CONTROL IN TURKISH

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ABSTRACT

This study aims to investigate the properties of control in Turkish and provide a typology for Turkish control structures. To this end, the applicability of Hornstein's Movement Theory of Control (MTC) (1999), which treats control as an instance of NP movement, is investigated. To test the applicability of MTC, evidence is presented from split antecedents, co-indexation possibilities in adjunct clauses, the availability of partial control and implicit control, obligatory control under non c-command and Turkish raising structures. On the basis of this evidence, it is argued that control in Turkish cannot be treated as an instance of NP- movement.

In view of the fact that MTC is not applicable to Turkish, Landau's proposal (1999), which preserves PRO account of GB to analyze control structures, is taken as a starting point for the analysis of Turkish control structures and a comprehensive typology of control is presented for Turkish. In this typology, the subtypes of Obligatory Control (OC) in Turkish are described. Along the lines of Landau (1999), it is proposed that the OC category in Turkish consists of two subtypes: EC (Exhaustive Control) and PC (Partial Control) and it is argued that complement in EC structures is tensed whereas it is tenseless in PC. With respect to NOC category, it is argued that NOC in Turkish consists of two subtypes, which are Logophoric Control and Arbitrary Control. In addition to OC and NOC categories, exceptional cases of OC are discussed as well.

To conclude, compared to MTC, PRO account of control in GB provides us with a better basis for the analysis of Turkish control structures. This questions the applicability of Hornstein's MTC cross-linguistically.

KISA ÖZET

Bu çalışmanın amacı, Türkçe'de denetim yapılarını incelemek ve bu yapılar için bir sınıflandırma sunmaktır. Bu amaçla, Hornstein'in (1999) denetimi bir Ad Öbeği (AÖ) izi olarak değerlendiren "Taşıma Temelli" Denetim Kuramı'nın Türkçe'ye uygulanması değerlendirilmektedir. Bu bağlamda, ayrık öncül okumasının mümkün olduğu denetim örneklerinden, eklenti tümcelerindeki eş imlemleme olasılıklarından, Kısmi Denetim ve Örtük Denetim yapılarından ve k-buyurmanın zorunlu olmadığı denetim yapıları ile Türkçe yükselme yapılarından hareketle, Hornstein'in "Taşıma Temelli" Denetim Kuramı'nın Türkçe'ye uygulanamayacağı gösterilmektedir.

Bu göz önünde bulundurularak, denetim yapılarının çözümlenmesinde Yönetim ve Bağlama (YB) Kuramı'nda ADIL'ı kullanan Landau'nun çalışması (1999), Türkçe denetim yapılarının incelenmesinde bir başlangıç noktası olarak alınıp Türkçe için kapsamlı bir denetim sınıflandırılması yapılmıştır. Bu sınıflandırma için, öncelikle Türkçe'de Zorunlu Denetim (ZD) ve Zorunlu Olmayan Denetim (ZOD) yapılarının alt grupları incelenmiştir. Türkçe'de ZD Denetim yapılarının, Tam Denetim (TD) ve Kısmi Denetim (KD) alt gruplarını içerdiği gösterilmiştir. Türkçe'de TD'de yan tümcenin bir zaman göndergesi olduğu, KD'de ise yan tümcenin zaman göndergesi olmadığı öne sürülmüştür. ZOD yapıları ile ilgili olarak,Türkçe'de bu grubun Söylem Odaklı Denetim ve Rastgele Denetim olarak ikiye ayrıldığı öne sürülmüştür. ZD ve ZOD denetim yapıları yanında, ZD grubu içinde farklı özellikler gösteren yapılara da yer verilmiştir.

Sonuç olarak, Türkçe denetim yapılarının çözümlenmesinde, YB Kuramı çerçevesinde önerilen ADIL, Hornstein'in "taşıma temelli" denetim kuramından daha iyi bir açıklama getirmektedir. Bu ise, Hornstein tarafından öne sürülen "Taşıma Temelli" Denetim Kuramı'nın diller arası geçerliliği açısından soru işareti uyandırmaktadır.

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LIST OF ABBREVIATIONS

1S	First Person Singular
1P	First Person Plural
2S	Second Person Singular
2P	Second Person Plural
3S	Third Person Singular
3P	Third Person Plural
Acc	Accusative
Abl	Ablative
Aor	Aorist
Dat	Dative
Fut	Future
Gen	Genitive
Loc	Locative
Neg	Negative marker
Nom	Nominative
VN	Verb Nominalizer
Poss	Possessive
Pst	Past Tense Marker
Prog	Progressive

- The suffixes in Turkish generally undergo vowel and/or consonant harmony. For this reason, following the conventions of Turkish linguistics, the vowels and consonants, which undergo harmony are shown in capital letters. For instance, -mAK means that in this suffix the vowel and the last consonant might change.

CHAPTER 1

INTRODUCTION

1.1 Goal of the Thesis

The aim of this thesis is to investigate the nature and typology of control structures in Turkish. In the literature, control structures have usually been contrasted with raising structures and there have been two main approaches to analyze raising and control structures. Within the Government and Binding (GB) framework, raising and control structures have been associated with different derivations: raising structures have been analyzed through NP movement while control structures have been analyzed through the empty category PRO within the control module (Chomsky 1981; Chomsky & Lasnik 1993, among others). However, recent Minimalist studies, notably Hornstein (1999) attempt to eliminate PRO by analyzing control as a product of movement akin to raising structures.

In this thesis, we will investigate the following questions:

(i) Can we analyze control structures in Turkish as an instantiation of movement as proposed by Hornstein (1999)?

(ii) What kind of implications might the raising structures have for control structures in Turkish?

(iii) What is the nature and typology of Turkish control structures and how are different instances of control derived?

The organization of this thesis is as the following: In this chapter, we will introduce some basic notions such as control and raising, and the basic assumptions of GB and the Minimalist Program. In Chapter 2, we will present the literature on control and raising structures. In Chapter 3, we will look into Hornstein's Movement Theory of Control (MTC) and its application to Turkish showing that control in Turkish cannot be treated as an instance of NP movement. Then, in Chapter 4 we will present Landau's typology of control, which analyzes control via PRO. In Chapter 4, we will also propose two subtypes of control, namely, Exhaustive Control (EC) and Partial Control (PC), and present a representative list of EC and PC verbs in Turkish. In Chapter 5, we will present subtypes of NOC and exceptional cases of OC in Turkish, which will give us a full picture of the typology of control in Turkish.

1.2 Basic Notions

One of the main notions that we will focus on in this study is Control. "Control" is used to refer to "a relation of referential dependency between an unexpressed subject (the controlled element) and an expressed or unexpressed constituent (the controller). The referential properties of the controlled element ... are determined by those of the controller" (Bresnan, 1982:372).

In early treatments of control, control structures were analyzed through two distinct rules: Equi NP Deletion and Super Equi deletion as shown below:

(1) a. $John_i$ hopes [ec_i to win].

b. $John_i$ hopes that [ec_i winning] will be fun.

(Hornstein, 1997:3)

Equi NP Deletion is applied in (1a) while (1b) is analyzed through Super Equi (Grinder, 1970). Equi was assumed to delete the underlying subject of a complement clause if it is coreferential with the subject or the object of the main clause. For instance, in (1a), Equi deletes the underlying subject of "win." Super-Equi was assumed to delete the underlying subject across clauses, which can be infinitely remote from the controller. For instance, in (1b) Super Equi was assumed to delete the underlying subject "John," which is further away from the empty category represented as *ec.*

In the GB literature, the unexpressed subject (the controlled element) in sentences in (1) is represented as PRO. In general, PRO bearing the features [+Pronominal, +Anaphor] is assumed to be found in the subject position of infinitival clauses as sentence (2) illustrates:

(2) a. John told Mary [PRO to leave early].

Within GB, the structure in (2) is called Obligatory Control (OC) similar to the notion of Equi. On the other hand, the Super-Equi example in (1b) is called an instance of NOC since the controller is remote from PRO. We will discuss the general properties of OC and NOC as well as those of PRO in each construction in detail in Chapter 2.

In pursuit of accounting for the properties of control, in this thesis we will also refer to another notion, namely Raising. "Raising" refers to a specific kind of A-movement, whereby a caseless NP moves from the subject position of a non-finite embedded clause to a Case position so that it can get Case. As these structures are derived via movement, the subject position of embedded infinitival clauses in raising

constructions is occupied with an NP- trace. Raising has two main types: Subject-to-subject raising and Subject-to-object raising.

(3) John$_i$ seems [t_i to be happy] (Subject-to-subject raising)

(4) John wants me$_i$ [t_i to be happy] (Subject-to-object raising)

In (3), which illustrates an instance of "Subject-to-subject raising,'" the subject of the embedded non-finite clause moves to Spec, TP of the matrix clause to get the nominative case. In the second type of raising given in (4), which is called "Subject-to-object raising," the subject of the embedded clause moves to the complement position of the verb in the matrix clause to get the accusative case and hence surfaces with the accusative case. We will look into the derivation of Subject-to-subject and Subject-to-object raising in detail in Chapter 2.

1.3. Theoretical Framework

This thesis assumes the tenets and premises of the Minimalist Program as put forth in Chomsky (1993, 1995, 1998 and 2001). However, as the literature on control is developed mainly within the Government and Binding (GB) Theory, we will refer to the general assumptions of this framework as well. Therefore, in this section we will present a brief outline of the general premises of GB and then we will introduce the Minimalist Program.

1.3.1. The Government and Binding Theory (GB)

The GB framework as introduced by Chomsky (1965; 1973; 1986 and 1992) assumes the presence of the Universal Grammar (UG), which consists of an absolute set of principles constant for all human languages. Within GB, it is assumed that the grammar is composed of four levels of representation, which are namely D-structure, S-structure, Logical Form (LF) and Phonetic Form (PF). As formulated in Chomsky (1981, 1986), the lexicon and the categorical component of the grammar constitute the base, which generate the D-structure representations. Then, these are mapped onto the S-structure through transformations or the Move-Alpha rule. Finally, S-structure is sent off to the levels of PF and LF.

The GB framework also assumes a number of sub-modules such as Theta theory, Binding Theory and Case Theory. Let us briefly describe each of these modules.

Theta theory is the sub-component of GB, which regulates the assignment of theta roles to arguments a predicate can take. The semantic relations between predicates and their arguments are referred to as theta roles. What determines the assignment of theta roles is the theta-criterion, which states that each argument is assigned one and only one theta role, and each theta-role is assigned to one and only one argument.

Binding Theory is another module within GB, which regulates the interpretation of NPs. Binding Theory contains three principles, Principle A, B and C, each of which regulates the interpretation of a specific NP-type. Principle A of the Binding Theory states that an anaphor, such as a reflexive and a reciprocal, must be bound in its governing category, which is defined as the minimal domain that contains the NP in question. Principle B stipulates that a pronoun must be free in its governing category and finally Principle C states that a referential expression must be free everywhere.

Case Theory is the module of GB, which is concerned with the licensing of NPs. The licensing of NPs is realized through Case Filter, which states that every overt NP must be assigned case. There are two types of case, namely structural case (e.g. Nominative and Accusative in English) and inherent case (e.g. the German Dative and Genitive cases). Structural case assignment is done under government. Verbs and Prepositions assign structural Accusative Case under government. Nominative case, on the other hand, is assigned by Finite I either under government or by virtue of Spec-head Agreement. Inherent case assignment is related to theta role assignment. The case filter is correlated to Theta Theory via Visibility Condition (Chomsky 1986), which requires that an NP must have Case in order to receive a theta-role (Haegeman, 1994).

1.3.2. Minimalist Program

The Minimalist Program assumes the system of human language to be composed of a lexicon and a Computational System (CS), which takes elements from the lexicon and forms linguistic expressions. Unlike GB, which assumes four levels of representation, the Minimalist Program assumes only two levels of representation, which are PF and LF. This is due to the fact that in the Minimalist Program, D-structure and S-structure are eliminated to have a more economic model of the grammar.

Merge and *Move* are the operations in this framework and the latter one is assumed to be more costly. For this reason, there are a number of economy principles restricting this operation. *Greed* states that an element can move only if it carries a feature that has to be checked. *Last Resort* states that movement can apply only if it is triggered by the necessity that some formal feature has to be checked. *Shortest Move* requires that a constituent must move to the first appropriate position. Another economy

principle is *Procrastinate*, which requires that in derivations, movement holds off until after Spell-Out (Marantz, 1995:357).

Within MP, an element is licensed via Feature checking. Feature checking refers to the process, whereby the relevant features of a moved constituent are paired with that of a functional category, which attracts the first. If the features match, the structure converges otherwise, in the presence of unchecked features, the structure crashes.

In earlier versions of MP, feature checking was assumed to be realized via overt or covert movement (Chomsky 1993, 1995). In overt movement, phrases, which need to check a certain feature, were assumed to move overtly. Covert movement, on the other hand, is more economical since it involves only the movement of features. In the later versions of MP, feature checking is realized in situ via a mechanism called Agree (Chomsky 1998, 2001). In Agree, feature checking takes place in situ via a relation established between a Probe (a head with [-interpretable] feature) and a Goal (an element with [+interpretable] features).

CHAPTER 2

CONTROL VS. RAISING

2.1 Introduction

As we briefly introduced in Chapter 1, within the Government and Binding Theory (GB) raising structures illustrated in sentence (1) below are analyzed via NP movement, which is represented with an NP-trace, i.e. t_i in (1). On the other hand, control structures as shown in sentence (2) do not involve NP movement and instead are analyzed as having a phonologically null element, PRO, which is controlled by "John" in the matrix clause in (2):

(1) John_i seems [t_i to be happy] (Subject-to-subject raising)

(2) John_i wants [PRO_i to see Mary] (Subject control)

Unlike the traditional distinction assumed for raising and control structures above, in recent studies within the Minimalist Program (MP) (Hornstein 1999; Boeckx & Hornstein 2003), the distinction between Raising and Control structures have been "minimized" and control structures have been analyzed as products of NP movement akin to raising structures as exemplified in (3) and (4):

(3) John_i seems [t_i to be happy] (Raising)

(4) John_i wants [t_i to see Mary] (Control)

When we look at Turkish, we see that Turkish exhibits both raising and control constructions, as (5) and (6) exemplify respectively:

(5) Umut [t_i mutlu gibi] görün-üyor (subject-to-subject raising)
Umut-Nom happy like seem-Prog-3S
'Umut seems to be happy'

(6) Umut [PRO Emel'i gör-mek] ist-iyor. (subject control)
Umut-Nom Emel-Acc see-Inf want-Prog-3S
'Umut wants to see Emel'

In example (5), it is assumed that the subject of the embedded clause raises to the matrix clause in parallel to the English sentence in (1) (Moore 1981; Kornfilt 1977). On the other hand, sentence (6) has been analyzed as a typical example of control in Turkish. In sentence (6) there is assumed to be a null element PRO, which is controlled by the matrix clause subject "Umut."

In the following section, the general properties of control structures and the traditional analyses proposed to account for them within the GB framework will be discussed in detail. Then, in order to set the ground for comparison, we will take a brief look at how different kinds of raising structures have been analyzed within the same framework. Finally, we will outline the tests that traditionally have been used for distinguishing control and raising structures.

2.2 Theoretical Background for Control Structures

This section will introduce how control structures are analyzed within GB. We will first discuss the properties of PRO and then present different types of control structures introduced within GB.

2.2.1 General Properties of PRO

As we pointed out in Chapter 1, in the GB literature, the unexpressed subject (the controlled element) is represented as PRO. PRO is typically found in the subject position of infinitival clauses as sentence (7) illustrates:

(7) John needs [PRO to call Mary]

The existence of PRO is basically motivated by the theta criterion, which requires that in sentence (7), the infinitival clause "to call Mary" has the non-overt subject represented as PRO. "Call" is a two-place predicate with an external and internal argument. "Call" has to assign two theta roles: one to the internal argument, in this case "Mary," and one to the external argument, which is, in this case, assigned to the non-overt NP represented as PRO. That is, PRO is motivated to host the theta role of "call," which must be assigned to the external argument under the theta criterion.

In (7), PRO is "controlled" by the main clause subject "John" and is like an anaphor in the sense that it is dependent on another NP within a specific domain, namely" John" in (7), for its interpretation. However, the interpretation of PRO in (7) differs from that of (8) and (9):

(8) [PRO To abandon the investigation] would be regrettable.

(Haegeman, 1994: 263)

(9) [PRO To study syntax] is fun.

As noted by Haegeman (1994), in sentences like (8) and (9), PRO is roughly equivalent to a pronoun because depending on the context, PRO may be taken to refer to a specific referent such as "we, you, I, they etc.," or it might also be interpreted as equivalent to the arbitrary pronoun "one." Therefore, in these sentences, PRO acts like a pronominal.

Within GB, the feature composition of PRO is argued to be [+ Anaphor, +Pronominal]. According to its feature composition, PRO should be subject both to Principle A and to Principle B. In other words, PRO's being [+Anaphor, +Pronominal] means that it is subject to contradictory requirements. Because as an anaphor, it is subject to Principle A of the Binding Theory, requiring it to be bound in its governing category and as a pronominal, it is subject to Principle B, obliging it to be free in its governing category.

GB's solution to this contradiction is to assume that PRO is inherently ungoverned or in other words, PRO is licensed when it is ungoverned. Therefore, the requirement that PRO be ungoverned derives from the binding theory and from the characterization of PRO as [+Anaphor, +Pronominal] (Haegeman, 1994). The condition of PRO's being "ungoverned" is referred to as the "PRO theorem" in the literature.

Given that PRO is a [+Anaphor, +Pronominal] category, which must be ungoverned, what are its properties in terms of Case? Within the GB framework, since Case is checked under government and PRO is ungoverned, PRO never bears Case. The

only way it can evade the Case Filter is by having no phonological content because the Case Filter applies only to NPs with phonological content. In later versions of GB, Chomsky and Lasnik's Null Case Theory (1993) stipulates that PRO is a case-marked category, but it receives "null case" from non-finite T.

