAT
"Three people helped everybody yesterday evening."

(Kornfilt, 2005: 174)

According to Kornfilt (2005), in (33) and (34), the QP subject takes wide scope with respect to the post-verbal numeral QP and the dative QP respectively.

Where these data take us is that PVCs are higher than pre-verbal VP-internal constituents as discussed in chapter 1, but lower than pre-verbal clause-initial subjects and topics, which is exemplified in (33) and (34) above.

Thus, what she concludes about post-verbal scrambling in Turkish, which was also given in chapter 1, is (35) below.

(35) 1. Rightward scrambling is always reconstructed.

2. The position of reconstruction for a scrambled PVC is either its base-position:

a. ……. t_i V XP_i (with t_i as its reconstruction site)

or a position derived by preverbal scrambling as an intermediate step, before post-verbal scrambling takes place:

b. … t_i '…. t_i V XP_i (with t_i' as its reconstruction site)

(Kornfilt, 2005:175)

3.2.4 Öztürk (2008)

Öztürk (2008) argues that post-verbal constituents in Uyghur are derived via movement.

(36) Uyghur: [t_i O V] S_i] → Derivation of OVS via rightward scrambling

Öztürk (2008) argues that post-verbal constituents in Uyghur behave in a manner similar to pre-verbal constituents in that both subjects and objects can be extracted to the post-verbal area out of complement clauses, which are not considered to be islands, as exemplified in (37) below.

(37) a. Men [$\_\__i$ kitap-nı oqı-ğin-in]-i bil-i-men Zemire-niN$_i$
I book-acc read-part-3ps-acc know-pres-1ps Zemire-gen
"I know that Zemire read the book."

b. Men [Zemire-niN $\_\__i$ oqı-ğin-in]-i bil-i-men kitap-nı$_i$
I Zemire-gen read-part-3ps-acc know-pres-1ps book-acc
"I know that Zemire read the book."

(Öztürk, 2008: 4)

For adjunct clauses, There is no subject-object asymmetry and neither the subject nor the object can be extracted out of adjunct clauses, as in (38).

(38) a. *Sen [t_i filim-ni körü-vat-qan-da] kitap oqi-vatat-tı-n Zemire$_i$
you film-acc see- prog-part-loc book read-prog-past-2ps Zemire
"You were reading the book while Zemire was watching the film."

b. *Sen [Zemire ___$_i$ körü-vat-qan-da] kitap oqi-vatat-tı-n filim-ni$_i$.
you Zemire see-prog-part-loc book read-prog-past-2ps film-acc
"You were reading the book while Zemire was watching the film."
(Öztürk, 2008: 4)

Since post-verbal constituents behave identical with pre-verbal constituents, Öztürk (2008) concludes that they are also derived by movement and imposes (39) below for PVCs.

(39) [$_{CP}$ [$_{CP}$ t_i]] XP_i]

Another piece of evidence she presents is related to idiomatic expressions in Uyghur. Idiomatic expressions are claimed to get their idiomatic reading since they start of as a chunk and they preserve their meaning when they are scrambled leftward in Uyghur, indicating that the pre-verbal constituent reach its surface position by movement. The fact that this is also the same when part of the idiomatic expression appears to the right of the verb indicates that it involves movement, as shown in (40) below.

(40) a. Zemire hiçqaçan til-in-i tart-ma-y-du.

Zemire never tongue-3ps-acc weigh-neg-pres-3ps

Literally: Zemire never weighs her tongue.

Intended meaning: Zemire never knows how to speak properly

b. Til-in-i_i Zemire hiçqaçan t_i tart-ma-y-du.

tongue-3ps-acc Zemire never weigh-neg-pres-3ps

Intended meaning: Zemire never knows how to speak properly

c. Zemire hiçqaçan t_i tart-ma-y-du til-in-i_i

Zemire never weigh-neg-pres-3ps tongue-3ps-acc

Intended meaning: Zemire never knows how to speak properly

(Öztürk, 2008: 4,5)

The last piece of evidence Öztürk (2008) presents is related to the scope of quantifiers. Similar to pre-verbal quantifiers, post-verbal quantifiers interact with the pre-verbal ones and can take wide or narrow scope, as in (41) below.

(41) a. Her bala bir kitap-nı oqı-di.

every child one book-acc read-past

“Every child read a book.” (∀>∃, ∃>∀)

b. Her bala t_i oqı-di bir kitap-nı$_i$

every child read-past one book-acc

"Every child read a book." (∀>∃, ∃>∀)

(Öztürk, 2008: 5)

Thus Öztürk (2008) argues that postverbal constituents in Uyghur are derived via movement so that Kayne's (1994) claim about the ban on rightward projection of Specs cannot be universal.

3.2.5 Göksel (2009)

Göksel (2009), a base-generated view of scrambling, is an attempt to characterize syntax with intonational and syntactic elements. She imposes the following template in (42) for syntactic description with intonational elements (H*) and syntactic elements (V).

(42) _____ H*_____V _____

Pre-H* Area (Pre-H*) Focus Field (FF) Postverbal Area (PVP)

What these stand for is given in (43) below:

(43) (i) the Pre-H* Area (Pre-H*): the domain before stress

(ii) the Focus Field (FF): the domain delimited by stress and the predicative verb (Göksel and Özsoy 2000)

(iii) the Postverbal Area (PVP): the domain after the predicative verb

(Göksel, 2009: 13)

Since Göksel (2009) considers that all word orders are base generated rather than involving movement, the template in (42) is the basis for all word order permutations. In her analysis of the sentence structure in Turkish, she treats syntax, prosody and information structure as equal, none being the input to the other.

Göksel (2009) first shows that prosody plays an important role in syntax as well as in the interpretation of sentences. To illustrate how prosody affects the interpretation of the sentence, she provides (44) below.

(44) a. Sema-nın NE-Yİ iste-diğ-in-i düşün-üyor-uz.

Sema-GEN what-ACC want-NOM-3POSS.SG-ACC think-IMP-1PL

(falling intonation)

'We are thinking about what Sema wants.'

'What do we think Sema wants?'

b. Semanın NEYİ istediğini düşünüyoruz?

(rising intonation)

'We are thinking about what Sema wants.'

'What do we think Sema wants?'

(Göksel, 2009: 3)

In (44), whether the sentence is interpreted as a question or affirmative sentence depends on the intonation pattern.

The structure of the template in (42) is exemplified below in (45).

(45) HİÇBİR öğrenci bugün sınav-a gir-me-yecek-miş.

FF

no student today exam-DAT enter-NEG-FUT-EV

'Apparently none of students will take the exam today.

(Göksel, 2009: 13)

Göksel (2009) argues that FF in (45) can precede a PVC or follow Pre-H* or both at the same time. Thus, she gives (46) below to represent the relevant configurations. The examples corresponding to the schemata in (46a), (46b) and (46c) above are given in (47a), (47b) and (47c) below respectively.

(46) a. [$_{\text{Pre-H*}}$ …] [$_{\text{FF}}$ …]

b. [$_{\text{FF}}$ …] [$_{\text{PVP}}$ …]

c. [$_{\text{Pre-H*}}$ …] [$_{\text{FF}}$ …] [$_{\text{PVP}}$ …]

(47) a. Sınava BUGÜN hiçbir öğrenci girmeyecekmiş.