2.2.2 Types of Control

In literature, control is traditionally assumed to have two main types: Obligatory Control (OC) and Non-Obligatory Control (NOC). The following sentences illustrate OC and NOC respectively:

(10) $John_i$ tried [PRO_i to behave himself]

(11) $John_i$ thought that it was important [PRO_i to behave oneself].

(Haegeman, 1994:277)

As we noted in Chapter 1, in earlier treatments of control, the control structures such as the one in (10), which involves a local controller, was analyzed as Equi NP Deletion whereas the one in (11), in which the controller is further away from the empty category, was analyzed as Super Equi.

Hornstein (1997) points out that GB honored essentially the same distinction between Equi and Super Equi through Obligatory and Non-Obligatory Control as defined in Williams (1980). Obligatory Control conforms to the earlier Equi structures, as in (10) since the null operator is co-referential with the subject of the main clause. On the other hand, Non-Obligatory Control is similar in essence to the Super Equi

configurations such as the one in (11) because the understood subject of the bracketed nonfinite clause is arbitrary and is not co-referential with an NP that is close to it.

Williams (1980) has argued that each type of control, namely Obligatory Control (OC) and Non-Obligatory Control (NOC), is characterized by a different set of properties. Hornstein (1997) outlines a list of properties that have been proposed in the literature for each type, which is based on Fodor (1975), Lebeaux (1985) and Williams (1980) (cited in Hornstein 1997). The following sentences illustrate the properties of OC PRO.

(12) (a). *It was expected PRO to shave himself.

(b) *John thinks that it was expected PRO to shave himself.

(c) *John's campaign expects PRO to shave himself.

(d) John expects PRO to win and Bill does too. (=Bill wins)

John hates PRO losing and Bill does too. (= Bill loses/ * Bill hates John's losing)

(e) *$John_i$ told $Mary_j$ PROi+j to leave together.

(f) The unfortunate expects PRO to get a medal.

(Hornstein, 1997:4)

(12a) illustrates that OC PRO must have an antecedent within the matrix clause. The ungrammaticality of (12b) follows from the fact that "John" is not local to PRO. This shows that OC PRO's antecedent must be local. (12c) is ungrammatical because OC PRO's antecedent "John" does not c-command PRO. (12d) shows that OC PRO only permits a sloppy interpretation under ellipsis. (12e) is ungrammatical because OC PRO cannot have split antecedents. (12f) indicates that OC PRO only has a *de se*

interpretation in that PRO only applies to the individual(s) referred to by the controller. In other words, PRO in (12f) only has the *de se* interpretation because the unfortunate believes of *himself* that he will be a medal recipient.

According to Williams 1980, PRO in non-obligatory control environments contrasts in every respect with the obligatory control cases as the following list of sentences on the properties of NOC PRO illustrates:

(13) (a) It was believed that PRO shaving was important.

(b) John thinks that it is believed that PRO shaving himself is important.

(c) Clinton's campaign believes that PRO keeping his sex life under control is necessary for electoral success.

(d) John thinks that PRO getting his resume in order is crucial and Bill does too.

(e) John_i told Mary_j PRO_{i+j} washing themselves/each other would be fun.

(f) The unfortunate believes that PRO getting a medal would be boring.

(Hornstein, 1997:4)

(13a) shows that NOC PRO does not require an antecedent unlike what we have seen in (12a). (13b) illustrates that if NOC PRO has an antecedent, it does not need to be local in contrast to (12b). (13c) indicates that the antecedent does not need to c-command PRO. In (13d) a strict reading of the elided VP is possible. Thus, it contrasts with (12d) in permitting a strict reading of the elided VP, that is, in (13d) we get the reading "Bill thinks that getting John's resume in order is crucial." (13e) shows that NOC PRO allows split antecedents, which is not possible in (12e). (13f) indicates that

non-*de se* interpretation is available for NOC PRO with respect to the matrix subject because the unfortunate believes that getting a medal would be boring for an individual in general rather than himself.

2.2.3. Interim Summary

Before we move on to the next section, it might be useful to summarize the major points we have covered so far. As the discussion above presents, typically PRO is found in the subject position of infinitival clauses and is assumed to have the feature combination [+Anaphor, +Pronominal]. Given that PRO is [+Anaphor, +Pronominal], it is subject to both Principle A and Principle B, meaning that it is supposed to be both bound and free in its governing category. Since PRO cannot be subject to contradictory requirements, it is assumed to be licensed when it is ungoverned.

In the section above, the properties of PRO in different types of control structures were described. It was noted that in general, PRO is assumed to have two main types, namely OC PRO and NOC PRO, which are reminiscent of Equi and Super Equi that were described by Grinder (1970), among others in the earlier forms of the Generative Framework. Then a number of properties of OC PRO and NOC PRO were listed. In the examples, (11) through (13), it was shown that OC PRO and NOC PRO exhibit different properties and contrast in terms of the control environments in which they can appear.

2.3 Theoretical Background for Raising Structures

As seen in sentences (3) and (4), Hornstein's recent proposal Movement Theory of Control (MTC) (1999), which has been adopted in subsequent work of Boeckx and Hornstein (2003, 2004), "minimizes" the distinction between control and raising structures. In the following section, in order to lay the background for Hornstein's MTC, with which the distinction between raising and control has become less important, we will take a look at how raising structures are analyzed within the GB framework and then discuss how control and raising structures are distinguished in the same framework.

2.3.1. Raising in GB

As we noted earlier, Raising refers to a specific instance of A-movement, whereby an NP moves from the subject position of an uninflected embedded clause to an argument position in the matrix clause, where it can get Case. Raising has two main types: Subject-to-subject and Subject-to-object raising. In the following section, we will look at these two types of raising constructions in detail.

2.3.1.1. Subject-to-subject Raising

In "subject-to-subject raising,'" the subject of an embedded non-finite clause moves to [Spec, TP] of the matrix clause to get nominative case. (14) below is an example of Subject-to-subject raising:

(14) John$_i$ seems [t_i to be happy] (Subject-to-subject raising)

In (14), "John" is assumed to raise to the subject position of the verb "seems." Within the GB framework, (14) is analyzed as a subject-to-subject raising construction because of the theta properties of the predicate "seem." "Seem" is considered to be a typical raising verb in that it does not assign an external thematic role to its subject. As observed by Postal (1974), among others, it is possible to insert into the subject position of a raising predicate an expletive or pleonastic subject, such as "it," which is only allowed in non-thematic positions:

(15) It seems that John is happy.

The grammaticality of (15) shows that the raising predicate "seem" does not assign an external subject case. This means that the specifier of the raising construction is empty and is available for case checking. Thus, (16) is assumed to be the underlying structure for (14):

(16) _____ seems [John to be happy].

What (16) means is that "John" is assigned the thematic role experiencer as the subject of "to be happy," and then it moves to the subject position of the matrix predicate "seem" to check case and EPP.

A further test, which is commonly used and taken to be a strong evidence for NP movement in Subject-to-subject raising constructions is the interaction of raising predicates with idiomatic expressions, as illustrated with the idiomatic expression "the cat is out of the bag" in (17). This expression gets its idiomatic meaning when the

expression remains as a whole. For this reason, the subject of the idiom must be local to the rest of the idiom at some point in the derivation so that the idiomatic expression can retain its meaning. Now let us look at the interaction of this idiomatic expression with the raising predicate "seem."

(17) The cat seems to be out of the bag.

(18) The cat_i seems [t_i to be out of the bag].

As we observe in (17), the idiomatic expression can retain its meaning "the secret is widely known," with the raising predicate "seem" because (17) has the underlying structure in (18), whereby "the cat" starting out as the subject of the embedded clause is local to the rest of the idiom. Within GB, this was believed to be a strong piece of evidence showing that the subject of the embedded clause "the cat" is underlyingly within the embedded clause, but then occupies its surface position only after it undergoes movement for Case and EPP.

2.3.1.2. Subject-to-Object Raising

In the second type of raising, which is called "Subject-to-object raising," the subject of an embedded clause moves to the complement position of the verb in the matrix clause to get accusative case as illustrated in (19):

(19) John wants[1] me_i [t_i to be happy]

[1] In sentence (2), "want" appears as a control predicate and in (19) as a raising predicate. This is due to the fact that "want" can be both a control and a raising predicate. Sentences (2) and (19) can be distinguished by applying some

Rosenbaum's (1967) work, which was one of the early works on Raising, provides Standard Theory analysis of Subject-to-object raising structures. In Rosenbaum's treatment of raising, the underlying subject status of the NP in question is confirmed by the fact that the existential "there" and idiom chunks with the embedded clause can appear in this position. Therefore, (20) and (21) below contrast with (22) and (23), which are instances of NP+S complementation. In (20) and (21), we have the raising predicate "believe" contrasting with (22) and (23), which have the control predicate "force":

(20) I believe there to be a man in the garden.

(21) I believe advantage to have been taken of John.

(22) * I forced there to be a man in the garden.

(23) * I forced advantage to have been taken of John.

(Lasnik & Saito, 1991:325)

Postal (1974) recognizes two empirical properties for the higher object status of the moved element in Subject-to-object raising structures: (i) the possibility of applying passive to the subject of the complement clause and (ii) the grammaticality of anaphors (e.g., reflexives and reciprocals) in the subject position of the complement. As Davies and Dubinsky (2004) point out, the following data, from Postal (1974:40-42), illustrate these traditional arguments:

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tests such as assignment of thematic roles and interaction with idiomatic expressions, which will be presented at the end of this chapter.

(24)(a) Jack believed (that) Joan was famous

(b) *Joan was believed (that) Joan was famous by Jack

(c) Jack believed Joan to be famous

(d) Joan was believed to have been famous by Jack

(25)(a) $Jack_i$ believed (that) he_i was immortal

(b) *$Jack_i$ believed (that) $himself_i$ was immortal

(c) $Jack_i$ believed $himself_i$ to be immortal

(d) *$Jack_i$ believed him_i to be immortal (Postal, 1974:22-25)

The embedded subject "Joan" in (24c) is passivized in (24d). This is not possible when the complement clause is finite as can be seen in (24b). Similarly, the embedded subject of (25c) must be an anaphor if it has the matrix subject as its antecedent. When the complement clause is finite, however, as in (25a) and (25b), it must be pronominal.

On the basis of examples discussed above, Postal (1974) proposes a rule-based derivation for Subject-to-object raising structures as in (25c). In this rule-based derivation, "Joan" moves out of the underlying complement subject position into the matrix object position, as illustrated in (26):

(26) D-structure: Jack believed [Joan to be famous]

S-structure: Jack believed $Joan_i$ [t_i to be famous]

Another argument that Postal uses to support the Subject-to-object raising analysis is based on adverbs. Postal argues that a sentential adverb modifying the matrix

clause cannot be inserted in a finite complement clause. This indicates that NP+infinitive complement of verbs like "believe" and "expect" does not behave as a single constituent. Sentences (27) and (28) illustrate this point:

(27) (a) I believed that Nixon, foolishly, was interested in ending the war.

(b) I believed Nixon, foolishly, to be interested in ending the war.

(28) (a) I have found that Bob recently has been morose.

(b) I have found Bob recently to be morose.

(Davies&Dubinsky, 2004:34)

According to Postal, if we assume that a sentential adverb cannot be inserted into a finite complement clause, the sentences in (27) and (28) argue for the raising analysis by showing that the NP+infinitive string does not form a clausal constituent. The lack of ambiguity in (27a) and (28a) follows from the fact that "foolishly" is inside the sentential complement of "believe" and thus cannot modify the matrix predicate from this position. On the other hand, the ambiguity of (27b) and (28b) is because of the fact that the NP "Nixon" and "Bob" respectively raised out of the complement clauses into the object positions of the matrix clauses. Thus, Postal claims that the ambiguity of (27b) and (28b) provides an argument for a Raising analysis.

Note that in the literature, Subject-to-object raising constructions have also received a different analysis, whereby no NP movement was involved in the derivation. In this analysis, instead of raising the subject of the embedded clause to the object position of the matrix clause, the subject was left inside the embedded clause and the

matrix verb was allowed to "exceptionally" case mark the subject of the non-finite embedded clause (Chomsky 1981 among others) in situ. Therefore, in this analysis, such constructions were referred to as "Exceptional Case Marking" (ECM)[2] constructions.

However, in the early 1990s, with the shift from GB to Minimalism, Postal's previous subject-to-object raising analysis was revived. Lasnik and Saito (1991) was one of the first studies to re-introduce the raising-to-object analysis for ECM structures.

Lasnik and Saito give the following example to show that the infinitival subject undergoes raising to a position higher than the matrix VP:

(29) The DA proved the defendants$_i$ [t_i to be guilty] during each other$_i$'s trials.

(Lasnik&Saito, 1991:328)

Lasnik&Saito contend that in (29), the defendants cannot bind the reciprocal "each other." Therefore, it is expected to violate Condition A of the Binding Theory, which states that anaphors must be bound in their governing category. The fact that it does not violate Condition A of the binding theory should be taken as evidence for the movement of "the defendants" into a position outside of VP for Case checking. Lasnik&Saito claim that "the defendants" raises to Spec, AgrOP of the matrix clause to check case at LF. Thus, from its position in Spec, AgrOP, "the defendants" c-commands and binds the reciprocal "each other" in satisfaction of Condition A. However, the embedded subjects of raising structures contrast with the embedded subjects of tensed complement clauses in terms of antecedent-anaphor relations as illustrated in (30):

[2] We should note that the main focus of this thesis will be on the Subject-to-Object Raising/ECM constructions due to the special attention that has been paid to these constructions in the literature on Turkish raising.

(30) ?* The DA proved [that the defendants were guilty] during each other's trials.

According to Lasnik&Saito, the relative unacceptability of (30) in contrast to (29) shows that the subject of the finite complement clause cannot move high enough in the structure to bind the reciprocal "each other" in the matrix VP. Lasnik and Saito claim that this strongly suggests that in (29) the infinitival subject moves into the matrix AgrOP for accusative Case checking and comes into a position from where it can bind the reciprocal "each other."

2.3.2 Control vs. Raising

In the previous sections, we looked at the traditional analyses of control and raising structures within the GB framework. Now we will take a look at the tests that have been used to distinguish control from raising structures. In order to do that, let us first start by discussing the derivation of the following sentences, which look similar to one another on the surface:

(31) Alex seems to understand the distinction between raising and control.

(32) Alex tries to understand the distinction between raising and control.

Although sentences above look very similar on the surface, they are assumed to have different derivations within the GB framework, Traditionally, (31) has been analyzed as a raising structure whereas (32) has been analyzed as a control structure.

As noted by Davies and Dubinsky (2004), in GB, the distinction that was assumed to exist between control and raising structures was based on a number of tests. These tests include assignment of thematic roles, interaction with pleonastic subjects, with idioms and with embedded passive complement clauses as well as selectional restrictions. Let us look at these tests in more detail as we will come back to these tests in the analysis of Turkish raising structures:

a) Assignment of thematic roles

As noted before for sentence (14), the thematic properties of raising predicates such as "seem" have been taken as evidence for NP movement in raising structures and used as a test to distinguish control and raising structures. As an example, let us reconsider the sentences (31) and (32) in terms of the thematic properties of the predicates.

In (31), "Alex" is assigned the thematic role experiencer as the subject of "understand." On the other hand, in (32), unless we posit a null category, "Alex" would be assigned two theta roles, namely experiencer of the verb "understand" and agent of "try" in violation of the theta-criterion. This means that if the matrix predicate assigns an external theta role as in the case of "try" then what we have is not a raising structure but a control structure.

b) Pleonastic subjects

Another test used to distinguish raising and control predicates is the interaction of raising and control verbs with pleonastic subjects such as "there" and "it." As we have seen earlier in sentence (15), raising predicates allow pleonastic

subjects. Let us look at the following sentence pairs to compare the interaction of raising and control predicates with pleonastic subjects:

(33) a. It seemed to be raining.

b. There seems to be a unicorn in the garden.

(34) a. *It tried to be raining.

b. * There tried to be a unicorn in the garden.

(Davies&Dubinsky, 2004:7)

In the sentences above, (33a) and (b) are grammatical, whereas (34a) and (b) are ungrammatical. This follows from the fact that the control verb "try" assigns a thematic role to its subject and this role cannot be assigned to pleonastic elements such as "it" and "there," as they are semantically vacuous.

c) Interaction with idioms

In the discussion of subject-to-subject raising, in (17) and (18) we have seen that with raising predicates idiomatic expressions can retain their meaning. Now let us consider the following sentence pairs to see how raising and control structures differ in terms of their interaction with idiomatic expression:

(35) a. The cat seemed to be out of the bag.

b. ? The cat tried to be out of the bag

(Davies&Dubinsky, 2004:8)

(36) a. Sevgi believed the cat to be out of the bag by now.

b. ?Sevgi persuaded the cat to be out of the bag.

In the examples above, the grammaticality of (a) sentences shows that the idiomatic expressions can retain their meaning with raising verbs such as "believe" and "seem." On the other hand, the ungrammaticality of (b) sentences follows from the fact that with control predicates, the idiomatic expression is no longer possible. This implies that the NP "the cat" and the predicate "to be out of the bag" do not form an idiomatic constituent at a relevant level of representation.

d) Interaction with embedded passive complements

A further test used to distinguish raising and control structures is their interaction with the embedded passive complements. In raising verbs such as "seem," a sentence with an embedded passive complement is synonymous with the same sentence with an active complement. This is not possible in the case of the control verbs like "try" as can be seen in the following sentences:

(37) a. Barnett seemed to have read the book.

b. The book seemed to have been read by Barnett

(38) a. The doctor tried to examine Tilman.

b. Tilman tried to be examined by the doctor.

(39) a. Barnett tried to read the book.

b. *The book tried to be read by Barnett.