Pre-H* FF

b. HİÇBİR öğrenci girmeyecekmiş bugün sınava.

FF PVP

c. Sınava HİÇBİR öğrenci girmeyecekmiş bugün.

Pre-H* FF PVP

(Göksel, 2009: 14)

Göksel (2009) explains the characterizations of the template in (42) as follows.

> Certain points follow from the proposed characterization of the template. Firstly, there are no specific linear positions for arguments and adjuncts. A direct object does not have to be based-generated left-adjacent to the verb, nor does it have to occupy a designated position. NPs which have accusative markers are unambiguously interpreted as direct objects wherever they occur in the sentence. Hence case, in the proposed way of looking at Turkish syntax, is not 'assigned' by a verb to a specific position, nor is it checked in a particular position, forcing an NP to have a connection with a specific location. Accusative case marking simply acts as an instruction for an NP to be interpreted as the internal argument of a two-place predicate. Similar conditions hold for other grammatical functions (see Göksel 1992 for details). The difficult cases are arguments with no overt case marking, the subject and the bare direct object, and this is where the template in (20) comes in.
>
> (Göksel, 2009: 14)

She further argues that in verb-initial sentences, quantifiers always have ambiguous scope, which means that the PVP is much less structured than the Pre-H* and the FF.

(48) BAK-TI bir doktor her hasta-ya.

treat-PF a doctor every patient-DAT

'A doctor treated every patient.'

(VSO; sub: ∃, obj: ∀)

∃ > ∀ (non-distributive reading available)

∀ > ∃ (distributive reading available)

(49) GÖREVLENDİR-MİŞ her asistan-ı bir hoca.
assign.a.task.to-PF every assistant-ACC a professor
'A professor assigned a task to every assistant.'

(VOS; sub: ∃, obj: ∀)

∃ > ∀ (non-distributive reading available)

∀ > ∃ (distributive reading available)

(Göksel, 2009: 20)

What Göksel (2009) concludes from the discussion above is that grammaticality of sentences is dependent on prosody, that is, without taking the effects of prosody into account, it is impossible to understand the grammaticality of sentences.

3.3 Post-verbal Constituents in Turkish

In this section, I will try to look at the nature of post-verbal constituents and their interaction with other information structure elements as I did for leftward scrambling in chapter 2.

3.3.1 Background

As was briefly discussed in chapter 2, information structure basically has three components, namely topic, focus and background. Topic is what the whole proposition is about. Focus conveys new information. Post-verbal constituents are considered to be backgrounded elements (Erguvanlı, 1984, Akar, 1990), for which İşsever (2003) uses the term tail. Background is defined as the information that can

be recoverable from the context. In other words, it is what the hearer and the listener share. Cited from Özge (2003), Erguvanlı's (1979) definition of background is given below.

> Erguvanlı (1979) characterizes the post-predicate region of a sentence as hosting her information structural category of *background*. She defines background material as the "material that is 'supplementary' to the communication of a linguistic expression" (p.71). For an NP, being supplementary means to be either "discourse-predictable (i.e. has already been mentioned) or is recoverable from previous discourse (i.e. has not been mentioned but is implied or alluded to)" (p.72), and not needed "to be used contrastively" (p.75). Regarding the material that can occur post-predicately, Erguvanlı also suggests another category distinct from background information that she calls after-thought material, referring "to any material remembered after a sentence has been uttered" (p.65). She suggests that "a slight pause" between the predicate and after-thought material is an intonational clue that decides between a background and an after-thought reading. Extraposition of element to a post-predicate position, through Erguvanlı's conception, then emerges as a syntactic strategy that is once again attributed to a pragmatic function, i.e. *backgrounding*.
>
> (Özge, 2003:14-15)

In Turkish backgrounded constituents can only be found in the post-verbal positions. Consider (50):

(50) <u>Ahmet</u> t_i Ali'ye ver-di kitab-$ı_i$.
Ahmet Ali-DAT give-PAST book-ACC
"Ahmet gave the book to Ali."

The subject in (50) is the topic of the sentence, that is, what the sentence is about. Also recall from the second chapter that it is distressed. The dative case-marked indirect object conveys new information that can otherwise never be retrieved from the context, which can also be tested by using question answer test *bahsederek* test

illustrated before. The direct object in the post-verbal position above is considered to be backgrounded in that it can be recovered from the context.

As aforementioned, Rizzi (1997) splits CP into different functional heads, namely TopP and FocP. Both topic and focus in his analysis are elements in information structure, which are no different from the backgrounded element in (50) above in the sense that the direct object, which is backgrounded, is also an information structure element. Thus, it may be assumed that the background element also has a functional phrase. Following this, I assume that the place occupied by the rightward moved constituents is the functional projection of background, that is, BackgroundP, henceforth BP. The position of this new functional projection with respect to the other information structure elements will be discussed in the following sections. What needs to be explained here is the different status of these functional projections, now let us take a look at these.

3.3.2 Focus vs Background

The fact that focus and background are not of the same status is clear both from their semantics and their stress patterns, as well as the syntactic domain they can appear in. The first difference is that while focus in the sentence represents new information, background represents information recoverable from the context. With respect to their stress patterns, they differ from each other in that focus always has stress, either informational or identificational (Kiss, 1998) whereas background information can never be stressed since it is always in the post-verbal position (Göksel & Özsoy, 2000). Finally, in Turkish a focused constituent can never occur postverbally, which is the canonical position for backgrounded items.

3.3.3 Topic vs Background

One difference between topic and background is given by İşsever (2003). İşsever (2003), following Vallduvi and Engdahl (1996:491), states that topics in Turkish bear pitch accent, which is identified as a rising tone by Kılıçarslan (1994). However, background elements lack such an accent.

The next evidence indicating the difference between the topic and the background comes from the topicalization tests illustrated in chapter 2. If any constituent is to be interpreted as the topic of the sentence, we would expect that constituent to be used with the topic marker "–ise" in Turkish. The fact that post-verbal elements cannot be used with a topic marker is exemplified by the contrast between (51a) and (51b) below.

(51) a. Kitab-ı ise Ahmet oku-du.
book-ACC topic marker Ahmet read-PAST
"As for the book, Ahmet read it."

b. *Ahmet oku-du kitab-ı ise
Ahmet read-PAST book-ACC topic marker

The ungrammaticality of (51) shows that the sentence initial position is the topic position in Turkish and post-verbal position has a different nature than the topic nature, namely they must be considered as background information in terms of information structure.

3.3.4 Movement or not

As aforementioned, there are two competing approaches with respect to the nature of post-verbal constituents. One of them is the one that assumes that all constituents appearing to the right of the verb are derived via movement and the other one is the one that assumes all the constituents appearing to the right of the verb are actually base-generated there. What I will try to show in this chapter by referring to Kelepir (1996) and Öztürk (2008) is that post-verbal constituents involve rightward movement; rather than being base-generated there.

Öztürk (2008) uses certain tests whether post-verbal constituents in Uyghur and Khalkha behave identical with pre-verbal ones or not. The same tests can also be applied to Turkish to see whether post-verbal constituents involve movement to the right. One test is that rightward movement is subject to island constraints mentioned earlier. Only genitive subjects can be scrambled rightward, objects cannot. The examples in this section are adapted from Öztürk (2008), where she uses these tests for Uyghur and Khalkha.

(52) a. Ben Ahmet-in kitab-ı ver-diği kız-ı bil-iyor-um.
I Ahmet-GEN book-ACC give-comp girl know-Pres-gr
"I know the girl that Ahmet gave the book."

b. Ben t_i kitab-ı ver-diği kız-ı bil-iyor-um Ahmet-in_i
I book-ACC give-comp girl know-Pres-gr Ahmet-GEN

c. *Ben Ahmet-in t_i ver-diği kız-ı bil-iyor-um kitab-$ı_i$

I Ahmet-GEN give-comp girl know-Pres-gr book-ACC

In (52b), which is derived from (52a), the subject of the embedded clause is extracted to a post-verbal position. However, in (52c), the object is extracted and the sentence is ungrammatical. This suggests that post-verbal constituents obey constraints[13] that affect movement of constituents to the left, thus hints that they may be derived via movement. Recall from 1.4.2.2 that the subject and the object exhibit asymmetries when they are scrambled leftward. If the constituents moving to the right also show the same asymmetries, this may lead us to think that those constituents also move rightward, rather than being base-generated there.

Apart from relative clauses, adjunct clauses have also been considered to be islands (Öztürk, 2008)[14]. So, if we assume that post-verbal constituents are derived via movement, they must also be subject to island effects in adjunct clauses too, which is exemplified in (53) below.

---

[13] Note that I assume Öztürk (2009), who explains the subject vs non-subject asymmetry in the following way:

One possible explanation for this subject vs. non-subject asymmetry can be that in Uyghur relative clauses subjects might be raising out of relative clauses into the DP that the head noun projects. This idea is supported by the presence of the agreement morphology associated with the subject found on the head noun regardless of its syntactic function in the relative clause. This implies that subjects raise out of relative clauses possibly into a specifier position of the outer DP and trigger Spec-Head agreement with the head noun. The genitive that appears on the subject might also be a result of this as in (i):

i. [$_{DP}$Zemire-**niN**$_i$ [$_{CP}$ t_i kitap-nı ber-gen] qız-**ı**]
Zemire-gen book-acc give-part girl-3ps
The girl to whom Zemire gave the book.

Possessor DPs marked with genitive also trigger agreement with the nouns in whose specifiers they occur and can be scrambled out of the DP:

ii. a. [$_{DP}$Zemire-**niN** qız-**ı**] b. Zemire-**niN$_i$** men [$_{DP}$ t_i qız-**ın**]-ı bil-i-men.
Zemire-gen girl-3ps Zemire-gen I girl-3ps-acc know-pres-1ps
Zemire's girl (daughter) I know Zemire's daughter.

(Öztürk, 2009)

[14] Note here that Öztürk argues that islands in Turkish are valid for overt movement of constituents, not for covert movement like wh-movement.

(53) a. *Sen t_i film-i izle-r-ken kitap oku-yor-du-n Ayşe$_i$.
you film-ACC watch-Aor-while book read-Asp-Past-Agr Ayşe
"You were reading a book while Ayşe was watching the movie."

b. *Sen Ayşe t_i izle-r-ken kitap oku-yor-du-n film-i_i
you Ayşe watch-Aor-while book read-Asp-Past-Agr film-ACC

In (53), neither the subject nor the object can scramble out of an adjunct-clause. Since constituents moving to the left also show the same effects in that the same arguments cannot be extracted leftward out of adjunct-clauses, one might conclude that in (53) as well constituents which appear to the right of the matrix verb are derived via movement.

Next evidence comes from idiomatic expressions. Recall that idiomatic expression must start off as a chunk to retain its idiomatic reading due to the fact that they have to reconstruct when they move. Öztürk (2008) argues for Uyghur that when part of the idiomatic expression appears to the right of the verb, it still retains its idiomatic reading, showing that it involves movement. Otherwise, if they were base-generated; we would not get the idiomatic reading. The same test she applied to Uyghur can also be used for Turkish, as in (54) below.

(54) a. Ahmet ayva-yı ye-di
Ahmet quince-ACC eat-Past
Literally: Ahmet ate the …….
"Intended meaning: Ahmet is in trouble."

b. Ayva-y$ı_i$ ye-di t_i Ahmet

quince-ACC eat-Past Ahmet

c. Ahmet t_i ye-di ayva-y$ı_i$

Ahmet eat-Past quince-ACC

In all sentences in (54), the sentence preserves its idiomatic reading. In (54b), the object is scrambled leftward leaving other constituents stranded. In (54c), the object is scrambled rightward and it still preserves its idiomatic reading, as in the case of leftward movement. The fact that we get the same idiomatic reading in (54c) indicated that (54c) is movement to the right.

The next piece of evidence is given in (55).

(55) Ahmet sev-mi-yor kendi-ni.

Ahmet love-neg-pres self-ACC

"Ahmet does not love himself."

Reflexives can occupy a post-verbal position. If the sentence is grammatical, it means that the anaphor reconstructs to its base-generated position. Otherwise, we would expect ungrammaticality. Recall from Kural (1997) that post-verbal constituents are higher than preverbal ones. If post-verbal anaphors did not reconstruct or if they were base-generated there, they would violate binding theory. The grammaticality of (55) then indicates that the anaphor occupies the post-verbal position via movement.

Also a post-verbal quantifier can interact with a pre-verbal one, as seen in (56).

(56) a. Her çocuk üç kitab-ı oku-du.
every child three book-ACC read-Past
"Every child read a book."
(∀>∃, ∃>∀)

b. Her çocuk oku-du üç kitab-ı.
every child read-Past three book-ACC
"Every child read a book."
(∀>∃, ∃>∀)

What can be concluded from the data above is that post-verbal constituents are moved to their surface position rather than being base-generated there.

Kelepir (1996), analyzing Kayne's (1994) antisymmetry theory, also reaches the same result. As mentioned before, Kayne (1994) argues that universally there are no spec positions to the right and thus there is no movement to the right. However, Kelepir (1996) convincingly shows that this cannot be the case at least for Turkish. She argues against Kayne's (1994) claim and reveals that the theory is too strong to explain the binding, reconstruction and scope facts of Turkish.

3.3.5 Where is B(ackground) Phrase?

We argued above that post-verbal constituents are derived via movement. We assume that there must be a functional projection in the CP domain to host backgrounded constituents. Now, the question to be asked here is the position of this new functional head with respect to other functional heads. The best way to analyze this would be to look at the scope interaction between pre-verbal and post-verbal quantifiers. I will assume that surface structure of quantifiers determines their scope relations, that is, their surface positions are directly reflected at LF[15].

Recall from chapter 2 that TopP and FocP are realized in the CP domain, TopP being above the FocP. Now, let us take a look at the interaction of BP with TopP and FocP.

(57) a. Her öğrenci kitap al-dı mı?
every student book take-Past-Question Prt
"Did every student get a book?"

b. Çoktan, <u>her öğrenci</u> OKU-MUŞ bile iki kitab-ı.
Already, every student read-Past even two book-ACC
"Every student read two books."
(every>two)

As an answer to (57a), in (57b) above, according to me and my informants, the universal quantifier takes scope over the numeral quantifier. I assume that

[15] See also Kelepir (2001) for a detailed discussion of scope rigidity in Turkish.

quantifiers take scope over each other with respect to their surface structure positions. Thus, I propose that the universal quantifier in (57b) is in the spec position of the TopP. It is important to mention here that theoretically the universal quantifier can also be the focus since it is in the immediate pre-verbal area. However, a constituent cannot be the topic and the focus at the same time as explained before. What we are interested here is the reading where the subject is interpreted as the topic of the sentence. Note that when the subject is the topic, the verb has to carry the focus feature. Also, we assume that the backgrounded numeral quantifier occupies the spec position of the BP. Thus, since the quantifier occupying the spec position of TopP can take scope over the quantifier occupying the spec position of BP, (57) above clearly indicates that BP is lower than TopP.