(Davies & Dubinsky, 2004:5)

In (37), the sentences with the raising verb "seem," that is to say, (a) which has an active complement, and (b) which has an embedded passive, are semantically paraphrases of each other. On the other hand, as noted by (Davies & Dubinsky, 2004), (38a) and (38b) are not paraphrases of each other. In (38a), it is the doctor who attempts the examination while in (38b), being the agent of "try," it is Tilman, who attempts the examination, indicating that with control verbs such as "try" the active and passive counterparts are not synonymous. (39b) shows that with control verbs like "try," it is not possible to passivize the embedded sentence if the object of the embedded clause is something inanimate like a "book," indicating that control and raising structures also differ in terms of their selectional restrictions as we will see in the next part.

e) Selectional restrictions

Selectional restrictions of raising and control structures can also be used to distinguish the two structures. The following sentences exemplify the difference between raising and control structures in terms of their selectional restrictions:

(40) The diamond seems to be fake.

(41)*The diamond tried to be fake.

Sentence (40) is grammatical while (41) is ungrammatical. The ungrammaticality of sentence in (41) follows from the selectional restrictions of "try." The control predicate "try" assigns the agent role to its subject and "the diamond" cannot satisfy this role. On the other hand, the raising verb "seem" does not assign an agent role to its subject therefore the sentence (40) is grammatical with the inanimate subject "the diamond".

2.4 Conclusion

In this chapter, we first looked at general properties of PRO. We said that within GB, PRO is assumed to be [+Anaphor, +Pronominal] indicating that it is supposed to be both bound and free in its governing category. Since PRO cannot be subject to these two contradictory requirements, it is assumed to be licensed when it is ungoverned. After looking at the properties of PRO, we also listed properties of two main types of control, namely OC and NOC. We noted that OC and NOC exhibit different properties and contrast in terms of control environment in which they can appear.

Then, we looked at the traditional analyses of raising structures, which form the origins of the distinction between raising and control structures. We saw that starting from the earlier works in Generative Grammar, such as Rosenbaum (1967) through some more recent work such as Lasnik and Saito's (1991), raising structures are believed to involve an NP movement while control structures have been analyzed through an in-situ null element, namely PRO. Within GB, the NP-movement analysis of raising structures along with the non-NP movement analysis of control structures has laid the basic distinction between raising and control.

This basic distinction has been supported by some traditional tests that have been used to distinguish the two structures. As we outlined in the previous section, on the basis of some empirical tests, control and raising structures are believed to differ with respect to (a) thematic role assignment, (b) interaction with pleonastic subjects, (c) interaction with idioms, (d) interaction with embedded passives and (e) selectional restrictions indicating that they are subject to different derivations. Thus, within GB, there seems to be a clear distinction between control and raising structures. In the following chapter, we will take a look at a different analysis by Hornstein (1999), which analyzes control structures as a kind of NP movement akin to raising structures eliminating the traditional distinction between these two structures.

CHAPTER 3

HORNSTEIN'S MTC AND TURKISH

3.1. Introduction

As discussed in detail in Chapter 2, the point where raising and control structures differ from one another in the GB framework is that raising structures involve an NP movement whereas control structures do not involve any kind of NP movement and instead are analyzed through the introduction of the null element PRO, as (1) and (2) illustrate respectively:

(1) $John_i$ is likely [t_i to see Mary]

(2) $John_i$ hopes [PRO to see Mary]

In (1) "John" is interpreted as the "seer" while in (2) "John" is interpreted as the "hoper" and the "seer." Thus, in the raising structure in (1) "John" bears one theta role while in the control structure in (2) "John" bears two theta roles. PRO in (2) is motivated by the theta-criterion since it is posited to satisfy the "seer" theta-role of "John."

Hornstein's (1999) Movement Theory of Control (MTC) questions this distinction between raising and control structures as well as the necessity of theta-criterion, which assumes that each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument (Chomsky, 1981). As discussed in Chapter 1, theta-criterion has been the basic motivation for positing PRO.

Hornstein proposes that theta-criterion should be abandoned and control should be analyzed as a kind of NP movement in the sentences above, which gives way to

associating a simple NP with multiple theta-roles. Therefore, in Hornstein's account, for the representation of sentence (2), instead of positing PRO, the external argument of the embedded predicate is argued to have raised leaving a trace behind as can be seen in (4):

(3) $John_i$ is likely [t_i to see Mary] $\Rightarrow$ Raising

(4) $John_i$ hopes [t_i to see Mary] $\Rightarrow$ Control as NP movement

In the following section, we will look at Hornstein's MTC in detail and then investigate the applicability of Hornstein's MTC to Turkish control structures as well as the implications of Turkish raising structures for MTC.

3.2. Hornstein's Movement Theory of Control (MTC)

As we discussed earlier, GB framework presupposes the existence of different levels of representations such as D-structure and S-structure. D-structure is the level that encodes the lexical properties of constituents. Within GB, D-structure is viewed as a projection of sub-categorization requirements of lexical items determined by their thematic structures. S-structure, on the other hand, is the level where the actual ordering of lexical elements and case-assignment take place. Thus, theta-criterion interacts closely with the generation of the D-structure, whereby lexical items are inserted with their thematic information.

PRO is motivated by the theta criterion because in a sentence like "John hopes to call Mary," we have the verb "call," which assigns two-thematic roles: agent (the caller) and theme (the calleé). However, in the surface structure of the sentence, we only see the

theme "Mary." Within GB, in order not to violate the theta-criterion PRO was proposed to satisfy the agent role of the verb "call."

The Minimalist Program assumes a "simpler" and a more economic model of grammar, whereby D-structure and S-structure are abolished (Chomsky 1993, 1995 and 1998). Hornstein (1999) contends that in addition to dispensing with D-structure and S-structure, the Minimalist Program should also aim to dispense with theory-internal elements such as PRO and the control module of the grammar, which is formulated to explain PRO. With this aim, Hornstein criticizes control theory, arguing that "control theory has not been one of the bright stars in the GB firmament" (Hornstein, 1999:72).

Hornstein (1999) also criticizes the null-case theory of PRO, saying that it suffers from some "inelegancies." As discussed in Chapter 2, Chomsky and Lasnik (1993) argue that PRO must be null-case marked, which is assigned by a non-finite T. In this way, PRO can satisfy the visibility condition, which requires that NPs become visible by means of Case in order to be assigned a theta-role. According to Hornstein, null-case theory is an ad-hoc theory-internal solution, which was designed only to prove the existence of PRO. Thus, Hornstein contends that PRO unnecessarily complicates the grammar by bringing grammatical baggage such as null case and control theory.

According to Hornstein, apart from the theoretical complications that it brings, PRO also presents a number of empirical problems. One of these problems is related to *wanna* constructions in English. As observed by Hornstein (1999) and in an earlier work by Jaeggli (1980), wh-traces block *wanna* contraction as they are case marked traces. Consider the following examples:

(5) Who do you want [*wh*-trace to vanish?]

*Who do you wanna vanish?

(6) John's going [NP-trace to leave].

John's gonna leave.

(7) I want [PRO to leave]

I wanna leave (Hornstein, 1999:75)

As seen in (5), the case-marked wh-trace blocks *wanna* contraction whereas the NP-trace, which is assumed to be non-case marked allows contraction as exemplified in (6). Interestingly the control structure in (7) allows *wanna* contraction patterning with the NP-trace in (6) rather than the case-marked wh-trace. In these examples, as Hornstein rightfully points out, if PRO were case marked as Chomsky and Lasnik (1993) suggest in the null-case theory, it would pattern with wh-trace and block *wanna* contraction. Therefore, Hornstein contends that null case analysis is not compatible with PRO.

According to Hornstein, a further problem that PRO presents is that there are cases of control where PRO is in a position other than [Spec, IP], which is the environment for PRO to be licensed according to Chomsky and Lasnik's null case theory. As an example of an occurrence of PRO in a position which is not [Spec, IP], Hornstein gives the following sentence:

(8) $John_i$ washed/dressed/shaved (PRO_i/$himself_i$)

(Hornstein, 1999:77)

Hornstein assumes that the predicates in (8) take PRO as their complement. He contends that cases like (8) are problematic since they show that PRO can appear in case marked positions other than [Spec, IP], indicating that Chomsky and Lasnik's Null-case Theory of PRO is incomplete.

Based on the theoretical and empirical problems presented above, Hornstein (1999) concludes that PRO is a theory-internal construal, the existence of which is not in line with the economy considerations of the Minimalist Framework. Therefore, he dispenses with PRO as well as the control module, which governs the distribution of PRO. Instead, he proposes a new account of control, whereby control is analyzed as a product of movement and the traditional distinction between control and raising is minimized, as represented in (4) repeated below for convenience.

(4) $John_i$ hopes [t_i to see Mary] $\Rightarrow$ Control as NP movement

The representation in (4) brings a radical change with respect to Theta Criterion. In order to dispense with theta-criterion, Hornstein claims that theta roles are features and that there is no upper bound limit on the number of theta roles an NP can check. He argues that if theta roles are features and if a chain can carry more than one theta role, then there is no reason to distinguish PRO in control structures from an NP-trace in raising structures. Thus, Hornstein proposes that PRO is "simply a residue of movement, simply a product of copy and deletion operations that relate two theta-positions" (Hornstein, 2001:37).

This proposal further implies that there is no need for "null case." The subject position of the infinitive is caseless and control essentially indicates raising to a theta-position for case. In parallel to Subject-to-Subject Raising and Subject to Object Raising in English, control constructions can target either the subject or the object position yielding the subject/object control in GB.

In Hornstein's movement account of control, the only difference between control and raising structures is that PRO is coindexed with a theta-marked position while an NP-trace in a raising structure is coindexed with a non-theta position. This is illustrated below in the control structure in (9) and in the raising structure in (10), the respective derivations are given in the (b) sentences by utilizing copy and merge within Hornstein's MTC:

(9) a. John hopes [PRO to be happy] (GB representation)

b. [$_{IP}$ John [$_{VP}$ ~~John~~ hopes [$_{IP}$ ~~John~~ to [$_{VP}$ ~~John~~ be happy] (MTC representation)

(10) a. John seems [t_i to be happy] (GB representation)

b. [$_{IP}$ John [$_{VP}$ seems [$_{IP}$ ~~John~~ to [$_{VP}$ ~~John~~ be happy] (MTC representation)

In the derivation of the control structure in (9b), John merges with "be happy" and checks the non-verbal predicate's theta role, and then moves to [Spec, IP] to check the D feature of the lower IP. After the lower IP, it moves to the Spec of the higher VP to check the theta role of the verb "hope," then it moves to the Spec of the higher IP to check its own case. As we can see in the derivation of the control structure in (9b), Hornstein's account allows "John" to have multiple theta roles. The derivation of the raising structure

in (10b) is similar to that of (9b). The only difference between the two derivations is that in (10b) "John" does not have a copy in the Spec of the higher VP since the raising verb "seem" has no external subject theta role.

For the choice of controller in control structures, Hornstein (1999) contends that OC PRO is subject to Minimal Distance Principle (MDP) or the Minimal Link Condition (MLC) in the minimalist framework. MDP, which was formulated in Rosenbaum (1967), stipulates that the DP closest to PRO must be the controller. [3] The MLC correctly predicts subject control in (11a) and object control in (11b). However, as noted by Landau (2003), it fails to predict object control in (11c) with *promise*-type of control predicates:

(11) a. John wanted to leave.

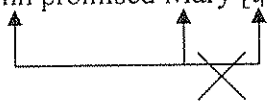
b. John persuaded Mary to leave.

c. John promised Mary to leave. (Landau, 2003:480)

(12) a. John wanted [t_i to leave].

b. John persuaded Mary [t_i to leave].

c. John promised Mary [t_i to leave].



In (11c), we would expect "Mary" to be the controller since it is closer to PRO, but the controller is "John." In order to explain why MDP fails to predict the controller in

[3] Idan Landau criticizes Hornstein for assigning the choice of controllers to formal locality conditions by disregarding other factors such as semantic and pragmatic factors. For a detailed discussion of Landau's criticism, please see Landau (2003) and Boeckx & Hornstein's (2004) reply to Landau (2003).

(12c), Hornstein treats *promise*-type verbs as exceptions along the lines of Rosenbaum (1967), Bach (1979), Bach&Partee (1980) and Larson (1991) (cited in Hornstein, 1999).

Hornstein accounts for the distribution of OC PRO in Case Theory by positing that OC PRO appears where case is unavailable, typically at [Spec, IP] of non-finite clauses. An example of OC PRO can be seen in subject control into adjunct structures as illustrated in (13):

(13) a. John heard Mary without entering the room.

b. [$_{IP}$ John [$_{I}^{\circ}$ past [$_{VP/VP}$ [$_{VP}$ John [heard Mary]] [$_{Adjunct}$ without [$_{IP}$ John [$_{I}^{\circ}$ ing [$_{VP}$ John [entering the room]]]]]]]]

(Hornstein, 1999:89)

In (13b), first the adjunct is built by merging "the" with "room" and then "entering" with "the room," and "John" with "entering the room." In the matrix clause, "Mary" merges with "heard" and checks its theta-role. Then, the adjunct is adjoined above the VP layer. Next, "John" is raised from adjunct clause to the matrix spec VP to check the external theta role of "heard." Then it moves to matrix [Spec, IP] to check the nominative case. What is important in this derivation is that the adjunct clause is merged above the VP layer indicating that the object fails to c-command the adjunct clause, which then explains why only subjects can control into adjunct clauses in English [4]

[4] One of the criticisms laid out in Culicover and Jackendoff (2001) is that Hornstein's account cannot adequately explain why "Mary" cannot be the controller. They claim that the thematic structure of the matrix predicate has the effect on the choice of the controller and that semantic constraints should be favored instead of a pure syntactic account to explain the choice of controller. For a detailed discussion of this criticism, please see Culicover and Jackendoff (2001) and, Boeckx and Hornstein (2003), which is a response to Culicover &Jackendoff's criticisms.

An important feature of OC PRO in Hornstein's proposal is that it requires non-split local antecedents because OC PRO is the residue of movement like an NP trace and a trace cannot have two antecedents simultaneously. We will come back to this point in the following section, while applying Hornstein's account to Turkish.

Hornstein argues that PRO is not simultaneously pronominal and anaphoric. It is pronominal in NOC and anaphoric in OC, which is different from the traditional treatment of PRO as [+anaphoric, +pronominal].

In his proposal, Hornstein claims that OC PRO is identical to NP-traces while NOC PRO is identical to the null pronominal analogous to the null pronouns found in Romance and East Asian languages. For instance, Italian is a language which has rich agreement morphology. Therefore, the possibility of null-pronominal is explained through rich inflectional morphology,[5] whereby the content of null-pronominal is recovered and the pronominal subject may remain unexpressed as illustrated in (14):

(14) a. Gianni ha parlato.

Gianni has spoken

b. *pro* Ha parlato.

Has spoken.

(Haegeman, 1994)

[5] It is important to note that according to Huang (1984) Chinese allows null subjects although it lacks AGR entirely. The same observation holds for Japanese and Korean as well. Huang (1984) shows that *pro* is possible not only in languages with rich agreement but also in languages like Chinese, which does not show any agreement at all.

According to Hornstein, NOC PRO is similar to a null-pronominal like the one found in Italian in (14b). Therefore, in Hornstein's MTC, NOC can be replaced with *pro* as in (15b):

(15) a. [NOC PRO] Swimming is healthy ⇒ GB Analysis of NOC PRO

b. *pro* Swimming is healthy ⇒ NOC PRO = *pro* in MTC

As said before, for NOC, Hornstein claims that NOC PRO is identical to *pro* or the null pronominal commonly found in several Romance and East Asian languages. As for the distribution of NOC, Hornstein argues that NOC is the "elsewhere" case, meaning that NOC applies in all environments, such as in subject gerunds, where raising is impossible, as illustrated in (16) below:

(16) a. It is believed that Bill's/*pro* shaving is important.

b. *Bill's is believed that shaving is important.

(Hornstein, 1999:92)

In cases such as (16), a "last resort" operation saves the structure by inserting small *pro* instead of OC PRO since the movement is prohibited. This means that OC PRO and NOC PRO are in complementary distribution. OC PRO is possible when the movement is permitted while NOC PRO is possible "elsewhere" to save the structure. In other words, in Hornstein's account, NOC PRO acts like the "do-support" in English and comes into play to save the structure.

3.2.1. Interim Summary

In this section, we listed some theory internal problems in relation to the control theory and PRO as observed by Hornstein (1999). According to Hornstein, the main theoretical problems associated with PRO are related to theta criterion and to theory internal construals such as control theory and null case, which are formulated to explain PRO.

Hornstein (1999) argues that these theory internal constructions are ad-hoc solutions, which complicate the grammar and make the elimination of D-structure less radical within the Minimalist Program. As a solution to this "unnecessary complication," Hornstein proposes Movement Theory of Control (MTC), whereby theta-roles are seen as morphological features on verbs and control is treated as an instance of movement. Thus, Hornstein reduces control to movement and the difference between raising and control structures is minimized.

3.3. Properties of Control Structures in Turkish

Typically control structures in Turkish are formed with the infinitival –mAK as the following examples illustrate:

(17) a. Emel [PRO git-mek] ist-iyor
Emel go-Inf want-Prog-3S
"Emel wants to go"

b. Emel Kaya-yı [PRO sinema-ya gitme-ğe] ikna et-ti.
Emel Kaya-Acc cinema-Dat go-Inf-Dat convince-Pst-3S
"Emel convinced Kaya to go to cinema."

c. [PRO Koş-mak] sağlıklıdır

run-inf healthy

"To run is healthy"

In the sentences above, (17a) is an example of obligatory subject control and (17b) is an example of obligatory object control. (17c), on the other hand, illustrates arbitrary control. As we can see in these examples, control constructions in Turkish are formed by the infinitival –mAK. As pointed out by George&Kornfilt (1981), in Turkish agreement determines finiteness and -mAK structures appear in non-finite clauses, which do not bear agreement. Therefore, PRO typically appears in Turkish with –mAK structures, which are marked by the absence of agreement. In other words, Turkish control structures appear with the infinitival suffix –mAK and the absence of agreement serves as a demarcation for control structures.