That this is really the case is also shown in (58) below.

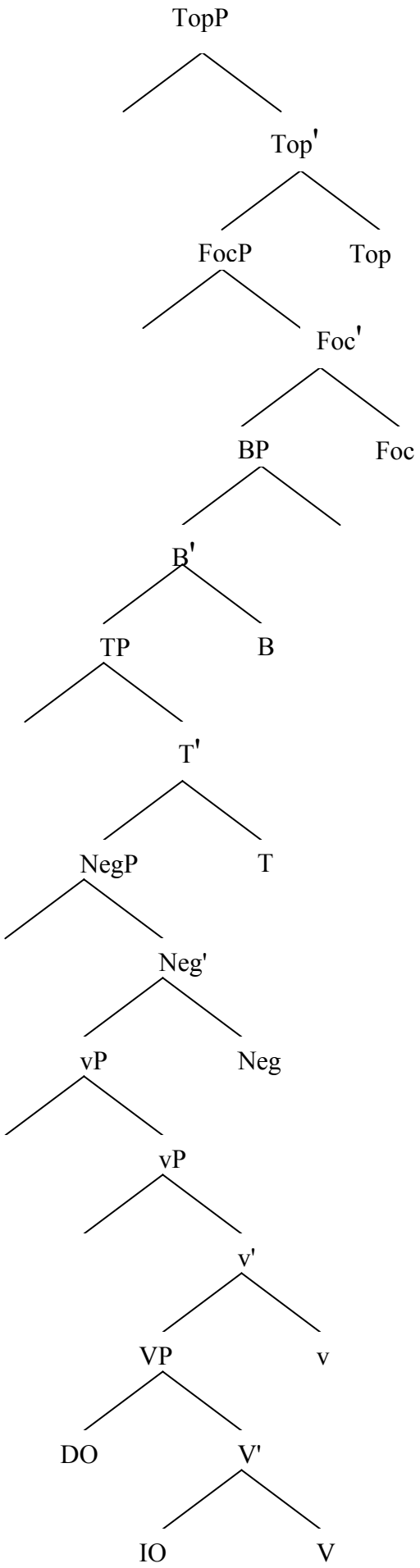
(58) a. Bütün kitaplar-ı mı oku-muş öğrenci-ler?
all book-PL-ACC Question P read-Past student-PL
"Did the students read all the books?"

b. Hayır, BAZI KİTAP-LAR-I oku-muş her öğrenci.
No, three book-PL-ACC read-Past every child
"Every students read some books."
(some>every)

In (58), it is also the case that the object quantifier takes scope over the universal quantifier. Recall from chapter 2 that the element carrying the identificational focus feature moves to the spec of Foc head, thus the object in (58) occupies [Spec, FocP]

and if it can take scope over the universal quantifier which is in the spec of BP, it means that BP is also lower than FocP, too. The relevant tree structure is in (59) below.

(59)


TopP
Top'
FocP
Top
Foc'
BP
Foc
B'
TP
B
T'
NegP
T
Neg'
vP
Neg
vP
v'
VP
v
DO
V'
IO
V

If we take surface position of quantifiers into account in determining the scope of quantifiers, then we would expect an informationally focused quantifier to take narrow scope with respect to a post-verbal quantifier, since following Kural (1997), it is assumed that post-verbal constituents are CP-adjoined. That this is really the case is borne out by the data in (60) below.

(60) Üç kitab-ı oku-muş her çocuk
three book-ACC read-Past every child
"Every child read a book."
(∀>∃)

In (60), the numeral quantifier, which is in the immediately pre-verbal area gets informational focus, which indicates that it stays vP-internally. The universal quantifier, which is in the spec position of BP, takes scope over the numeral quantifier, which shows that it c-commands the numeral quantifier at surface structure.

What can be concluded here is that BP has to occupy a position higher than TP (Kural, 1997), but lower than TopP and FocP. Thus, the order of these functional projections seems to be as follows in (61) below.

(61) $[_{TopP}\ [_{FocP}\ [_{BP}\ [_{TP}\ [_{vP}\ [_{VP}]]]]]]$

Note that in the representation in (59), the specifier of the BP is projected to the right, which is against the general observation within the generative theory (Kayne 1994). The discussion related to the problems with this kind of an analysis for

backgrounded constituents with respect to the claim that there are no spec positions to the right will be given in section 3.6.

3.4 Focus-Background Interaction

After analyzing the position of the BP, now let us focus on the proposal depicted in chapter 2 and try to see whether what is proposed there for pre-verbal scrambling can be applied to post-verbal constituents, as well. It was claimed in chapter 2 that scrambling is sensitive to information structure by giving evidence from topicalization, binding, reconstruction and scope facts. Furthermore, following Öztürk (2004, 2005), it was assumed that [Spec, TP] position does not always have to be filled, instead that position is activated only when the subject carries the topic or identificational focus feature. In this section, it will be claimed that, similar to identificational focus, background feature on the subject also activates the EPP feature on T, thus, any subject that is backgrounded has to stop at [Spec, TP] and then moves to the CP domain, namely to [Spec, BP]. Following Kelepir (1996), I assume that specs at the right are not forbidden contrary to Kayne (1994), and post-verbal constituents land at spec positions on the right. Evidence for this also comes from binding, reconstruction and scope facts with different focus types for pre-verbal constituents. Since post-verbal constituents can never be focused (Göksel & Özsoy, 2000), focus types for post-verbal constituents will not be taken into account.

3.4.1 Evidence from Backgrounding and Binding

Backgrounded constituents here are the ones that appear to the right of the verb. When subject or object moves to the right of the verb, they can create new binders. Compare (62) from chapter 2 with (63).

(62) *Birbirleri-ni$_i$ adam-lar t_i ara-dı.
each other-acc men-pl see-past-agr
"The men saw each other."

(63) Birbirleri-ni t_i ara-dı adam-lar$_i$

(62) is ungrammatical since the subject has informational focus. As extensively discussed in chapter 2, the subject in (62) is in its vP-internal position together with the object, thus the subject cannot serve as the binder of the object. However, as the grammaticality of (63) illustrates, the subject which has been backgrounded to BP can serve as the binder of the object in the vP-internal position. However, BP cannot be the position that creates the binder since that position is in the CP domain, which is an A-bar position. The logical conclusion to reach from this is that the place where the subject is reconstructed must be an A-position and [Spec, TP] is the available position for this duty. This assumption is also compatible with what was put forth in chapter 2. This assumption can also explain the ungrammaticality of (64) and grammaticality of (65) below.

(64) *pro$_i$ sekreter-i-ni herkes$_i$ ara-mış.

secretary-3sg-ACC everyone call-Past

"Everyone$_i$ called his$_i$ secretary"

(65) pro$_i$ sekreter-i-ni ara-mış herkes$_i$

secretary-3sg-ACC call-Past everyone

"Everyone$_i$ called his$_i$ secretary"

First, note that the subject in (64) has informational focus according to the tests presented in chapter 2 and induces WCO effects. As is clearly seen in (65), the subject universal quantifier can serve as the binder of the pro in the object position. Under the assumption above, the subject, while moving to CP domain for backgrounding, stops at [Spec, TP] to check the EPP, which has been activated by BP. Thus, after reconstruction, it is in [Spec, TP] and binds the object, which is in vP-internal position.

One prediction of the proposal above is that we would expect the subject in the pre-verbal area to be able to bind an object in the post-verbal area only when it is identificationally focused or topicalized. This prediction is borne out in (66)-(68) below.

(66) [$_{TopP}$ <u>Herkes$_i$</u> ARA-MIŞ] pro$_i$ sekreter-i-ni

everyone call-Past secretary-POSS-ACC

"Everyone$_i$ called his$_i$ secretary."

(67) [$_{FocP}$ HERKES$_i$ ara-mış] pro$_i$ sekreter-i-ni

everyone call-Past secretary-POSS-ACC

"Everyone$_i$ called his$_i$ secretary."

(68) ??? [$_{vP}$ Herkes ara-mış] pro$_i$ sekreter-i-ni

everyone call-Past secretary

"Everyone$_i$ called his$_i$ secretary."

When the verb carries the focus feature, other constituents in the pre-verbal area are interpreted as topics. Thus, in (66), the subject has the topic feature, as it is the verb head which bears the focus feature. When moving to CP, it has to stop at [Spec, TP], thus after reconstruction, it can bind the object, which will be in the vP-domain. In (67), the same explanation holds with the difference that the subject moves to [Spec, FocP] instead of TopP. The oddness of (68) is also explained in this way: (68) is meant to denote new information as it cannot be an answer to the question of "What happened?" The subject has informational focus, which keeps it vP-internally. After reconstruction, both the subject and the object will be in vP-domain, thus the subject cannot bind the object, which violates Principle A of the binding theory.

As can be predicted from the proposal, when the object is the binder and occurs post-verbally, it can bind the subject when the subject is vP-internal. However, when the subject undergoes topicalization, the post-verbal object fails to bind the topicalized subject.

(69) Birbirleri ele ver-miş adam-lar-ı

each other betray-Past men-PL-ACC

"The men betrayed themselves."

(70) *Birbirleri ELE-VERMİŞ adam-lar-ı

each other betray-Past men-PL-ACC

"The men betrayed themselves."

The capital letters in (70) represents focus on the verb, which in turn shows that the subject has the topic feature. Whether the verb moves anywhere overtly or covertly is irrelevant to the discussion here. What is important is that the subject in (69) has the informational focus since it can be an answer to a wh-question asking the required information. The same subject does not have any focus feature; it is topicalized in (70). Recall that topics can never be focused (İşsever, 2003). The grammaticality of (69) is expected under the proposal. The subject is vP-internal, after reconstruction, the object can qualify as the binder for the subject from its second [Spec, vP] position. The ungrammaticality of (70) is also expected. The subject has to stop at [Spec, TP] while it moves to [Spec, TopP], thus after the reconstruction process, which is obligatory for all constituents, the subject will be in a position that c-commands the object. Th derivation then crashes due to Principle A and Principle C.

3.4.2 Evidence from Scope

Scope facts also shed light on the analysis so far. Recall from chapter 2 that if quantifiers take ambiguous scope, it is due to (71) below.

(71) The Scope principle: a quantifier A may have scope over a quantifier B iff A c-commands a member of the chain containing B.

(Aoun & Li 1993:11)

Thus, according to (71), we would expect the quantifiers in (72) below not to take ambiguous scope.

(72) Üç kitab-ı oku-muş herkes
three book-ACC read-Past everyone
"Everyone read a book."
(every>three)

This prediction is borne out in this way: In (72), since the object is immediately pre-verbal and can denote new information, it has informational focus. The subject universal quantifier may take scope over the object numeral quantifier when the object has informational focus, which requires that it stays vP-internal. The subject, however, stops at [Spec, TP] while moving to BP and after reconstruction, the subject will be at [Spec, TP]. It follows that there is no point in the derivation that the object c-commands the subject. Note that the trace of the subject in its base-

generated position becomes invisible after it moves to [Spec, TP], which is an A-movement.

The ambiguity is obtained in (73) and (74) below, when the object has topic feature or identificational focus feature respectively.

(73) Üç kitab-ı OKU-MUŞ herkes
three book-ACC read-Past everyone
"Everyone read a book."
(three>every, every>three)

(74) ÜÇ KİTAB-I oku-muş herkes
three book-ACC read-Past everyone
"Everyone read a book."
(three>every, every>three)

Although the primary reading in both (73) and (74) is the one that the numeral quantifier takes wide scope with respect to the universal quantifier, the sentences above are ambiguous, unlike (72). Since FocP or TopP are above the BP functional head as explained previously, the primary reading is expected. The second reading is also possible by assuming that the subject can c-command the trace of the object from its surface position in BP or reconstructed position in TP, which is compatible with Aoun & Li's (1993) analysis depicted previously.

The analysis in this section trying to explain quantifier ambiguity needs discussing. In our proposal, reconstruction is obligatory for all elements having undergone A-bar movement. However, when deciding the position of BP, whether it

is higher or lower than other functional projections, we also argued that quantifier scope is determined according to their surface positions. Also, to explain the ambiguous scope relations, we followed Aoun & Li (1993) in (71) above. However, when reconstruction is obligatory, such an assumption does not seem to work very well with the proposal. In Aoun & Li's analysis, there is a one-to-one correspondence between the surface positions of quantifiers and their position at LF. That is, if a Q1 c-commands Q2 at S-structure, it also c-commands Q2 at LF, too, which is also the case for Turkish. This idea is also compatible with Kural's (1997) analysis where he also argues taking post-verbal constituents into account that the c-command relations between quantifiers is no different at S-structure and LF.

However, in ambiguous quantifier readings discussed so far in Turkish, S-structure and LF representations of quantifiers are different from each other. When Q1 c-commands Q2 at S-structure, it is not always the case that Q1 always c-commands Q2 at LF. That may be just the reverse as in (75) below.

(75) a. $[_{TopP}$ Üç kitab-ı$_j$ $[_{FocP}$ HERKES$_i$ $[_{TP}$ t_i $[_{vP}$ t_j $[_{vP}$ t_i $[_{VP}$ t_j]]]]]]

(S-structure,Q1>Q2)

b. (75) $[_{TopP}$ $[_{FocP}$ $[_{TP}$ HERKES $[_{vP}$ Üç kitab-ı $[_{vP}$ t_i $[_{VP}$ t_j]]]]]]

(LF, Q2>Q1)

We, then, could argue that this kind of an analysis is not compatible with Kural's (1997) scope preservation principle since scope relations are not the same at S-structure and at LF according to our analysis. It is inevitable to acknowledge that there is not a one-to-one correspondence between binding theory, which requires

obligatory reconstruction, and scope facts. We argue that reconstruction is obligatory, but under that assumption scope facts cannot be exhaustively explained.