Pro, on the other hand, appears in the subject position of matrix clauses and in embedded clauses formed with –yACAK, –DIK and –mA, which are marked with agreement as exemplified in the following sentences:

(18) a. *pro* gid-iyor-um.

go-Prog-1S

"I am going."

b. Öğretmen öğrenciler-e [*pro* alıştırmalar-ı çabuk bitir-me-leri-n-i]

teacher-Nom students-Dat exercises-Acc quickly finish-VN-Poss3P-Acc

söyle-di

tell-Pst-3S

"The teacher told students to finish the exercises quickly"

c. Öğretmen öğrenciler-in [*pro* alıştırmalar-ı çabuk bitir-dik-leri-n-i]

Teacher-Nom students-Poss3P exercises-Acc quickly finish-VN-Poss3P-Acc

söyle-di

tell-Pst-3S

"The teacher told that students finished the exercises quickly"

d. Öğretmen öğrenciler -in [*pro* alıştırmalar-ı çabuk bitir-ecek-leri-ni]

teacher-Nom students-Poss3P exercises-Acc quickly finish-VN-Poss3P-Acc

söyle-di

tell-Pst-3S

"The teacher told that students would finish the exercises quickly"

As we can see in the sentences above, the embedded clauses are formed with nominalizing suffixes –mA, DIK and –yACAK, which bear agreement marker signaling the presence of the null pronominal *pro*. This null pronominal is similar in nature to the one found in Italian in (14) and thus corresponds to NOC PRO under Hornstein's MTC.

After describing the environments where PRO and *pro* appear in Turkish, let us underline an important difference between Turkish and English control predicates. The

distribution of control predicates in Turkish differs from the one in English. Not all verbs that allow a control construction in English can be used with a control construction in Turkish. For instance, in English verbs such as *tell* and *notify* are typical examples of control predicates. Unlike English, in Turkish equivalents of these verbs such as *söyle* (tell) and *bildir-* (notify) etc. do not take control structures but take a finite complement clause where the verb is inflected for agreement as illustrated in the following examples (Taylan, 1996). Note that we will discuss the typology of verbs which can yield control constructions in detail in the next chapter:

(19) a. * Ben (PRO erken kalk-mağ)-ı bildir-dim/söyle-di-m.

b. Ben on-a (erken kalk-ma-sın)-ı bildir-dim/söyle-di-m.
I he-Dat early get up-VN-Poss3-Acc tell-Pst-1S
'I told him to get up early'

(Taylan, 1996:53)

As we can see in the above examples, in (19a), the structure turns out to be ungrammatical with the infinitival suffix –mAK while it is grammatical with the complement structure in (19b). Since in (19b) the complement clause bears agreement, what we have in sentence (19b) is not PRO but *pro* similar to (18a).

As a final note on Turkish control structures, we should point out that apart from the structures with –mAK, we observe control structures also in adjunct clauses, which do not allow agreement markers as the following example illustrates. Please note that we will look into examples of the adjunct control structures and the nature of empty elements in these structures in Chapter 5.

(20) Umut$_i$ Emel$_j$'i [PRO$_{i/j}$ gelme-den önce] ara-dı.

Umut-Nom Emel-Acc coming-Abl before call-Pst-3S

'Umut called Emel before coming'

3.4. Applicability of Hornstein's MTC to Turkish

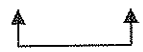
After outlining the environments, where we can find control structures in Turkish, let us consider the derivations of these structures under Hornstein's MTC:

(21) a. Kaya [PRO git-mek] ist-iyor.

Kaya-Nom go-inf want-Prog-3S

'Kaya wants to go'

b. Kaya [NP-trace git-mek] ist-iyor



(22) a. Kaya Emel'i [PRO gitme-ğe] zorla-dı.

Kaya-Nom Emel-Acc go-inf-Dat force-Pst-3S

'Kaya wants Emel to go'

b. Kaya Emel'i [NP-trace gitme-ğe] zorladı.

In the above sentences, (21) is an example of subject control and (22) is an object control structure. As we can see in (b) sentences, (21) and (22) can be represented with

NP-traces if we assume that an NP can check more than one theta-role according to Hornstein's MTC. In line with MTC, we can argue that in (21), *Kaya* originates in the subject position of *git-* "go," thus gets the agent theta-role and then moves to [Spec, IP] and checks the experiencer theta-role of *iste-* "want." In the same way, we can claim that in (22), *Emel* originates in the subject position of *git-* "go," satisfying its agent theta role and then moves up to matrix VP to check the theme theta role of *zorla-* "force." Thus, in Turkish, too, it is possible to derive subject and object control structures via Subject-to-subject and Subject-to-object raising, respectively.

Therefore, we can argue that Hornstein's proposal can account for simple Turkish subject and object control cases. However, as we will see in the following sections, other instances of control such as split antecedents in control structures and co-indexation possibilities in adjunct clauses present counter evidence against Hornstein's MTC. In addition to this, the availability of partial control reading and implicit control reading, control structures that do not require c-commanding and non-obligatory nature of NP movement in Turkish raising structures present further evidence showing that Hornstein's account cannot be applied to Turkish. [6]

3.4.1. Split antecedents in Turkish control structures

As discussed earlier, Hornstein argues that since OC PRO is the residue of movement and since the same trace cannot have two antecedents, in English the occurrence of OC PRO is not possible with split antecedents, as can be seen in (23):

[6] One of the strongest arguments of Hornstein's MTC is that PRO patterns with NP-traces in allowing *wanna* contraction as discussed in Section 3.2. Unfortunately, we do not have the possibility of testing this argument in Turkish. Being an agglutinative language, Turkish does not exhibit these kinds of contractions because in Turkish, -mAK infinitival marker appear on the verb, and the verb and the infinitival marker are not free morphemes but bound morphemes.

(23) a. *John$_i$ told Mary$_j$ [PRO$_{i+j}$ to wash each other]

(Hornstein, 1999:73)

b. *John$_i$ told Mary$_j$ [PRO$_{i+j}$* to leave together]

(Hornstein, 2001:31)

Hornstein argues that the ungrammaticality of the sentences (23a) and (23b) follows from the fact that OC PRO cannot have split antecedents. However, if we look at Turkish counterparts of these sentences, we see that OC PRO in Turkish control structures allow split antecedents:

(24) a. Kaya$_i$ Emel$_j$'i [PRO $_{i+j}$ birbirlerini yıka-ma-ğa] ikna et[7]-ti.

Kaya-Nom Emel-Acc each other wash-Inf-Dat convince-Pst-3S

'Kaya convinced Mary to wash each other'

b. Kaya$_i$ Emel$_j$'i [PRO$_{i+j}$ birlikte sözdizim çalış-ma-ğa] ikna et-ti.

Kaya-Nom Emel-Acc together Syntax study-Inf-Dat convince-Pst-3S

'Kaya convinced Mary to study Syntax together"

Howard Lasnik (personal communication) suggests that the possibility of split antecedents in Turkish might indicate the existence of two empty elements, one being OC

[7] As we discussed earlier, verbs such as *söyle-* (tell) does not take infinitival complement in Turkish. That is why, in this sentence, we used the verb *ikna et-* (convince) instead of *söyle-* (tell).

PRO and the other one being small *pro*,[8] which Hornstein equates with the NOC PRO. If we analyze sentence (24b) in line with H. Lasnik's suggestion, we get (25):

(25) Kaya$_i$ Emel$_j$'i [PRO$_j$ (*pro*=onunla)$_{i/k}$ birlikte sözdizim çalış-ma-ğa]
Kaya-Nom Emel-Acc together Syntax study-Inf-Dat
ikna et-ti.
convince-Pst-3S
'Kaya convinced Emel to study Syntax together"

As seen in (25), we can posit PRO, which is controlled by "Emel" and *pro*, which can refer either to "Kaya" or some other person such as "Umut." Hornstein (1999) argues that structures with *pro* are NOC structures. He also argues that OC PRO and NOC PRO are in complementary distribution so we do not expect them to appear in the same position. The co-occurrence of OC PRO and NOC PRO in (25) does not constitute a counter-argument for this point since in this sentence OC PRO is in the subject control position while NOC PRO *onunla* (with him/her) is not. Therefore, in line with Howard Lasnik's suggestion, we can account for sentence (25) by positing PRO and *pro*, which are in complementary distribution.

However, there are other cases of control in Turkish, in which OC PRO allows a split antecedent reading without recourse to positing a null pronominal as exemplified in (26b) and (26c):

[8] It is important to note that Professor Lasnik's suggestion was not in regard to this particular example but in general about the possibility of split antecedents in Turkish control structures. However, we believe that his suggestion can be extended to the sentence (25b) since it exemplifies the possibility of split antecedents in Turkish control structures.

(26) a. Kaya$_i$ Emel$_j$'i artık [PRO$_{i+j}$ birbirleri-ne sataş-ma-ma-ğa]

Kaya-Nom Emel-Acc any more each other-dat annoy-neg-dat

ikna et-ti.

convince-Past-3S

'Kaya convinced Emel not to annoy each other any more'

b.* Kaya$_i$ Emel$_j$'i artık [PRO$_i$ (*pro*=onunla)$_j$ birbirleri-ne sataş-ma-ma-ğa]

Kaya-Nom Emel-Acc any more with him/her each other-Dat annoy-Neg-Dat

ikna et-ti.

convince-past-3S

'Kaya convinced Emel not to annoy each other any more'

c.* Kaya$_j$ Emel$_i$'i artık [PRO$_j$ (*pro*=onunla)$_i$ birbirleri-ne sataş-ma-ma-ğa]

Kaya-Nom Emel-Acc any more with him/her each other-dat annoy-neg-dat

ikna et-ti.

convince-past-3S

'Kaya convinced Emel not to annoy each other any more'

In the example above in (26a), we have the reciprocal *birbirlerine* "each other," which requires a plural antecedent. However, in (26a) it is not possible to think that there are two empty categories, one being PRO and the other one being the null pronominal "*pro*=onunla" (with him/her), which can act as the antecedent of "each other," because the existence of *onunla* (with him/her) in the sentence renders the sentence ungrammatical as in (26b) and (26c).

Thus, the split antecedent reading in (26a) provides counter evidence for Hornstein's MTC. A split antecedent reading such as the one in (26a) should be banned strictly under Hornstein's account if the empty elements in the complement clause were true NP-traces created by movement since the same NP-trace cannot have two distinct antecedents.

3.4.2 Co-indexation possibilities in Turkish

Apart from "split antecedents," another structure discussed in Hornstein (1999) is related to the coindexation possibilities in adjunct clauses. Hornstein argues that adjunct clauses merge above the VP layer and thus the object fails to c-command the adjunct clause. The implication of this argument is that the object and the null element in the adjunct clause cannot be coindexed as illustrated in (27):

(27) John$_i$ heard Mary$_j$ [before PRO$_{i/j*}$ leaving the room]

(Hornstein, 1999: 88)

Let us compare this to (28) and (29) to check its applicability to Turkish adjunct clauses, which exhibit control structures:

(28) Kaya$_i$ Emel$_j$'i [PRO$_{i/j}$ oda-dan çıkma-dan önce] duy-du.

Kaya-Nom Emel-Acc room-Abl leaving-Abl before hear-Pst-3S

'Kaya heard Emel before leaving the room'

(29) Kaya$_i$ bebeğ-i$_j$ [PRO$_{i/j}$ uyuma-dan önce] öp-tü

Kaya-nom baby-Acc sleeping-Abl before kiss-Pst-3S

'Kaya kissed the baby before sleeping'

In sentence (28) both "Kaya" and "Emel," and in sentence (29), both "Kaya" and "bebek" can be coindexed with the null element in the adjunct clause posing a counter argument for Hornstein's proposal.[9]

3.4.3 Availability of Partial Control (PC) in Turkish

Landau (1999) introduces a new typology of control, which we will elaborate on later in Chapter 4. This new typology includes a new type of control, which Landau labels as "Partial Control (PC)," showing that the majority of control verbs are PC type verbs in English. Landau defines PC as the type of control in which the reference of PRO does not need to be exhausted by the reference of the controller found in the clause, as illustrated in the following sentence:

(30) The chair preferred [PRO$_{1+}$ to meet at 6].

(Landau, 2000:14)

In (30), PRO$_{1+}$ indicates that there is partial control reading whereby the reference of PRO includes "the chair, " plus some other entities that the speaker has in

[9] Assuming that (28) and (29) are instances of NOC, Hornstein (1999) might account for adjunct clauses in (28) and (29) since split antecedents are possible in NOC PRO cases. However, Hornstein's proposal still requires an explanation to account for how and why NOC PRO is possible in Turkish adjunct clauses since he posits that where applicable "adjunct control structures pattern like structures of obligatory control" (Hornstein, 2001:47).

mind. In other words, what the speaker has in mind as the reference of PRO is not only "the chair" but also a group of other people including "the chair" himself.

As noted by Landau (2003), partial control provides counter evidence against Hornstein's MTC because along the lines of MTC, it is not clear "how to formulate a rule of NP movement that would yield a chain with non-identical copies" (Landau, 2003:493).

In this respect, Turkish exhibits Partial Control structures which support Landau's argument:

(31) Başkan [PRO_{1+} 6'da buluşma-yı] iste-di.

The chair-Nom 6-Loc meet-Acc want-Pst-3S

"The chair wanted to meet at 6"

In (31), the reference of the controller is not only "başkan" (the chair) but also some other people, probably a group of employees working in the company. Thus, (31) is parallel to Landau's example in (30) in the sense that within Hornstein's MTC, it is not possible to treat (31) as an instance of NP movement since (31) exhibits a chain with non-identical copies. Therefore, the possibility of Partial Control in Turkish presents another piece of evidence against Hornstein's MTC.

3.4.4 Implicit Control in Turkish

Implicit Control provides us with another testing ground for the applicability of MTC to Turkish. Implicit Control is defined as the type of control whereby the controller remains implicit, thus morpho-syntactically unavailable within the clause. As an example of Implicit Control, Landau (2003) gives the following example:

(32) a. John said (to the visitors) to return later.

b. John shouted (to the visitors) to return later

(Landau, 2003:478)

In line with Rizzi (1986), Landau (2003) argues that in (32), the implicit dative controllers cannot be represented syntactically and that "the visitors" cannot be treated as an instance of *pro*. According to Landau, the sentence in (32) poses counter evidence against Hornstein's MTC because Hornstein's theory predicts that the controller would be *pro* in (32). As a reply to Landau (2003), Boeckx&Hornstein (2004) argue that implicit controllers are represented syntactically and that they should be represented as *pro* (Boeckx&Hornstein, 2004:439).

As noted by Landau (2003) and Boeckx&Hornstein (2004), no agreement has been reached concerning the proper analysis of implicit dative controllers such as the one above. For this reason, we will consider a different example of implicit control in Turkish:

(33) Ev [*ec* sigorta-dan para al-mak için] yak-ıl-mıştı. Sonunda
house-Nom insurance-Abl money take-inf in order burn-Pass-PstPerf In the end
suçlular yakala-n-dı.
criminals arrest-Pass-Pst
"The house was set on fire to collect money from the insurance (company). In the end, criminals were caught"

In the example above, by looking at the second sentence, we know that the controller of the empty category in the first sentence is *suçlular* (criminals) indicating that this is an instance of OC. However, if we treat (33) as an instance of movement in line with MTC, we do not have a controller in the first sentence, which means the first part of the chain is missing. As discussed earlier, the existence of the infinitival –mAK in the first structure and the absence of agreement indicates that the empty category in (33) cannot be represented as *pro*. Thus, (33) poses a counter argument against Boeckx& Hornstein (2004), who argue that implicit controllers should be represented as *pro*.

(34) Ev [PRO$_i$ sigorta-dan para al-mak için] ~~suçlular tarafından~~ yakı-l-mıştı.
house-Nom insurance-Abl money take-Inf in order to criminals by burn-Pass-PstPerf
"The house was set on fire by criminals to collect money from the insurance company)"

Please note that it is not possible to argue that the OC reading in (33) is available because the by phrase including *suçlular* (criminals) was dropped, as shown in (34). Even if this were the case, Hornstein's MTC would still not be able to account for (33) because the antecedent of the trace would not c-command the trace.

3.4.5 OC under Non c-command in Turkish

Both within the GB framework and in Hornstein's MTC, it is assumed that the controller in OC must c-command PRO. However, Landau (1999) argues that c-command is not required for OC to be established, as the following example illustrates:

(35) Yesterday, it spoiled Mary's$_i$ mood [PRO$_{i/*arb}$to listen to the news].

(Landau, 1999: 43)

In (35), the controller of "Mary" is embedded inside the matrix object and does not c-command "Mary." However, we have OC reading since the controller of PRO can only be "Mary." Now let us consider the Turkish counterpart of the example above to see if we can extend Landau's argument to Turkish:

(36) Dün [PRO$_{i/*arb}$ haberler-i duymak] Emel$_i$'in can-ı-nı sık-tı.

Yesterday news-Acc hear-inf Emel-Gen mood-Poss-Acc spoil-Pst-3S.

"Yesterday it spoiled Emel's mood to listen to the news."

As we can see in (36), like the English example in (35), the controller "Emel" is embedded inside the matrix object and fails to c-command PRO. The sentence is still an example of OC PRO indicating that the controller of OC does not need to c-command PRO.