Thus, we might argue that for scope facts, in some way, the surface positions are not independent of interpretation. We could assume that the scope of quantifiers is determined according to their positions at LF, which is the position where interpretation is realized. We could further assume that topic, focus and background positions are interpretational positions. So, optionally, being an interpretational position, topic, focus or background positions can affect the scope of quantifiers. Still, this kind of an analysis does not solve the problems related to scope of quantifiers, but it very strongly indicates an asymmetry between binding and quantification and requires further research.

3.4.3 Evidence from WCO effects

The analysis so far also makes correct predictions with respect to WCO effects. For instance, (76) below is an example of WCO repair.

(76) pro_i sekreter-i-ni ara-mış $herkes_i$
secretary-POSS-ACC call-Past everyone
"Everyone$_i$ called his$_i$ secretary."

The fact that (76) overrides weak crossover effects can be explained in the following way. Since EPP on T is activated due to the fact that the subject has background feature, the subject first lands at [Spec, TP] and then moves to BP. Thus, after reconstruction, positions of the arguments will be [Spec, TP] for the subject, which

is a universal quantifier, and [Spec, vP] for the object. This derivation allows the subject to override the WCO effect.

According to the proposal, we would also find examples where a topicalized subject overrides WCO effect since it will also land at [Spec, TP] after reconstruction. Consider (77) below:

(77) Herkes$_i$ ARA-MIŞ pro$_i$ sekreter-i-ni.
everyone call-Past secretary-POSS-ACC
"Everyone$_i$ called his$_i$ secretary."

In (77), as predicted, the subject undergoes A-movement and overrides WCO effects. Since it is the topic, it first lands at [Spec, TP] and moves to [Spec, TopP]. Since the first movement is an A-movement, it is expected for the subject to override WCO effects.

3.5 Post-verbal Constituents in ditransitive constructions

In this section, I would like to discuss post-verbal constituents for the justification of the proposal so far by relating the issue to binding relations. First, let us take a look at the binding relation between the DO and IO. Since both orders of DO and IO are possible as shown in section 2.3.4, it is predicted that when one of these arguments is moved to the post-verbal area, binding relation should not be violated. (78a) and (78b) below justify this.

(78) a. Adam çocuk-lar-ı$_i$ tanıt-tı birbirleri-ne$_i$.

man child-PL-ACC introduce-Past each other-DAT

"The man introduced children to each other."

b. Adam birbirleri-ne$_i$ tanıt-tı çocuk-lar-ı$_i$

man each other-DAT introduce-Past child-PL-ACC

"The man introduced children to each other."

Since both (78a) and (78b) are grammatical, the IO moves to the lower spec position of vP to be bound by the DO.

Next thing to look at here is the interaction of the subject with the IO. According to the proposal so far, we would expect a backgrounded subject to be able to bind the IO in the pre-verbal area. In (79a), the DO is the topic and distressed, the IO has informational focus feature since it is immediately pre-verbal denoting new information and the subject is background. In both (79a) and (79b) below, the subject can qualify as the binder of the IO.

(79) a. Kitap-lar-ı birbirleri-ne$_i$ ver-miş adam-lar$_i$.

book-PL-ACC each other-DAT give-Past man-PL

"The men$_i$ gave the book to each other$_i$."

b. Birbirleri-ne$_i$ kitap-lar-ı ver-miş adam-lar$_i$.

each other-DAT book-PL-ACC give-Past man-PL

"The men$_i$ gave the book to each other$_i$."

The fact that the subject can bind the IO supports the analysis illustrated so far. When the subject moves to the spec position of the BP on the right, it has to stop at [Spec, TP] since EPP on T is activated when the subject has the background feature. Thus, after reconstruction, the subject lands at [Spec, TP], the IO lands at [Spec, vP] and the subject can bind the IO.

When the subject stays in the immediately pre-verbal area, for me and my informants, the natural interpretation is that the subject has the informational focus feature as it denoted the necessary information. When the subject has the informational focus feature, it leads to a graded acceptability, as seen in (80).

(80) ??? * Kitap-lar-ı adam-lar ver-miş birbirleri-ne.
book-PL-ACC man-PL give-Past each other-DAT
"Intended meaning: The men$_i$ gave the book to each other$_i$."

When the DO is scrambled to post-verbal position and the IO is scrambled to pre-verbal area, we would expect the structure to be ungrammatical, as exemplified in (81) below.

(81) *<u>Birbirleri-ne</u> adam-lar ver-miş kitap-lar-ı.
each other-DAT man-PL give-Past book-PL-ACC
"Intended meaning: The men$_i$ gave the book to each other$_i$."

The ungrammaticality of (81) is explained as follows. The subject, which has informational focus, stays vP-internally. The IO moves to [Spec, TopP]. After IO is

reconstructed, it lands at [Spec, vP] and thus violates Principle A and Principle C of the binding theory.

However, when the subject has contrastive focus or topic feature as in 829) and (83) respectively, the degraded acceptability disappears.

(82) Kitap-lar-ı [$_{FocP}$ ADAM-LAR ver-miş] birbirleri-ne.
book-PL-ACC man-PL give-Past each other-DAT
"The men$_i$ gave the book to each other$_i$."

(83) [$_{TopP}$ <u>Adam-lar</u> kitap-lar-ı ver-miş] birbirleri-ne.
man-PL book-PL-ACC give-Past each other-DAT
"The men$_i$ gave the book to each other$_i$."

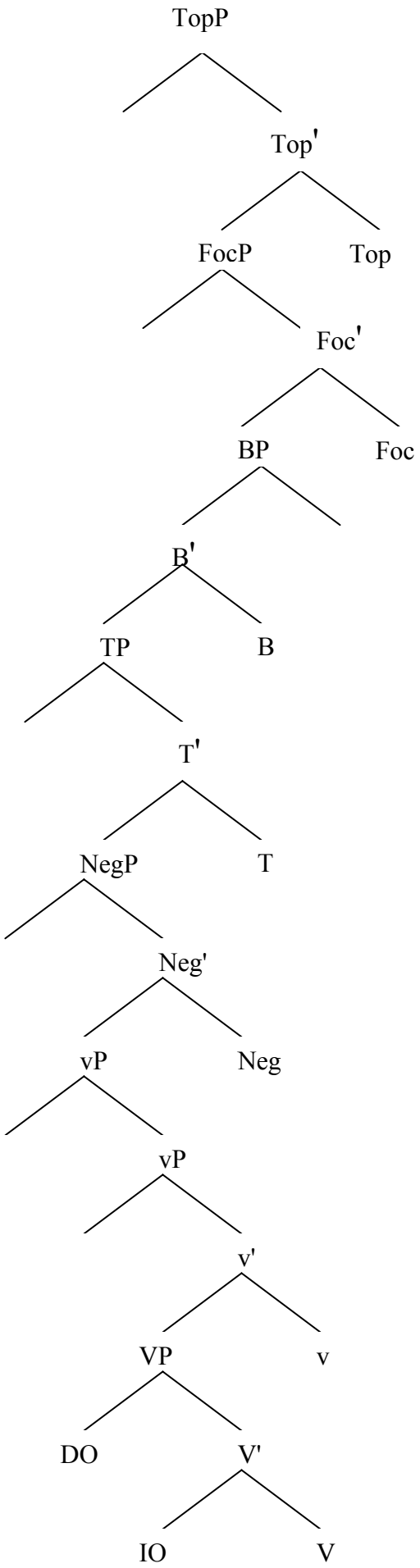
The grammaticality is predicted under the assumptions so far. In both (82) and (83), the subject has the identificational focus or topic feature, thus EPP on T is activated. Since the subject has to stop at [Spec, TP], it can serve as the binder of the IO, which is at [Spec, vP] after reconstruction.