Under Hornstein's MTC, (35) and (36) are not OC structures because the controller "Mary" and "Emel" respectively are not local antecedents meaning that they do not c-command PRO. However, both (35) and (36) are instances of OC since the antecedent of PRO can only be "Mary" and "Emel" respectively. In other words, Hornstein's MTC cannot account for examples like (35) and (36), in which OC is licensed although the controller does not c-command PRO. We will come back to control under non c-command in Chapter 5.

3.4.6. Interim Summary

Hornstein's MTC is appealing because he proposes that control is an instantiation of movement and thus he dispenses with PRO, which was "constructed to exactly fit the observed facts" (Hornstein, 1999:70). However, we need to show the applicability of Hornstein's MTC cross-linguistically to find out if it can be attested within UG. With this aim, in the sections above, we first outlined Hornstein's MTC and then tried to test it in relation to Turkish control facts.

Based on our observations with respect to the applicability of Hornstein's proposal to Turkish, we can argue that Hornstein's MTC might account for simple subject and object control structures in Turkish. However, evidence from split antecedents, coindexation possibilities in adjunct clauses, availability of partial and implicit control, and OC reading under non c-command in Turkish challenges Hornstein's MTC. In the following section, we will look at what Turkish raising structures might imply for MTC since it will provide us with further evidence against MTC's applicability to Turkish.

3.4.7. Implications of Turkish Raising Structures for the Applicability of MTC to Turkish

In order to give a complete account of whether Turkish control constructions involve movement akin to raising, we also need to investigate if Turkish raising structures can be analyzed as instances of NP movement similar to the case in English. Therefore, apart from the data on Turkish control structures shown in the previous section regarding the application of MTC to Turkish, we will also look at the nature of raising/ECM structures and its implication for MTC.

As we noted in Chapter 2, structures such as the following are taken to be typical examples of Turkish raising structures:

(37) a. Kaya ban-a [t_i mutlu gibi] görün-üyor (Subject-to-Subject raising)

Kaya-Nom I.Dat happy like seem-Prog-3S

'Kaya seems to be happy'

b. Ben Umut-u [t_i git-ti] san-dı-m. (Subject-to-Object raising)

I-Nom Umut-Acc go-Pst-3S think-Pst-1S

"I thought that Umut left"

In the literature, for the treatment of Turkish raising structures like (37), there have been two main approaches. One of these approaches (Moore 1998, Z.Eroğlu 1997) argues for NP movement in raising/ECM structures while the second approach (Aygen 2002a, Öztürk 2005b) assumes that ECM structures do not involve raising of the embedded subject into the matrix clause.

Before we look at these two main approaches, we should note that raising and control constructions in Turkish exhibit different properties in terms of finiteness. George and Kornfilt (1981) argue that agreement morphology is the defining characteristic for finiteness in Turkish. George and Kornfilt (1981) state that unlike English, in Turkish fineteness is not "tensedness" but the presence of a subject agreement marker on the verb.

In this sense, as we can see in the following sentence pairs, raising structures in English differ from those in Turkish:

(38) a. John wants [to go] (Subject Control)

b. Kaya [git-mek] ist-iyor

Kaya-Nom go-Inf want-Prog- 3S

"Kaya wants to go"

(39) a. You seem to me [to be angry] (Subject-to-subject raising)

b. Sen [ban-a üzülmüş-(sün) gibi] geliyor.

You-Nom I-dat sad-2S like seem-Prog-3S

"You seem to be angry"

As we can see in (38b) Turkish control structure takes an infinitival complement in parallel to its English counterpart in (38a). However, raising structures differ from English raising structures in that in (39a) the English raising predicates takes a non-finite complement whereas the Turkish raising predicate in (39b) has a finite complement since it is marked with an agreement marker.

However, classical tests to distinguish raising and control structures are applicable to Turkish. For instance, in Chapter 2, we noted that in raising predicates idiomatic expressions can retain their meaning while control structures cannot. The typical example showing this distinction is repeated below:

(40) a. The cat seemed to be out of the bag.

b. ? The cat tried to be out of the bag

(Davies&Dubinsky, 2004:8)

As we can see, with the raising structure in (40a), the idiom can retain its meaning but this is not possible in the control construction in (40b). Similar examples can also be found in Turkish:

(41) a. At-ı al-an Üsküdar-ı geç-ti gibi görün-üyor

Horse-Acc take-Rel Üsküdar-Acc cross-Pst-3S like seem-Prog-3S

"The one who took the horse seems to cross Üsküdar" - intended meaning:

"You seem to have lost your chance."

b. * At-ı al-an Üsküdar-ı geç-meğ-i dene-di

Horse-Acc take-Rel Üsküdar-Acc cross-Inf-Acc try-Pst-3S

"The one who took the horse tried to cross Üsküdar" - intended meaning:

"S/he tried to use the opportunity"

As we can see in (41), in parallel to the English example in (40), in Turkish the idiom "Atı alan Üsküdar'ı geçti" which roughly means "S/he used the opportunity and you lost your chance," can retain its meaning with the raising structure in (41a), but not with the control structure in (41b).

Another test that can be applied to Turkish is the interaction of raising verbs with embedded passives. In Chapter 2, we noted that with raising verbs such as "seem," a

sentence with an embedded passive complement is synonymous with the same sentence with an active complement. This is not possible in the case of the control verbs like "try," as can be seen in the following sentences:

(42) a. Barnett seemed to have read the book.

b. The book seemed to have been read by Barnett

(43) a. The doctor tried to examine Tilman.

b. Tilman tried to be examined by the doctor.

(Davies & Dubinsky, 2004:5)

(42a) and (42b) both have the raising predicate "seem." In (42a), "seem" has an active complement and in (42b) it has a passive complement. What is crucial here is that (42a) can be paraphrased as (42b). However, in (43a), it is the doctor who attempts the examination while in (43b), being the agent of "try," it is Tilman, who attempts the examination, indicating that with control verbs such as "try" the active and passive counterparts are not synonymous. The same asymmetry can also be seen in Turkish. Consider the following sentences:

(44) a. Ahmet oda'yı boya-mış gibi görün-üyor

Ahmet room-Acc paint-Pst-3S like seem-Prog-3S

"Ahmet seems to have painted the room"

b. Oda boya-n-mış gibi görün-üyor.

Room-Nom paint-Pass-Pst-3S like seem-Prog-3S

"The room seems to have been painted"

(45) a. Doktor Ahmet'i muayane et-me-yi dene-di

Doctor-Nom Ahmet-Acc examine-Inf-Acc try-Pst-3S

"The doctor tried to examine Ahmet."

b. Ahmet doktor tarafından muayane ed-ilme-yi dene-di

Ahmet-Nom doctor by examine-Pass-Acc try-Pst-3S

"Ahmet tried to be examined by the doctor."

As we can see in the examples above, in (44) with the raising verb "görün-" (seem), both active and passive embedded clauses are synonymous. On the other hand, in (45), which is formed with the control verb *dene-* (try), there is a meaning change in the sense that in (45a), the agent is *doctor* (doctor) while in (45b), the agent is "Ahmet."

Keeping these differences between Turkish control and raising structures in mind, let us continue with the two main approaches for the Turkish raising structures, which investigate whether NP movement is obligatory or not in Turkish.

3.4.7.1. NP Movement Analysis of Turkish Raising Structures

Moore (1998) argues that Turkish raising structures should be analyzed as instances of copy raising, which is an account argued for Greek raising constructions. In his paper,

Moore proposes that Turkish raising structures involve an A-chain, the tails of which is a silent pronominal as shown in (46):

(46) Biz_i san-a $[_{CP}\ pro_i$ süt iç-ti-k] gibi görün-dü-k.

we-Nom you-Dat milk drink-Pst-1P like appear-Pst-1P

"We appeared to you to have drunk milk"

(Moore, 1998:150)

Under this analysis, raising constructions involve a raised nominal, which is associated with a silent pronominal copy in the embedded subject position. In addition to this, following George and Kornfilt (1981), who take agreement morphology as the defining criteria for finiteness, Moore suggests that there are two dialects of Turkish. In one dialect (Dialect A), raising is possible only out of non-agreeing direct complements, whereas in the second dialect (Dialect B), raising is possible out of both non-agreeing and agreeing direct complements. Moore contends that Turkish exhibits raising both out of non-agreeing and agreeing direct complements:

(47) a. Biz san-a $[pro_i$ viski-yi iç-ti] gibi görün-dü-k

we-Nom you-Dat whiskey-Acc drink-Pst like appear-Pst-1P

raising out of non-agreeing direct complement ⇒OK both in dialect A and B

b. Biz san-a [pro_i viski-yi iç-ti-k] gibi görün-dü-k

we-Nom you-Dat whiskey-Acc drink-Pst-1P like appear-Pst-1P

"We appeared to you to have drunk the whiskey"

raising out of agreeing direct complement ⇒ OK in dialect B, not OK in dialect A

According to Moore, Dialect B, the dialect that accepts both sentences (44a) and (44b) as grammatical, allows movement chains ending in an NP trace and copy-chains ending in a silent pronominal. Therefore, Moore suggests that Dialect A allows NP-movement but not copy chains while Dialect B allows both movement (NP_i , e_i) and copy chains (NP_i, pro_i).

Moore extends his copy raising analysis to Subject to Object raising/ECM constructions as well and argues for an NP movement analysis instead of Exceptional Case Marking as shown in (48):

(48) *pro* sen-i_i [$_{IP}$ e_i viski iç-ti] bil-iyor-du-m.

Pro you-Acc whiskey drink-Pst know-Prog-Pst-1S

"I knew you to have drunk the whiskey."

In this analysis, Moore argues that the sentence above should be analyzed as a case of Subject-to-object raising, which involves the movement of the embedded subject to the object position in the matrix clause. Thus, Moore claims that Turkish supports a Subject-to-Object Raising (SOR) analysis instead of ECM analysis *á la* Chomsky (1981),

which argues that the accusative marked subject of the embedded clause checks case in situ and does not raise to the matrix clause.

In this sense, Moore's copy-raising analysis converges with Zidani-Eroğlu (1997), who also argues for NP movement in Turkish raising constructions by positing a number of arguments based on adverbials and negative polarity items. Zidani-Eroğlu notes that in ECM constructions, the embedded thematic subject surfaces with accusative case as shown in (49a) and (49b):

(49) a. (Siz) ben-i Ali'yi gör-dü san-ıyor-sunuz.
You-Nom I-Acc Ali-Acc see-Pst believe-Prog-2P
"You believe me to have seen Ali"

b. (Siz) ben-i Ali'yi gör-ecek san-ıyor-sunuz.
You-Nom I-Acc Ali-Acc see-Fut believe-Prog-2P
"You believe me to be going to see Ali"

In order to show evidence in favor of NP movement in Turkish raising structures, Zidani-Eroğlu presents arguments parallel to Postal (1974) and Lasnik and Saito (1991), whose distinction of ECM constructions in English was discussed in Chapter 2.

One of the arguments Zidani-Eroğlu uses is related to the interaction of adverbials with ECM constructions. Let us consider the following sentences:

(50) (Siz) sabahtan beri [Ali öpül-dü] san-ıyor-sunuz.

You-Nom morning-Abl since Ali-Nom kiss-Pass-Pst-3S believe-Prog-2P

"You have been thinking since this morning that Ali was kissed."

(51) * (Siz) [Ali sabahtan beri öpül-dü] san-ıyor-sunuz.

You-Nom Ali-Nom morning-Abl since kiss-Pass-Pst-3S believe-Prog-2P

(52) (Siz) Ali'yi sabahtan beri öpül-dü san-ıyor-sunuz.

You-Nom Ali-Acc morning-Abl since kiss-Pass-Pst-3S believe-Prog-2P

"You believe Ali to have been kissed since this morning."

(the belief has been going on since this morning)

(53) a. Ali sık sık Can-ı döv-ül-dü san-ır.

Ali-Nom often Can-Acc beat-Pass-Pst-3S believe-Aor-3S

"Ali often told Banu that Can was beaten"

b. Ali Can-ı sık sık döv-ül-dü san-ır.

Ali-Nom Can-Acc often beat-Pass-Pst-3S believe-Aor-3S

"Ali often believes Can to have been beaten"

Zidani-Eroğlu claims that in sentence (50), which has a finite clause, the adverb can modify the matrix predicate when it precedes the embedded subject but in (51) it fails to modify the matrix predicate when it follows the embedded subject. Zidani-Eroğlu argues that unlike (51), the adverb *sık sık* (often) in (53) can modify the matrix predicate

in an ECM construction. According to Zidani-Eroğlu, the possibility of such modification indicates that the adverb is in the matrix clause, therefore, the ECM NP must occupy a position in that clause as well. As for (53), Zidani-Eroğlu claims that in sentence (53a) the frequency of believing is conveyed whereas in (53b), there is an ambiguity and the sentence can convey either the frequency of beating or the frequency of believing providing evidence for SOR raising.

Another test used by Zidani-Eroğlu is related to negative polarity items. A negative polarity item (NPI) is grammatical only in presence of a licenser, which must have scope over the NPI in the sentence (Klima 1964 among others) and Turkish is not an exception to this generalization as we can see in (54):

(54) a. Zeynep *kimse*-yi gör-me-di
Zeynep-Nom anybody-Acc see-Neg-Pst-3S
"Zeynep did not see anybody."

b. Partiye *kimse* gel-me-di
To the party nobody-Nom come-Neg-PST-3S
"Nobody came to the party"

As noted by Zidani-Eroğlu, the negation morpheme *–mA* licenses the NPI *kimse* in both object and subject position in sentences (54a) and (54b). Without the licenser *–mA* the sentences are ungrammatical as we can see in (55a) and (55b):

(55) a. *Zeynep kimse-yi gör-dü

Zeynep-Nom nobody-Acc see-Pst3sg

'Zeynep saw anybody'

b. *Parti-ye kimse gel-di.

Party-Abl nobody come-Pst3sg

'Anybody came to the party'

Zidani-Eroğlu extends the NPI examples to ECM cases and argues that the interaction of NPI with ECM constructions supports an NP movement analysis as illustrated in the following sentences:

(56) a. (Siz) [kimse bu kitab-ı oku-ma-dı] san-ıyor-sunuz.

You-Nom anybody-Nom this book-Acc read-Neg-Pst-3S think-Prog-2P

'You think that nobody read this book'

b. (Siz) [kimse bu kitab-ı oku-du] san-m-ıyor-sunuz

You-Nom anybody-Nom this book-Acc read-Pst-3S think-Neg-Prog-2P

"You do not think that anybody read this book"

(57) a. *(Siz) [kimse-yi bu kitabı oku-ma-dı] san-ıyor-sunuz.

You-Nom anybody-Acc this book-Acc read-Neg-Pst-3S believe-Prog-2P

"You believe nobody to have read this book."

b. *(Siz) [kimse-yi bu kitab-ı oku-ma-yacak] san-ıyor-sunuz.

you-Nom anybody-Acc this book-Acc read-Neg-Fut believe-Prog-2P

" You believe nobody to not be going to read this book."

According to Zidani-Eroğlu, the negation in the embedded clause in (56a) and the one in the matrix clause in (56b) license the embedded NPI but the examples (57a) and (57b) are "ungrammatical" because NPI is in the matrix clause, thus, outside the scope of negation. She argues that in (57a) and (57b) NP "kimseyi" moves out of embedded clause and is not c-commanded by the negation and for this reason, Zidani-Eroğlu claims that the ungrammaticality of (57a) and (57b) shows that there is NP raising to the matrix clause.

Thus on the basis of these tests, Zidani-Eroğlu claims that accusative marked NPs in Turkish ECM structures occupy a position in the matrix clause and for this reason, Turkish raising structures should be analyzed as instances of SOR as in (58a) instead of ECM as in (58b):

(58) a. $[S_1 ....NP\text{-}ACC_1 ....[S_2\ t_i ....]...]$

b. $[S_1 ....[S_2 .... NP\text{-}ACC...]...]$

So far, we have introduced arguments in favor of NP movement in Turkish raising constructions. In the following section, we will look at a different approach, which argues against raising in Turkish by using the same tests presented by Zidani-Eroğlu.

3.4.7.2. NP- Movement Free Analysis of Turkish Raising Structures

Unlike Zidani-Eroğlu (1997), Aygen (2002a) argues that ECM subjects are raised to the higher clause by neither overt nor covert phrasal movement. Aygen argues that if the observation that in (56) NPI "kimse" is licensed in the higher clause is correct, we would expect adverbs of the ECM to be interpreted within the higher clause when the ECM subject is raised to the matrix clause. However, as can be seen in (59), this is not the case:

(59) Ben Kürşat-ı [*her zaman* geç kal-ıyor] san-ıyor-du-m.

I Kürşat-Acc always be late-Prog think-Prog-Past-1S

"I thought that Kürşat was *always* being late" (Aygen, 2002a:2)

In (59), the adverbial *her zaman* "always" is interpreted within the embedded clause and not as part of the higher clause showing that there is no NP movement to the matrix clause. In addition to this, Aygen discusses the example given in Zidani-Eroğlu's analysis in (53). She rightfully points out that (53b) is not ambiguous between a matrix scope of the adverb and the embedded scope of the adverb as Zidani-Eroğlu claims. The only available reading in (53b) is the one where the adverb has the embedded scope and can only convey the frequency of beating. (53b) is repeated below for convenience:

(53) b. [S_1 Ali [S_2 Can-ı sık sık dövül-dü] san-ır].

Ali-Nom Can-Acc often beat-Pass-Past believe- Aor-3S

"Ali believes Can to have been beaten frequently"

As Aygen points out, sentence (53b) cannot be ambiguous because of two properties of Turkish:

- Adverbs take surface scope unless there is another scopal element that they have to scope over for interpretational purposes (Fox, 2000).
- The preverbal position is the default focus position and the constituent always bears the focus and is interpreted there.