As can be seen from the examples above, evidence from double-object constructions also supports the arguments put forth in this thesis. The binding relation between post-verbal constituents and pre-verbal ones is also sensitive to information structure and assignment of focus.

3.6 Problems

One problem that needs discussion in this section is the status of Background Phrase. The analysis for the background information displays some asymmetries which are worth mentioning. In the argument so far, we took Rizzi's (1997) analysis of CP as the basis and assumed that CP is divided into other functional projections. Furthermore, we have assumed that constituents that carry certain information structural features check these features against relevant heads. The relevant head for each information structural feature is the functional projection of that feature. That is, topic feature is checked at the spec position of TopP and focus feature is checked at the spec position of FocP though this is only valid for identificational focus for Turkish as discussed before. Following these assumptions, we claimed that constituents that carry background feature are checked at the spec position of their relevant head, that is, the spec position of the Background Phrase. The relevant tree structure in (59) is repeated here as (84) below.

(84)

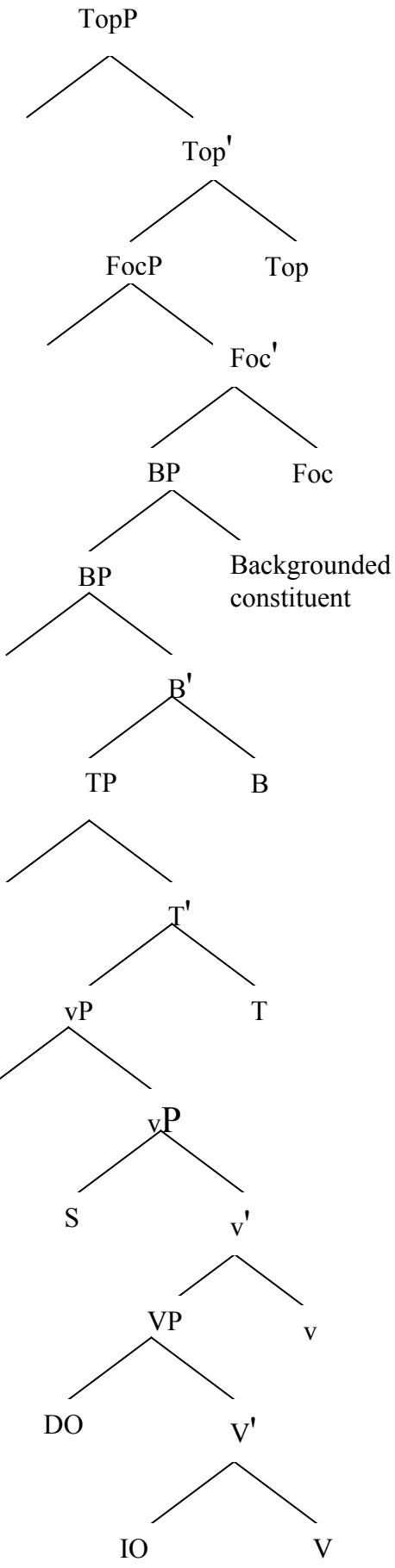

TopP
Top'
FocP
Top
Foc'
BP
Foc
B'
TP
B
T'
NegP
T
Neg'
vP
Neg
vP
v'
VP
v
DO
V'
IO
V

Notice that such an analysis poses problems with respect to symmetrical relations of the functional heads. As aforementioned, there are three functional heads in the CP-domain, namely Topic, Focus and Background projections[16]. Of these functional projections, two of them, TopP and FocP, have their Spec positions on the left and the other one, BP, has its Spec on the right. The constituents carrying the relevant feature move to the spec of the relevant head and check its feature. However, why would that be the case that there is such an asymmetry between such functional projections, two having their specs on the left and the other one having its spec on the right? Although I do not have an adequate answer to this question, alternatives that will be explained below also display similar asymmetries. Thus, it might be argued that backgrounded constituents have characteristics different from other features.

An alternative to the analysis depicted above might be to argue for the relevant structure in the following way. To get rid of the asymmetry above, we could assume that BP also has its spec position on the left, which makes it compatible with Kayne's (1994) antisymmetry theory arguing that there are no spec positions to the right. Thus, next assumption should then be that the constituents carrying the background feature adjoins to the BP. The relevant structure is given in (85) below.

[16] Note that ForceP in Rizzi's (1997) model is not mentioned here since it is not relevant to the discussion in this thesis.

(85)

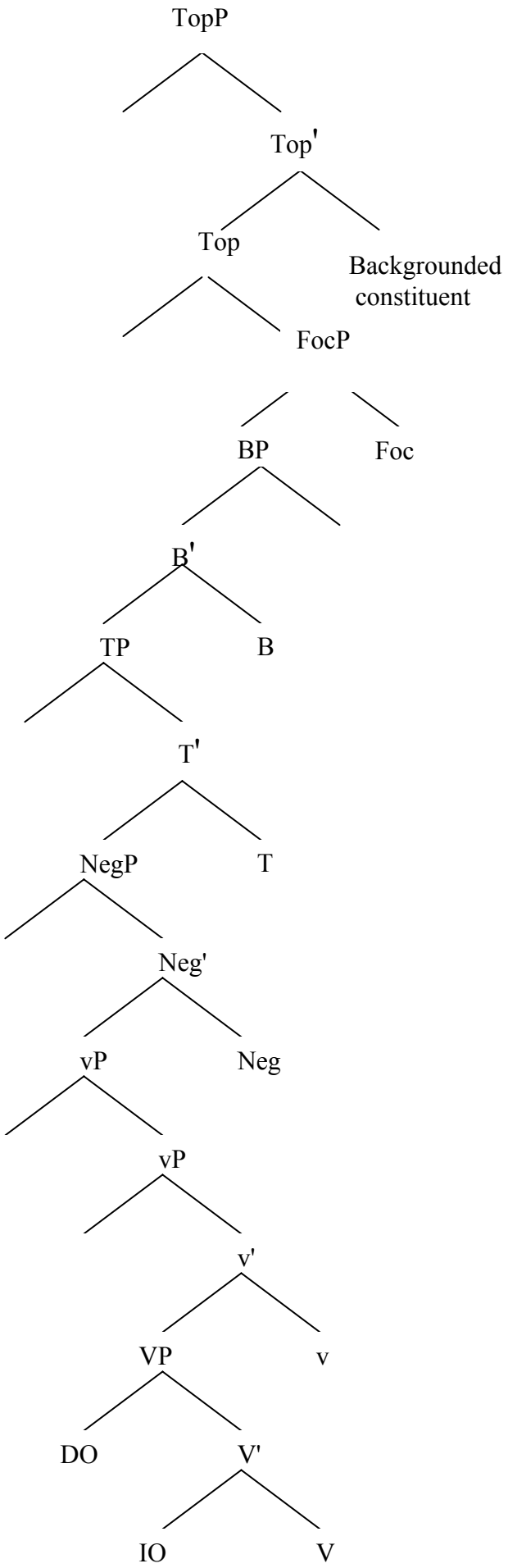

TopP
Top'
FocP
Top
Foc'
BP
Foc
BP
Backgrounded constituent
B'
TP
B
T'
vP
T
vP
S
v'
VP
v
DO
V'
IO
V

Although the tree structure in (85) eradicates the asymmetry in terms of the specifier positions of the functional projections in that it unifies them all having specifier positions on the left, it still induces asymmetry between backgrounded constituent and topicalized & focused constituents. The catch here is that topicalized and focused constituents check their features in a spec-head configuration by moving to the spec positions of their heads; however the backgrounded constituent checks its feature by adjoining to its head instead of moving to its specifier position. Why would this be the case?