Aygen also presents additional argument from binding facts in Turkish raising structures as observed by Özsoy (2002):

(60) (Biz) [siz-i biz-den/*kendi-miz-den bahsed-iyor] san-ıyor-duk]
we you-pl-Acc we-Abl Self-Poss1P-Abl talk about-Prog consider-Prog-Pst-1P
'We considered you to be talking about us/*ourselves'

In the sentence above, as Özsoy (2002) indicates ECM constructions with verbal predicates form a domain with respect to the binding of anaphors. The ungrammaticality of (60) with *kendimiz* (ourselves) follows from the fact that the antecedent of the anaphor *kendimizden* (ourselves) is not contained within that domain. Thus, according to Aygen (2002a), example (60) provides us with further evidence showing that accusative case on NPs in raising/ECM structures is licensed within the lower clause.

On the basis of these arguments, Aygen claims that Turkish is not like English in terms of ECM subject's raising to the higher clause and that ECM is parameterized across languages. Instead of NP-movement analysis, Aygen (2002a) proposes that there is an Agree relation established between the higher verb and the ECM subject, which occupies

a position at the clause edge. With this Agree relation, the higher verb can assign accusative case to the ECM subject.

Öztürk (2005b) also argues against raising in Turkish ECM clauses. Along the lines of Aygen (2002a), Öztürk presents evidence from adverb scope facts showing that the embedded subject in ECM clauses never leaves its own clause.

For the position of ECM subjects, presenting evidence from topic marker *ise* (as for) in Turkish, Öztürk shows that ECM subjects are not as high as matrix object position but they occupy a topic position within the embedded CP:

(61) a. Ali [ben-i ise git-ti] san-dı.

Ali [I-Acc ise go-Pst] think-Pst-3S

'As for me, Ali thought that I have left'

b. *Ali [Ahmet$_i$-i ise o$_i$ git-ti] san-dı

Ali-Nom Ahmet-Acc ise he go-Pst-3S think-Pst-3S

'As for Ahmet, Ali thought that he has left'

According to Öztürk (2005b), (61a) shows that the topic marker *ise* (as for) which marks the element occupying the left periphery of the embedded clause, is compatible with ECM subjects. The ungrammaticality of (61b) follows from the fact that although ECM subjects get topicalized in the left periphery, they never leave their own clause and raise as high as matrix clause.

After determining the position of ECM subjects, Öztürk explains the source of the syntactic accusative case on the ECM subject based on the distinction between the

properties of syntactic case checking and morphological case realization along the lines of Kuroda (1988), Miyagawa (1991), Marantz (1991) and Harley (1995) (cited in Öztürk, 2005b). Öztürk argues that the embedded subject of ECM clauses checks syntactic case in situ in its own clause. However, it escapes the scope of the embedded T for morphological case realization because it has raised into the embedded [Spec, CP]. Since both the Spec and the Head are in the phase edge, the subject occupying the Spec, in this case the ECM subject, gets accusative morphology as it is the only available nominal element in Turkish in the absence of a nominalized element.

2.4.7.3. NP Movement or NP-Movement Free Account?

In this thesis, we will favor an NP-Movement Free Account of Turkish raising structures because in addition to the evidence presented by Aygen (2002a) and Öztürk (2005b), we believe that there is further evidence supporting an NP-Movement Free Account of the data. One of these arguments comes from the licensing of NPI's in Turkish. Let us consider the ECM construction with NPI "kimse" given in (57), the "ungrammaticality" of which is argued to provide evidence for an SOR analysis. For convenience, we will repeat (57) here:

(57) a. *(Siz) [kimse-yi bu kitabı oku-ma-dı] san-ıyor-sunuz.
you-Nom anybody-Acc this book-Acc read-Neg-Pst-3S believe-Prog-2P
"You believe nobody to have read this book"

b. *(Siz) [kimse-yi bu kitab-ı oku-ma-yacak] san-ıyor-sunuz.
you-Nom anybody-Acc this book-Acc read-Neg-Fut-3S believe-Prog-2P
"You believe nobody to not be going to read this book"

As we discussed earlier, Zidani-Eroğlu argues that in (57a) and (57b), ECM NP *kimseyi* moves out of embedded clause and is not c-commanded by the negation. On the basis of this argument, Zidani-Eroğlu claims that the ungrammaticality of these sentences shows that there is ECM NP raising to the matrix clause. First, neither my informants nor do I agree that the sentences in (57) are ungrammatical.[10] Apart from our intuitions about the ungrammaticality of these sentences, we can also offer an explanation along the lines of Kelepir (2001). We can argue that in the sentences in (57), the NPI *kimseyi* is c-commanded by negation and for this reason, it should be grammatical indicating that the accusative marked subject *kimseyi* does not leave the embedded clause. Thus, assuming that NPIs in Turkish are licensed by a c-commanding negation along the lines of Kelepir (2001), the sentence given in (57) to support SOR analysis actually provides us with evidence arguing for a NP-movement free account of these structures.

In addition to the evidence from NPI's, another piece of evidence showing that there is no NP movement in raising structures comes from topic phrases, which Bruening uses to show that ECM NP does not raise to a higher clause in Japanese (Bruening, 2001). Consider the following sentences:

(62) a. Yamada-ga KONO KURASU-DE-WA *zenin-o* baka-zya-nai-to omotta

Y-Nom this class-in-Top all-Acc fool-be-Neg-Com thought

'Yamada thought that in the class all were not fools."

[10] Please note that Öztürk (2005b) accepts Eroğlu's ungrammaticality judgments regarding sentences in (57). However, in order to explain the ungrammaticality of (57) Öztürk argues that NPI subject "kimseyi" is in a higher

b.* Yamada-ga *zenin-o* KONO KURASU-DE-WA baka-zya-nai-to omotta

Y-Nom all-Acc this class-in-Top fool-be-Neg-Com thought

'Yamada thought that in the class all were not fools."

(Bruening, 2001:25)

Bruening argues that in (62a) the topic phrase KONO KURASU-DE-WA must be clause initial. He points out that when the topic phrase is clause initial as in (62a), the accusative case marked NP can follow it. However, (62b) is ungrammatical because in this sentence, the accusative case marked NP precedes the topic phrase marker indicating that there is no NP-movement to the matrix clause. This is due to the fact that if the accusative case marked NP raised to a position within the higher clause, it would be able to appear before the topic phrase marker, which marks the left edge of the lower clause.

Let us consider an example where we have topic phrase *ise* (as for) in Turkish to see if Bruening's observation applies to Turkish:

(63) a. Cem [bu gece ISE *Ayşe-yi* gel-ecek] san-ıyor

Cem tonight as for Ayşe-Acc come-Fut-3S think-Prog-3S

Cem thinks that as for tonight Ayşe will come

b. *Cem *Ayşe'yi* [bu gece ISE gel-ecek] san-ıyor

Cem Ayşe-Acc tonight as for come-Fut-3S think-Prog-3S

position escaping the c-command domain of negation and thus she presents an alternative account without recourse to raising into matrix clause.

Sentence (63a) "Cem bu gece ise Ayşe'yi gelecek sanıyor" means that every night someone else is coming and Cem thinks that as for tonight Ayşe will come. The adverb *bu gece* (tonight) is interpreted in the lower VP having scope over the embedded verb, which indicates that the accusative case marked NP "Ayşe'yi" is also in the embedded clause. The accusative case marked NP "Ayşe'yi" cannot precede the topic phrase marked with *ise* (as for) as seen in (63b). Along the lines of Bruening (2001), assuming that topic phrases are required to be at the left edge of a clause, the ungrammaticality of (63b) shows that the accusative case marked NP, *Ayşe'yi,* must be within the lower clause. Because if *Ayşe'yi* raised to a position within the higher clause, it would be able to appear before the topic phrase, and (63b) would be grammatical. Since this is not the case, we can argue that the accusative case marked NP's do not raise to the matrix clause in Turkish and that there is no NP movement in Subject-to-object raising/ECM structures in Turkish.

So far we have presented evidence showing that there is no NP-movement in Turkish Subject-to-object raising/ECM structures. In fact, we also have evidence supporting the fact there is not an obligatory NP-movement to the matrix clause in Subject-to-subject raising constructions. Let us take a look at the following sentences to illustrate this point:

(64) a. [Sen$_i$ bana [t_i üz-ül-müş-sün] gibi görün-üyor-sun]

you-Nom ben.Dat sad-Past-Hearsay-2S like seem-Prog-2S

'It seems to me that you are sad'

b. [_____bana [sen üz-ül-müş-sün] gibi görün-üyor]

ben-Dat you-Nom sad-Pst- Hearsay -2S like seem-Prog-3S

'It seems to me that you are sad'

In (64a), as we can see, the matrix verb *görün-* (seem) bears agreement. On the other hand, in sentence (64b) above, there is agreement only in embedded CP meaning that *sen* (you) does not move to [Spec, TP]. Assuming that [Spec, TP] can be left empty in Turkish along the lines of Özturk (2005a)[11], (64b) shows that there is not an obligatory NP-movement in Subject-to-subject raising structures in Turkish.

3.4.7.4. Summary

In this section, we outlined two basic approaches to Turkish raising structures. First, we have presented the stand taken by Moore (1998) and Zidani-Eroğlu (1997), who argue for NP-movement in ECM/SOR structures in Turkish. We focused on arguments presented in Zidani-Eroğlu (1997), which were namely the interaction of raising constructions with adverbials and NPI's. Then, we also presented a more recent approach advocated by Aygen (2002a) and Öztürk (2005b) who argue against arguments presented in Zidani-Eroğlu (1997) and claim that there is no NP movement to the matrix clause in Turkish raising constructions.

After introducing these two approaches on Turkish raising structures, we have also presented further evidence from Turkish NPI's, topic phrase markers and raising

[11] Please note that in this study we are not assuming the phrase structure model that Özturk (2005a) assumes where NP movement to [Spec, TP] is not due to the EPP or case. In this thesis, we assume the canonical phrase structure for Turkish where subjects move overtly to [Spec, TP] for case or EPP reasons. In this respect, example (64b) is only given to show that obligatory NP movement in Turkish is dubious and for this reason we will not go into the details of Ozturk's account for sentences like (64b), where [Spec, TP] is empty.

constructions with empty [Spec, TP]'s, all of which show that there is no obligatory NP movement in Subject-to-object-raising or Subject-to-subject raising constructions in Turkish. This indicates that Hornstein's MTC, which takes control as instance of raising, cannot be applied to Turkish since Turkish does not show obligatory NP movement, hence raising.

3.5. Conclusion

This chapter focused on the applicability of Hornstein's MTC to Turkish. In order to investigate whether MTC can be applied to Turkish, we introduced data from Turkish control structures. We saw that typically Turkish control structures appear in structures formed with the infinitival –mAK, which does not bear agreement marker. The data from split antecedents in Turkish control structures formed with –mAK, co-indexation possibilities in adjunct control cases, the availability of partial and implicit control, and OC under non c-command provided us with evidence suggesting that the application of MTC to Turkish is not feasible.

Apart from evidence from control structures, we also looked at Turkish raising structures because Hornstein's MTC rests on the idea that control can be analyzed akin to raising structures. However, the data that we presented with regard to Turkish raising structures showed that there is no obligatory NP-movement in Turkish. The absence of obligatory NP-movement in Turkish raising structures implies that it is not possible to claim that Turkish control structures can be analyzed as an instance of movement akin to raising structures.

Thus, evidence both from control structures and from the unavailability of NP movement in raising structures strongly suggests that we need to posit PRO in Turkish control structures. In the next chapter, we will first present Landau's typology of control, which recognizes the existence of PRO and the distinction between raising and control structures in terms of NP movement. Then, we will continue with the analysis of Turkish OC structures.

CHAPTER 4

OC IN TURKISH

4.1. Introduction

In the previous chapter, we concluded that Hornstein's MTC cannot be applied to Turkish by presenting evidence from Turkish control structures as well as the unavailability of NP movement in Turkish raising structures. After establishing that control in Turkish cannot be analyzed as an instance of NP-movement, in this chapter, we will present a typology of Obligatory Control (OC) structures in Turkish by taking the typology proposed by Landau (1999) as a starting point. To this end, in the following section we will first present Landau's proposal and then discuss the properties of OC in Turkish.

4.2. Landau's Typology of Control

Apart from the two main categories of control, namely Obligatory Control and Non-obligatory Control (NOC), the properties of which have been outlined before, Landau (1999) presents a different typology of control in which Obligatory Control and Non-Obligatory Control consist of sub-categories.

According to Landau (1999), the category of Obligatory Control is not homogenous in the sense that it consists of two subtypes: Exhaustive Control (EC) and Partial Control (PC). The first one, EC Control, refers to constructions where PRO must be identical to the controller and must be exhausted by the reference of the controller. In PC Control, on the other hand, PRO must include the controller. However, it is not identical to the controller and denotes a larger set of individuals. That is why Landau

uses the notation PRO_{1+} to represent the empty category in PC constructions. The following examples illustrate EC and PC respectively:

(1) $John_1$ began [PRO_1 to work on the project] (EC)

(2) The $chair_1$ preferred [PRO_{1+} to gather at 6] (PC)

(Landau, 1999:14)

In the above examples, in (1) PRO is identical to the controller, which is "John" in this case. In (2) on the other hand, PRO includes the controller "the chair" but it is not identical to the controller since the collective predicate "gather" requires more than one person as antecedent.

In the typology that Landau presents, similar to OC, which has the sub-types EC and PC, NOC also consists of two subtypes, which are Long Distance (LD) Control and Arbitrary Control. In LD Control, the controller and the infinitival complement are not clause mates while in Arbitrary Control, PRO has no argumental controller. The following sentences exemplify LD and Arbitrary Control respectively.

(3) [PRO_1 storming out of the room that way after losing the game] convinced everyone that $John_1$ is very immature. (Long-Distance Control)

(Landau, 1999: 47)

(4) It is dangerous for babies [PRO_{arb} to smoke around them] (Arbitrary Control)

(Landau, 1999: 46)

Thus, the typology of control that Landau (1999) presents can be summarized in the following table:

Table 1: Landau's Typology of Control

Control			
Obligatory Control (OC)		Non-Obligatory Control (NOC)	
Exhaustive Control (EC)	Partial Control (PC)	Long-distance (LD) Control	Arbitrary Control

We should note that in this chapter, after outlining Landau's typology of control, we will specifically focus on the subcategories of OC, i.e., EC and PC categories in Turkish. The discussion of NOC in Turkish will be the topic of Chapter 5.

4.2.1 Properties of OC

Landau describes OC as the type of control, in which the controller and the infinitive are clause mates. OC contrasts with NOC in that in NOC, the infinitive does not need to have a clause mate controller. Landau argues that typically OC constructions are found in complement positions. He proposes the following list to describe the properties of OC (Landau, 1999:43):

a. Arbitrary Control, in which PRO has no argumental controller, is not possible with OC,

b. Long-Distance Control, in which the controller and infinitive are not clausemates, is not possible with OC,

c. Sloppy reading is possible with OC,

d. *De se* reading, which refers to a belief about oneself, is possible with OC.

Landau gives some examples to illustrate these properties:

(5) a. *John tried [PRO_{arb} to be quite]

b. [PRO_{arb} to eat red meat] is not healthy

(Adapted from Landau, 1999)

In the above examples, the ungrammaticality of (5a) follows from the fact that arbitrary control reading of PRO is not possible in OC structures. OC contrasts in this sense with NOC because as we can see in (5b), which is an NOC structure, the sentence allows arbitrary interpretation of PRO.

(6) a.*$Mary_1$ knew that it disturbed John [PRO_1 to perjure herself]

b. [PRO_1 storming out of the room that way after losing the game] convinced everyone that $John_1$ is very immature.

(Landau, 1999:47)

The ungrammaticality of (6a) shows that L(ong) D(istance) control is not possible in OC constructions since the controller of PRO cannot be interpreted as "Mary." On the other hand, LD is possible with the NOC structure in (6b), in which LD controller "John" is further away in the structure than PRO.

(7) a. John tried [PRO to leave early,] and Bill did, too.

b. John thinks that [PRO feeding himself] will be difficult, and Bill does, too.

(Landau, 1999:47)

As pointed out by Landau (1999), OC structure in (7a) allows sloppy reading under ellipsis because (7a) means "John tried to leave early and Bill tried to leave early too." This is due to the fact that in (7a) the reconstructed VP of the second clause can be controlled by "Bill." In (7b), on the other hand, which is an NOC structure, PRO behaves like a pronominal, thus, we have a strict reading of PRO. Therefore, (7b) means "Bill thought that John's feeding himself will be difficult."

(8) a. The unfortunate expects [PRO to get a medal].

b. The unfortunate believes that [PRO getting a medal would be boring].

(Landau 1999, 47)

In (8a), we have an OC structure, which is only possible with *de se* reading, i.e., a belief about oneself. Thus, (8a) means "the unfortunate expects himself to get a medal." The NOC structure in (8b) allows *de re* reading, in which the unfortunate refers to e.g. "a war hero", who suffers from amnesia, and this "unfortunate" person believes that for an individual it would be boring to get a medal but this is not a belief about the "self."

It is worth pointing out that in the list above Landau leaves out some properties that are commonly associated with OC. For instance, Williams 1980, Bouchard 1984, Koster 1984 and Hornstein 1999 (cited in Landau 1999) claim that the controller in OC must c-command PRO and that PRO cannot have split antecedents. Landau argues against these properties by giving the examples below:

(9) a. Yesterday, it spoiled Mary's$_i$ mood [PRO$_{i/*arb}$ to listen to the news].

b. [PRO$_i$/*Bill's/his$_{i/*j}$ making that comment] was very rude of John$_i$.

(10) a. John$_i$ promised his son$_j$ [PRO$_{i+j}$ to go to the movies together].

b. John$_i$ persuaded Mary$_i$ [PRO$_{i+j}$ to kiss in the library].

(Landau, 1999: 43)

In the above examples, in (9a) the controller "Mary" is embedded inside the matrix object and fails to c-command PRO but still the sentence is an example of OC PRO. Also, in (9b) the object of the matrix predicate obligatorily controls PRO although it does not c-command it.

As for sentences in (10), they are formed with the verbs "promise" and "persuade," which are taken to be classical examples of OC verbs. As we can see both in (a) and (b) sentences, these OC verbs allow split control although they are instantiations of OC.

After outlining the basic properties of OC, let us compare the two sub-categories under the rubric OC, namely EC and PC.

4.2.2 E(xhaustive) C(ontrol) vs. P(artial) C(ontrol)

Landau (1999) dedicates a substantial part of his study to EC and PC categories of control since these categories, especially PC, have not received sufficient attention in the literature. As said above, in EC constructions, PRO is identical to the controller and must be "exhausted" by the controller. In PC constructions, on the other hand, PRO includes the controller plus some other individuals.

According to Landau, most control verbs are PC verbs and only a small minority of verbs can be classified as EC verbs. The PC class of verbs is comprised of desideratives, interrogatives, factives and propositional verbs while the EC class is comprised of implicative verbs and a few modal and aspectual verbs. Landau gives the following examples to illustrate each verb class (1999:49):

(11) EC class of verbs

a) Implicative: John managed to solve the problem

b) Aspectual: John began to solve the problem.

c) Modal: John had to solve the problem.

(12) PC class of verbs

a) Factive: John hated to solve the problem.

b) Propositional: John claimed to have solved the problem.

c) Desiderative: John hoped to solve the problem.

d) Interrogative: John wondered how to solve the problem.

Landau explains that implicative verbs assert or deny the truth of their complements. For example, (11a) entails that "John had solved the problem," and its negation entails that he did not. Factive verbs, on the other hand, presuppose the truth or the falsity of their complements. For instance, both (12a) and its negation entails that "John solved the problem" (Landau, 1999:50).

Propositional verbs as in (12b) are epistemic or declarative in the sense that they are diagnosed by the possibility of predicating truth/falsity of their complements. For

instance, the sentence "John claimed to have solved the problem," might be either true or false.

Desiderative complements express desires, intentions and commands, all of which are non-objective descriptions of reality. Both desiderative control verbs as in (12c) and interrogative as in (12d) complements are intentional.

Landau also gives a representative list of control predicates in English as in (13) (Landau, 1999:50):

(13)

EC class of verbs

a. Implicatives: dare, manage, make sure, bother, remember, get, condescend, avoid, forget, fail, refrain, decline, neglect, force, compel.

b. Aspectual: begin, start, continue, finish, stop, resume

c. Modal: have, need, may, should, to be able, must

(14)

PC class of verbs

d. Factives: glad, say, regret, like, dislike, hate, loath, surprised, shocked, sorry.

e. Propositional: believe, think, suppose, imagine, say, claim, assert, affirm, declare, deny

f. Desideratives: want, prefer, arrange, hope, afraid, refuse, agree, plan, aspire, decide, mean, intend, resolve, strive, demand, promise, choose, offer, eager, ready.

g. Interrogatives: wonder, ask, find out, interrogate, inquire, contemplate, deliberate, guess, grasp, understand, know, unclear.

Landau asserts that an important difference between EC and PC is related to the syntactic and semantic plurality of PRO. He argues that PRO enters the derivation with phi-features but lacks semantic number, which can only be assigned via the syntactic mechanism Agree or by semantic/pragmatic contexts. He further argues that syntactic phi-features (number, person and gender) on PRO in PC complements are "inherited" from the controller but semantic number is not, which forces a partial control reading (Landau, 1999:70). Thus, he claims that the syntactic plurality versus semantic plurality establishes a clear contrast between EC and PC verbs as the following examples illustrate:

(15)

a. *The chair$_1$ managed PRO$_1$ to meet/gather at 6

b. The chair preferred PRO$_{1+}$ to meet/gather at 6.

In (15a), "manage" is an implicative verb meaning it is an EC verb while "prefer" is a desiderative verb, in other words, a PC verb. "Meet" and "gather" are collective predicates that require semantically plural subjects to be well formed. As (15b) illustrates, since the semantic number on PRO in PC complements is not inherited from the controller, the PC verb "prefer" licenses a reading in which the controller is part of a larger group denoted by PRO whereas in EC PRO in (15a) this reading is not possible. This distinction between EC PRO and OC PRO can be seen in the following examples as well:

(16)

a. * The chair *dared* to convene during the strike. (*dare*: implicative- EC)

b. The chair *decided* to convene during the strike. (*decide*: desiderative - PC)

c. The chair has *wondered* whether to convene during the strike. (*wonder* : interrogative- PC)

(17)

a.* John told Mary that he *had to* separate before it's too late. EC have to. (*have to*: implicative- EC)

b. John told Mary that he *intended* to separate before it's too late. (*intend*: desiderative- PC)

c. John told Mary that he *wonders* how to separate before it's too late. (*wonder*: Interrogative-PC)

(18)

a. * Mary said that John *began* to debate this question quite recently. (*begin*: aspectual -EC)

b. Mary said that John *wanted* to debate this question very soon.(*want*: desiderative -PC)

c. Mary said that John finally *understood* when to debate this question. (*understand* – interrogative – PC)

(19)

a. * Mary asked John if he *dared* to dance together at the party.(*dare:* implicative-EC)

b. Mary asked John if he *planned* to dance together at the party.(*plan*: desiderative-PC)

c. John said that Mary *wondered* whether to dance together at the party.(*wonder*- Interrogative-PC)

(Landau, 1999: 57-59)

As can be seen in the above sentences, EC verbs such as "convene," "begin," "have to" and "dare" do not permit a collective predicate to occur with a controller in the singular form. On the other hand, PC verbs permit collective predicates since syntactic phi-features (number, person and gender) on PRO in PC complements are inherited from the controller but the semantic number is not.

Landau argues that another factor distinguishing the EC and PC group of control predicates is Tense. According to Landau, PC complements are tensed while EC complements are untensed. In other words, PC complements are specified for their own tense whereas EC complements contain no independent tense and are interpreted as simultaneous with the matrix event. Therefore, Landau claims that only tensed infinitives manifest partial control. Following examples illustrate this point:

(20) a.* *Yesterday*, John managed to solve the problem *tomorrow*. (implicative)

b. **Yesterday*, John began to solve the problem *tomorrow*. (aspectual)

c. * *Yesterday*, John had to solve the problem *tomorrow*. (modal)

(21) a. *Today*, John regretted having kissed his aunt *last week*. (factive)

b. *Today*, John claimed to have lost his car keys *last week*. (propositional)

c. *Yesterday,* John hoped to solve the problem *tomorrow*. (desiderative)

d. *Yesterday*, John wondered how to solve the problem *tomorrow*. (interrogative)

(Landau, 1999:71-73)

The sentences in (20) and (21) contain conflicting temporal adverbs between the matrix clause and the infinitival clause, which Landau uses to indicate the presence of

two distinct tense operators. As we can see in the sentences in (20), which are all examples of EC control, the presence of conflicting temporal adverbs causes ungrammaticality since EC complements are tenseless and are supposed to be interpreted as simultaneous with the matrix event. In the sentences in (21), on the other hand, the presence of conflicting time adverbs does not cause ungrammaticality because PC complements are specified for their own tense and do not need to be interpreted as simultaneous with the matrix event.

After looking at the basic differences between EC and PC, let us look at the syntactic mechanism, which gives way to these differences. Landau argues that Agree is the underlying mechanism for OC, which operates differently in EC and PC. Before looking at how Agree operates differently in EC and PC, let us review some of the assumptions that underlie the Agree mechanism proposed by Landau (1999).

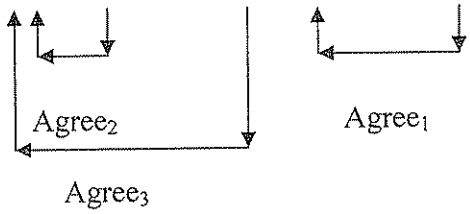
Following Pesetsky & Torrego (1999), Landau assumes that the C head contains some tense information, which has to be matched with the embedded T head and that this feature checking takes place with T-to-C movement. According to Landau, the head of a tensed CP bears an uninterpretable T-feature, which triggers T-to-C movement to check this feature whereas in untensed clauses T-to-C movement is unmotivated and thus blocked for economy considerations. The implication of this assumption is that T-to-C applies in PC complements, which is tensed, but not in EC complements since they are tenseless.

A further assumption that Landau makes is that PRO picks up phi-features when it enters the derivation but acquires semantic number by a syntactic operation like Agree or contextually because the semantic number is unspecified for PRO, unlike lexical nouns (for instance the word "committee"), which might be intrinsically plural.

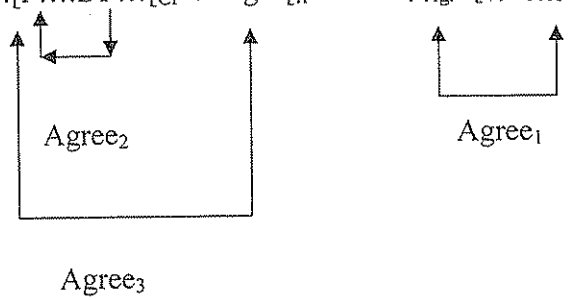
Landau also assumes that the phi-features of PRO are anaphoric like the phi-features of "himself" and these features require external identification or in other words, co-indexation. Following Borer (1989), Landau also argues that the infinitival Agr is anaphoric and that it needs to be identified. However, this identification is via Binding theory in Borer (1989) whereas in Landau (1999) the infinitival Agr is identified via Agree as formalized in Chomsky (1998).

Based on these assumptions, Landau takes OC to be an instance of Agree. Landau asserts that in this Agree relation, the probe is the matrix functional head (either T or v depending on subject or object control) that agrees with the controller while the goal is PRO or the infinitival Agr. The functional head, with which the controller agrees in return forms an Agree relation with PRO in the case of EC and with the infinitival Agr in the case of PC. The following schemas show the derivations for EC and PC respectively:

(22) a. .....[F....DP...[$_{CP}$ [$_{IP}$ PRO T-Agr [$_{VP}$ t_{PRO} ....]]]] Exhaustive Control (EC)



b. ....[F....DP...[$_{CP}$ T-Agr [$_{IP}$ PRO t $_{T\text{-}Agr}$ [$_{VP}$ t_{PRO} ....]]]] Partial Control (PC)



(Landau, 1999: 17)

In (22a), Agree operates on the features of F, DP and PRO. In this operation, first, $Agree_1$ matches the phi-features of T-Agr and PRO. As Landau notes, this operation does not apply to the semantic number because neither PRO nor Agr has this feature at this stage. After this feature checking T-Agr remains in situ because the EC complement is untensed and there is no motivation for T-to-C movement. Then, in $Agree_2$ the features of F and the controller DP are matched. At this stage, F inherits the semantic number of DP. Next, in $Agree_3$ the phi-features of F and PRO are matched and PRO inherits the semantic number too, thereby licensing the EC reading.

In (22b) on the other hand, Agree operates the features of F, DP and T-Agr. First, in $Agree_1$, the phi-features of Agr and PRO are matched. Then, since the infinitival complement is tensed, its forces T-Agr to move to C. Next, $Agree_2$ matches the features of the controller DP and F, which inherits the semantic number. Then, $Agree_3$ can target T-Agr at the phase edge as the goal matching the phi-features of F and T-Agr. It is important to note that at this stage, the matrix F cannot directly agree with the embedded PRO. This is due to the fact that T-Agr is at the head of CP phase and escapes the "Phase Impenetrability Condition," (Chomsky, 1998) which stipulates that elements below the head of a phase is invisible to operations from outside but only the Spec or the Head of the CP at the phase edge can establish an Agree relation with the functional category in the matrix clause. Thus, semantic number cannot be transmitted to PRO because PRO enters the derivation without a semantic number and the operation that established feature matching between T-Agr and PRO, that is to say, $Agree_1$, does not include a semantic number. Therefore, even if F transmits T-Agr the semantic number it inherited from the DP, T-Agr cannot pass on that feature to PRO. Thus, PRO inherits all phi-features from the controller but not semantic number and thus induces a PC reading.

What is important in (22b) is that the finite T moves to C and therefore induces a blocking effect on agreement, which licenses the PC reading.

4.3 Typology of Control in Turkish

In this section, we will start outlining a typology of control in Turkish on the basis of Landau's typology. For this reason, we will follow the same order we used in describing Landau's typology of control. That is to say, we will first look at the properties of OC within Landau's framework and then we will give a list of EC and PC verbs after applying conflicting time adverb test and partial control reading test.

4.3.1 OC in Turkish

In section 4.2.1, we have seen that Landau lists some basic properties of OC PRO (Landau, 1999:43). For ease of reference, we will repeat these properties here in (23):

(23) Properties of OC:

a. Arbitrary Control, in which PRO has no argumental controller, is not possible in OC constructions,

b. Long-Distance Control, in which the controller and the infinitival clause are not clause mates, is not possible in OC constructions,

c. Sloppy reading is possible with OC constructions,

d. *De se* reading of PRO, which refers to a belief about oneself, is possible with OC

Consider the following sentence pairs for the application of these OC properties to Turkish:

(24) a. * John [PRO_{arb} tried to be] quiet

b. *Kaya [PRO_{arb} sessiz olma-ya] çalış-tı.

Kaya quiet to be-inf try-Pst-3S

"Kaya tried to be quiet."

In the examples above, (24a) illustrates that arbitrary control is not possible with OC constructions. The same property can be observed in its Turkish counterpart (24b), which is not grammatical with arbitrary reading since controller can only be interpreted as "Kaya."

(25) a. *$Mary_1$ knew that it disturbed John [PRO_1 to perjure herself]

b. $Emel_i$ [$pro_{i/j}$ kendi-nin yalan yere yemin etme-si-nin] $Kaya_j$'yı

Emel himself/herself-Gen. perjure-Nom-Poss.-Acc. Kaya-Acc

rahatsız et-tiğ-i-ni bil-iyordu.

disturb-VN-Poss-3S-Acc know-PstProg-3S

"Emel knew that it disturbed Kaya to perjure himself/herself"

In (25a), the ungrammaticality of the sentence shows that LD control is not possible in OC. On the other hand, in the Turkish example in (25b), we have a different situation since (25b) is grammatical and the remote antecedent might be interpreted as controller. This is because of the fact that Turkish does not exhibit LD control since embedded verbs, such as the one in (25b), surface with person agreement markers, as we will see later on in the analysis of NOC in Chapter 5.

(26) a. John tried [PRO to leave early,] and Bill did too.

b. John thinks that [PRO feeding himself] will be difficult, and Bill does too.

a'. Kaya [PRO erken git-me-yi] dene-di Umut da öyle yap-tı.

Kaya-Nom early go-inf-Acc try-Pst-3S and Umut too same do-Pst-3S

"Kaya tried to leave early and Umut did too.

b'.Kaya [PRO kendisi-ne bakma-nın] zor ol-acağ-ı-nı düşün-üyor

Kaya-Nom himself feed-Poss difficult to be-VN-Poss-Acc think-Prog-3S

Umut da öyle düşün-üyor

Umut too same think-Prog-3S

"Kaya thinks that PRO feeding himself will be difficult, and Umut does too."

Sentences in (26) illustrate the third property in list (23), which states that OC PRO allows sloppy reading under ellipsis. Similar to OC structure in (26a), Turkish sentence (26a') allows sloppy reading whereby the sentence is interpreted as "Kaya tried to leave early and Umut tried to leave early too." On the other hand, neither the English NOC structure in (26b) and nor the Turkish one in (26b') allows sloppy reading. Therefore, in (26b') the second part of the sentence is interpreted as "Kaya thought that Umut's feeding himself will be difficult."

(27). a. The unfortunate expects [PRO to get a medal].

b. The unfortunate believes that [PRO getting a medal would be boring].

a'. Zavallı$_i$ [PRO$_i$ madalya al-ma-ğı] umu-yor.

Unfortunate medal get-Inf-Acc hope-Prog-3S

"The unfortunate expect to get a medal"

b'. Zavallı$_i$ [PRO$_{arb}$ madalya al-ma-nın] sıkıcı ol-acağ-ı-nı düşün-üyor

Unfortunate medal get-inf-Gen boring to be-VN-Poss3S-acc think-Prog 3S

Sentences in (27) are examples of the last property in list (23). In (27a), we have an OC structure, which is only possible with *de se* reading, which refers to a belief about oneself. Its Turkish counterpart in (27a') is also an OC structure and only allows for the *de se* reading meaning, "the unfortunate expects himself to get a medal." (27b) and (27b'), on the other hand, are NOC structures and allow *de re* reading, in which the unfortunate person believes that for an individual it would be boring to get a medal but this is not a belief about the "self."

As additional properties of OC, in section 4.2.1 we have also seen the following examples from Landau (1999), which provide evidence against the necessity of controller to c-command PRO and the ban against split control in OC. These examples will be repeated here for convenience:

(28) a. Yesterday, it spoiled Mary's$_i$ mood [PRO$_{i/*arb}$to listen to the news].

b. John$_i$ promised his son$_j$ [PRO$_{i+j}$ to go to the movies together].

(Landau, 1999: 43)

Now let us consider the Turkish counterparts of these examples to see if we can extend Landau's argument to Turkish:

(29) a. Dün [$PRO_{i/*arb}$ haberler-i duymak] $Emel_i$'in can-ı-nı sık-tı.

Yesterday news-Acc hear-Inf Emel-Gen mood-Poss-Acc spoil-Pst-3S

"Yesterday it spoiled Emel's mood to listen to the news."

b. $Kaya_i$ oğl-u-na [PRO_{i+j} birlikte sinema-ya gitme-ğe] söz ver-di.

Kaya-Nom son-Poss-Dat together movie-Dat go-inf-Dat promise-Pst-3S

"Kaya promised his son to go to the movies together."