Another alternative would be to assume that there is not a functional projection like BP and backgrounded constituents only adjoin to the CP-domain as in previous accounts (Kural, 1997). However, since we follow Rizzi (1997), the functional projections in the CP-domain are TopP and FocP, thus logically, under such an assumption; backgrounded constituents must adjoin to either TopP or FocP. The structure for this analysis is given in (86)[17] below.

[17] Only the structure where the backgrounded constituent is adjoined to TopP is given in (86). However, note that it is possible for the backgrounded element to adjoin to FocP too.

(86)


TopP
Top'
Top
Backgrounded constituent
FocP
BP
Foc
B'
TP
B
T'
NegP
T
Neg'
vP
Neg
vP
v'
VP
v
DO
V'
IO
V

Such a structure in (86) posits three problems. The first one of these problems is related to the optional nature of movement, that is, the constituent with background feature can adjoin either to TopP or to FocP since these are the available positions in the CP-domain. However, it is not possible to tell when it moves to which adjunction site. Thus, in the analysis in this thesis, the aim of which is to get rid of optionality in movement operations, this derivation is problematic.

The second problem is asymmetry between information structural elements. In the derivation in (86), background feature is checked as adjunction. However, other information structural elements topic and focus are checked in spec-head configuration, which is nearly the same problem with the proposal put forth earlier for backgrounded elements and also for the one in (85).

The third one is again related to asymmetry. In (86), while both topic and focus features are checked at their own functional elements, background feature, which is also an information structural element, is not checked at its own head; rather it is checked at other functional element, which is also problematic in terms of the asymmetry between informational structural elements.

Thus, the proposal for post-verbal constituents in this thesis is not an excellent one, however, as a part of an analysis which assumes that all constituents carrying a certain feature have to check their features in the functional projection of those features; this analysis provides insights on the issue and needs further research with respect to the directionality of specifier projection.[18]

[18] See Öztürk (2008) for the proposal where directionality of Spec formation is parameterized cross-linguistically. Languages which lack an obligatorily EPP feature on a given XP projection can allow for rightward spec projection, whereas those which have obligatorily EPP features can only have leftward Specs.

3.7 Conclusion

In this chapter, I tried to present further evidence for the analysis of scrambling put forth in the second chapter of this thesis. By looking at the facts of binding and scope, I tried to illustrate that constituents that carry background feature behave similar to the ones carrying topic or identificational focus feature. As stated in İşsever (2003), trying to analyze syntax without taking the importance of focus and prosody into account will never be enough. Thus I made an attempt in this chapter to relate background feature checked at BP to other information structural features like topic and focus, which more or less show similar characteristics to background feature. Although this analysis has some claims that need to be investigated as a further research topic, it also provides explanation for scopal ambiguities.

CHAPTER 4

CONCLUSION

In this thesis, we tried to analyze the facts of scrambling in Turkish from a minimalist perspective. More precisely, we investigated the nature of movement observed in scrambling, namely A vs A-bar movement. Among the previous proposals with respect to scrambling in Turkish and in general, some claim that scrambling is only A-bar movement (Saito, 1989; Kural, 1993) while some others claim that it involves both A and A-bar movement (Miyagawa, 2003; Öztürk, 2005). In order to understand the nature of movement entertained in scrambling, we looked into the landing positions of moved elements. Similar to Kural (1993), Miyagawa (2004), Özsoy (2005), it was claimed in this thesis that scrambling is not free from other components regulating the grammar, which in this case is information structure. Scrambling is not independent of information structure; rather it is what drives the motivation behind scrambling. The conclusion reached here is that scrambling can be seen as an instance of A-bar movement, which targets the domain associated with information structure related elements and thus provides indirect support for Kural's (1993) analysis. We specifically showed that how different types of focus are realized in Turkish – namely identificational and informational focus - has important consequences in terms of the interpretations of sentences involving scrambling. The data regarding how scrambling interacts with focus were provided from scope, topicalization, adverb placement, reconstruction and binding facts. Beside focus, we also related scrambling to other information structural elements

like topic. It became clear that this kind of an attempt to explain scrambling can make correct predictions regarding the interpretation of sentences in Turkish.

We also investigated post-verbal constituents and their interaction with informational structural elements topic, focus and background mentioned above. The conclusion reached here is that post-verbal constituents also provide support for the proposal depicted for leftward scrambling, indicating that the analysis might be on the right track. We proposed a new functional projection BackgroundP for the constituents moving rightward. Such an analysis for post-verbal constituents presents counter argument to Kayne's (1994) claim that there are no specifier positions to the right. As previously discussed, such an approach is not unproblematic, but it evokes the idea that the universality of Kayne's (1994) claim has to be investigated and questioned in a more detailed way, which also exists in Kelepir (1996).

This kind of an approach certainly has important implications for scrambling in general. Given that scrambling seems to conflict with the Last-Resort Principle as provided in section 1.1 is not borne out in this thesis. All scrambling operations here are claimed to take place to check a certain uninterpretable feature. However, what is significant to note here is that in this analysis, scrambling is not seen as totally independent of information structure. Rather, it is claimed that it is in close relationship with IS.

Information Structure plays an important role in the activation of EPP on T. That is, EPP on T is activated when information structure comes into play. As pointed out in İşsever (2003) and Göksel (2009), it is not possible to explain the facts of syntax without taking the effect of information structure and prosody into account. Thus, hopefully, the approach depicted in this thesis will provide insights

for future research in terms of the relation between syntax and information structure, as well as other components of grammar.

This analysis has implications for a better understanding of EPP. EPP was first developed as the subject requirement on IP (Chomsky, 1982). Later, it has been assumed to be a feature which drives movement and has been associated with all kinds of functional projections which require their specifier positions to be filled with a constituent carrying the relevant feature. However, following Miyagawa (2004), what we propose in this thesis is that EPP is a feature dependent on information structure. Thus, the analysis here induces the requirement for further research of the relation between EPP and information structure.

With respect to representation and position of different kinds of focus, this work presents an alternative proposal. We argued that different focus features occupy different syntactic positions in Turkish. This is contrary to previous views which argue that focus in Turkish does not move (Göksel & Özsoy, 2000). The empirical data, however, indicate that this cannot be the case for Turkish. We specifically argue that informational focus as claimed in earlier work is checked in situ, however, identificational focus is subject to movement. It is checked within the CP domain via movement. Thus, this work can be a step to shed light on the idea of whether different focus types are also realized different positions in syntax as proposed in this thesis.

The main contribution of this thesis regarding the literature on Turkish scrambling is that it is an attempt to explain the facts of scrambling in a unified way, which lacked in the previous accounts. Yet, we acknowledge that the analysis presented here has some theory internal problems that require further research which we leave for a future study.

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