In the above examples, (29a) shows that although the controller is embedded inside the matrix object and fails to c-command PRO, the sentence is still an example of OC. In other words, PRO is obligatorily controlled by "Emel" even though it is not c-commanded by it, indicating that in Turkish the controller of OC does not need to c-command PRO. As for (29b), it is similar to the English example in (28b) in the sense that Turkish allows split antecedents in OC structures.

Therefore, after looking at the basic properties of OC in Turkish, we can say that by and large, the properties listed in (23) hold for Turkish giving us a general picture of OC structures in Turkish. In the next section, we will focus more on the OC category, in particular, on the distinction of two subtypes of OC, i.e. EC and PC in Turkish constructions.

4.3.2. E(xhaustive) C(ontrol) vs. P(artial) C(ontrol) in Turkish

Before we proceed with EC vs. PC distinction in Turkish, let us give an example for each of these categories from Turkish:

(30) a. Kaya$_i$ [PRO$_i$ proje üzerinde çalışma-ğa] başla-dı (EC)
Kaya-Nom project on work-inf-Dat start-Pst-3S
"Kaya started to work on the project"

b. Kaya [PRO$_{1+}$ saat 6'da buluşmak] iste-di. (PC)
Kaya-Nom clock 6-Loc. meet-Inf want-Pst-3S
"Kaya wanted to meet at 6 o'clock"

In the above examples, the sentences in (30) illustrate the two subtypes of OC, EC and PC respectively. The sentence in (30a) is an example of EC because PRO is identical to the controller "Kaya," while (30b) illustrates PC since PRO includes the controller "Kaya" but also some other person/s that "Kaya" wanted to meet.

After exemplifying EC and PC categories in Turkish, we will distinguish EC and PC class verbs and then form a representative list for each category. In order to distinguish EC and PC verbs in Turkish, we will apply two tests: (i) using the collective predicate *buluş-* (to meet) to check the availability of partial control reading, and (ii) using conflicting time adverbs to check if the embedded clause is [+tense] or [–tense].

In this section, we will apply conflicting adverb test onto EC class verbs in list (13). If this group of verbs cannot co-occur with conflicting time adverbs, this will indicate that they are [-tense] meaning they are EC. Please note that our aim in this

section is to form a representative list of EC and PC class of verbs, rather than to provide an exhaustive list:

4.3.2.1 Conflicting time adverbs with EC class of verbs

• Adverb test on implicative verbs:

(31a) -(y)I+Verb

Dün Kaya problem-i yarın çöz-me-ği *hatırla-dı[12]/*unut-tu/

Yesterday Kaya-Nom problem-Acc tomorrow solve-inf-Acc remember/forget/

*reddet-ti/*ihmal et-ti.

decline/neglect-Pst-3S

"Yesterday, Kaya remembered/forgot/declined/neglected to solve the problem tomorrow."

(31b) -(y)A+ Verb

Dün Kaya problem-i yarın çözme-ğe *cesaret et-ti/*tenezzül et-ti/

Yesterday Kaya-Nom problem-Acc tomorrow solve-inf-Dat dare/condescend/

*zahmet et-ti /*Emel'i zorla-dı/ikna et-ti

bother /Emel-Acc/ force/compel/get-Pst-3S

"Yesterday Kaya dared/condescended/bothered to solve the problem tomorrow/

Yesterday Kaya forced/compelled/got Emel to solve the problem tomorrow."

---

[12] (i) Yarın Kaya dün problem-i çöz-müş olma-ğı hatırla-yacak
Tomorrow Kaya yesterday problem-Acc solve-Part be-Inf-Acc remember-Fut
"Tomorrow Kaya will remember having solved the problem yesterday"
As seen in (1), for some speakers of Turkish, implicative verbs such as *hatırla-* (remember) are compatible with conflicting time adverbs when the embedded verb is marked with the particle form -mIş and then used with *olmak* (to be), which is marked with the infinitival suffix -mAK. However, please note that in (i), –mIş might be denoting aspect rather than tense. For this reason, we take the implicative verbs such as *hatırla-* (remember) as EC verbs.

(31c) –dA+Verb

Dün Kaya problem-i yarın çözmek-te *başarısız ol-du.

Yesterday Kaya-Nom tomorrow problem-Acc solve-inf-Loc fail-Pst-3S

"Yesterday Kaya failed to solve the problem tomorrow"

(31d) –dAn+Verb

Dün Kaya problem-i yarın çözmek-ten *sakın-dı/*kaçın-dı.

Yesterday Kaya-Nom problem-Acc tomorrow solve-inf-Abl avoid/refrain-Pst-3S

"Yesterday Kaya avoided/refrained from solving the problem tomorrow."

As we can see in the examples above, when we apply the conflicting time adverb test, we see that the verbs in this list are [–tensed] or, in other words, EC verbs. Thus, a representative list of implicative EC verbs includes: *cesaret et-* (dare), *tenezzül et-* (condescend), *zahmet et-* (bother), *zorla-* (force/compel), *hatırla-* (remember), *reddet-* (decline), *ihmal et-* (neglect), *sakın-* (avoid), *kaçın-* (refrain from) and *başarısız ol-* (fail).

◦ Adverb test on aspectual verbs

(32a) -(y)I+Verb

Dün Kaya problem-i yarın çözme-ği *bitir-di/*durdur-du.

Yesterday Kaya problem-Acc tomorrow solve-inf-Acc finish/stop-Pst-3S

"Kaya finished/stopped to solve the problem tomorrow"

(32b) -(y)A+ Verb

Dün Kaya problem-i yarın çözme-ğe *başla-dı/

Yesterday Kaya-Nom problem-Acc tomorrow solve-inf-Dat begin/start

*yeniden başla-dı /*devam et-ti.

resume/continue-Pst-3S

"Yesterday Kaya began/started/resumed/continued to solve the problem tomorrow"

By looking at the results of conflicting time adverbs test in (32a) and (32b), we can say that a sample list of aspectual EC verbs in Turkish consists of *başla-* (begin/start), *yeniden başla-* (resume), *devam et-*(continue), *bitir-* (finish) and *durdur-* (stop) since they are [-tense].

• Adverb test on modal verbs

Before we start applying our adverb test onto modal verbs, we will take out some verbs from the list (13) right away because only a limited set of modal verbs from the group in (13c) can be formed with the infinitival –mAK. These modal verbs consist of *zorunda ol-/zorunda kal-* (have to), *mümkün ol-* (to be possible) and *lazım/gerekli ol-* (to be necessary). Nevertheless, *mümkün ol-* (to be possible) and *lazım/gerekli ol-* occur only in NOC constructions and in particular in arbitrary control constructions as the following sentences illustrate:

(33) Burada [PRO_{arb} sigara iç-mek] mümkün.

Here smoke-inf possible

"It is possible to smoke here."

(34) Her gün en az bir litre [PRO_{arb} su iç-mek] lazım/gerekli.

Everyday at least one liter water drink necessary

"It is necessary to drink at least one liter of water every day"

After eliminating modal verbs that cannot occur in OC constructions, we are left with *zorunda ol-* (have to) and its synonymous *zorunda kal-*. Let us apply the conflicting adverb test to see whether clauses with this verb are [+ tense] or [-tense]:

(35) Dün Kaya problem-i yarın çöz-mek *zorunda-ydı/*zorunda kal-dı.

Yesterday Kaya-Nom problem-Acc tomorrow solve-inf have to-Pst-3S

"Yesterday, Kaya had to solve the problem tomorrow."

As (35) illustrates, *zorunda ol-/zorunda kal-* (have to) is [-tense] indicating that it is an EC verb rather than a PC verb.

4.3.2.2 Conflicting time adverbs with PC class of verbs

• Adverb test on Factives:

Before we apply our conflicting adverb test to factives, we should note that according to Özsoy (1999) and Kornfilt (1984), in general factivity in Turkish is expressed with nominalizing suffixes such as -DIK and –(y)AcAK rather than with -mAK. Thus, we will eliminate some of the factive verbs from the group (14d) since they only allow embedding with -DIK and –(y)AcAK. These verbs are *memnun ol-* (to be glad), *üzül-* (to be sad), *şaşır-* (to be surprised), *şok ol-* (to be shocked) and *üzgün ol-* (to be sorry). Please also note that we do not take *iğren-* (loath), which is one of the verbs in

list (14d), as a control verb due to the fact in Turkish the verb *iğren-* favors an NP complement rather than a clausal complement.

Let us apply our tests to remaining verbs in the list, which are *pişmanlık duy-* (regret), *nefret et-* (hate), *sev-* (like) and *sevme-* (dislike):

(36a) –(y)I+Verb

Bugün Kaya problem-i geçen hafta çözme-ği *sev-di/*sevme-di

Today Kaya-Nom problem-Acc last week solve-Acc like/dislike-Pst-3S

"Today Kaya liked/disliked solving the problem last week."

(36b) –dAn+Verb

Bugün Kaya problem-i geçen hafta çöz-mek-ten pişmanlık duy-du/ nefret et-ti.

Today Kaya problem-Acc last week solve-Inf-Abl regret/hate-Pst-3S

"Today Kaya regretted /hated/ having solved the problem last week"

As we can see in (36a) and (36b), only *pişmanlık duy-* (regret) and *nefret et-* (hate) can co-occur with conflicting time adverbs indicating that they are [+tense]. Thus, our representative group of factive PC verbs in Turkish includes *pişmanlık duy-* (regret) and *nefret et-* (hate).

• Adverb test on Propositional verbs:

Now let us continue with the next group in our list of PC verbs, which are propositional verbs. We will not be able to apply our tests to this group because in Turkish propositional structures are formed with nominalizers –DIK and –(y)AcAK or –

mA+Poss. ending, which are distinct from the constructions with the infinitival –mAK. Therefore, we will not treat propositional verbs as PC verbs.[13] As an example, consider the following sentence:

(37) Kaya Emel'e [*pro* erken gel-diğ-i-ni] söyle-di.
Kaya-Nom Emel-Dat early come-VN-Poss3S-Acc say-Pst-3S
"Kaya told Emel that he came early."

In the above sentence, because the verb bears Possessive 3rd person singular agreement, in line with our discussion in Chapter 3, we have represented the empty category as *pro*. As we can see in (37), these structures are formed with verb nominalizing suffixes rather than the infinitival –mAK.

• Adverb test on Desideratives:

(38a) -(y)I+Verb

Dün Kaya problem-i yarın çözme-ği iste-di/tercih et-ti/ayarla-dı/ümit et-ti
Yesterday Kaya problem-Acc tomorrow solve-Inf-Acc- want/prefer/arrange/hope/
reddet-ti/planla-dı/arzula-dı/aklına koy-du/talep et-ti/seç-ti/öner-di/
kabul et-ti/kastet-ti.
refuse/plan/aspire/ resolve/demand/choose/ offer/agree-mean-Pst-3S
"Yesterday, Kaya wanted/preferred/arranged/hoped/refused/planned/aspired/
resolved/demanded/ chose/offered/agreed/meant to solve the problem tomorrow"

[13] Please note that in Chapter 5, we will discuss the nature of the empty category in –mA structures by contrasting it with structures formed with –DIK and –(y)AcAk.

(38b) –(y)A+Verb

Dün Kaya problem-i yarın çözme-ğe niyet et-ti/karar ver-di/söz ver-di/
Yesterday Kaya-Nom problem-Acc tomorrow solve-Inf-Dat intend/decide/promise
istekli-ydi/hazır-dı.
eager/ready-Pst-3S
"Yesterday Kaya intended/decided/promised/was eager/ready to solve the problem tomorrow"

(38c) –dAn+Verb

Dün Kaya problem-i yarın çöz-mek-ten kork-tu.
Yesterday Kaya-Nom problem-Acc tomorrow solve-Inf-Abl afraid-Pst-3S
"Yesterday Kaya was afraid to solve the problem tomorrow"

The results of conflicting adverbs test show that desiderative verbs consist of a larger group of PC verbs compared to factives in Turkish. This group includes the following verbs: *iste*-(want), *tercih et-* (prefer), *ayarla*-(arrange), *ümit et-* (hope), *reddet-* (refuse), *planla-* (plan), *arzula-* (aspire), *aklına koy-* (resolve), *talep et-* (demand), *seç-* (choose), *öner-* (offer), *kabul et-* (agree), *kastet-* (mean), *niyet et-* (intend), *karar ver-* (decide), *söz ver-* (promise), *istekli ol-* (to be eager), *hazır ol-* (to be ready) and *kork-* (to be afraid of).

• Adverb test on Interrogatives:

After analyzing desiderative verbs in Turkish, let us continue with the last group in list (14), which is "interrogatives." Like factives and propositonal verbs, interrogatives in Turkish are not formed with the infinitival –mAK. In general, Turkish interrogatives are usually formed with –DIK/(y)AcAK, which are not control structures. Consider the following sentences:

(39) a. John wondered [PRO where to start]

b. Kaya$_i$ [*pro*$_i$ nere-den başla-yacağ-ı-nı] merak et-ti.

Kaya where-Abl start-VN-Poss3S –Acc wonder-Pst-3S

"Kaya wondered where to start."

(40) a. John contemplated [how PRO to solve the problem]

b. Kaya$_i$ [problem-i nasıl *pro*$_i$ çöz-eceğ-i-ni] düşün-dü.

Kaya-Nom problem-Acc how solve-VN-Poss-3S think-Pst-3S

"Kaya wondered how to solve the problem."

In the sentences above, similar to the examples with propositional verbs we have seen earlier in (37), the infinitival bears 3rd person singular agreement morphology. Therefore, we will uniformly treat the empty category in these examples as instances of *pro*.

4.3.2.3 Partial control reading with PC class of verbs

In this section, we will check the availability of partial control reading in PC group of verbs by using collective predicate *buluş-* (meet):

• Availability of partial control reading in factives:

(41a) -(y)I+Verb

Kaya$_1$ saat 6'da [PRO$_{1+}$buluş-ma-ğı] sev-er/sev-mez.

Kaya-Nom o'clock 6-Loc meet-Inf-Acc like/dislike-Prst-3S

"Kaya liked/disliked meeting at 6 o'clock"

(41b) –dAn+Verb

Kaya$_1$ saat 6'da [PRO$_{1+}$ buluş-mak-tan] pişmanlık duy-du/nefret ed-iyor.

Kaya-Nom clock 6-Loc meet-Inf-Abl regret-Pst-3S/hate Prog-3S

"Kaya regretted/hated meeting at 6 o'clock."

According to the partial control reading test, all the verbs in (41a) and (41b) allow partial control interpretation. Thus, looking at both the results of adverb test in (36) and the partial control reading test in (41), we can say that a sample group of the factive PC verbs in Turkish consists of *pişmanlık duy-* (regret) and *nefret et-* (hate).

Please note that we will skip propositional and interrogative verbs and continue with desideratives since as we noted earlier, these groups of verbs in Turkish take nominalized complements rather than infinitival control structures.

• Availability of partial control reading in desideratives:

(42a) –(y)I+Verb

Kaya$_{I}$ [saat 6'da PRO$_{I+}$ buluş-ma-ğı] iste-di/tercih et-ti/ayarla-dı/ümit et-ti

Kaya-Nom clock 6-Loc meet-inf-Acc want/prefer/arrange/hope

/reddet-ti/planla-dı/arzula-dı/aklına koy-du/talep et-ti/seç-ti/öner-di/kabul et-ti/

kastet-ti.

refuse/plan/aspire/resolve/demand/choose/ offer/agree-mean-Pst-3S

"Kaya wanted/preferred/arranged/hoped/refused/planned/aspired/resolved/

demanded chose/offered/agreed/meant to meet at 6 o'clock."

(42b) –(y)A+Verb

Kaya$_{I}$ [saat 6'da PRO$_{I+}$ buluş-ma-ğa] niyet et-ti/karar ver-di/söz ver-di/

Kaya-Nom clock 6-Loc meet-Inf-Dat intend/decide/promise-Pst 3S

istekli-ydi/hazır-dı

/to be eager/ready-Pst 3S

"Kaya intended/decided/promised/was eager/ready to meet at 6 o'clock."

(42c) –dAn+Verb

Kaya$_{I}$ [saat 6'da PRO$_{I+}$ buluş-mak-tan] kork-tu.

Kaya-Nom o'clock 6-Loc meet-Inf-Abl afraid-Pst-3S

"Kaya was afraid to meet at 6 o'clock."

Both the results of partial control reading test and the adverb test indicate that desiderative verbs consist of a larger group of PC verbs compared to factives in Turkish.

Thus, the desiderative group of PC verbs includes: *iste-*(want), *tercih et-* (prefer), *ayarla-*(arrange), *ümit et-* (hope), *reddet-* (refuse), *planla-* (plan), *arzula-* (aspire), *aklına koy-* (resolve), *talep et-* (demand), *seç-*(choose), *öner-* (offer), *kabul et-* (agree), *kastet-* (mean), *niyet et-* (intend), *karar ver-*(decide), *söz ver-* (promise), *istekli ol-* (to be eager), *hazır ol-* (to be ready) and *kork-* (to be afraid of).

4.3.2.4 Partial control reading test with EC class of verbs

• Availability of Partial Control reading in implicatives:

(43a) –(y)I+Verb

Kaya$_1$ [saat 6-da PRO$_1$+ buluş-ma-ğı] hatırla-dı/unut-tu/

Kaya-Nom clock six-Loc meet-inf-Acc remember/forget

reddet-ti/ihmal et-ti.

decline/neglect-Pst-3S

"Kaya remembered/forgot/decline/neglected to meet at 6 o'clock."

(43b) –(y)A+Verb

Kaya$_1$ [sonunda saat 6-da PRO$_1$+ buluş-ma-ğa] cesaret et-ti/ tenezzul et-ti/ zahmet

Kaya-Nom finally clock six-Loc meet-inf-Dat dare/condescend/bother/

et-ti / Emel'i zorla-dı/ikna et-ti.

Emel-Acc force/compel/get-Pst-3S.

"Kaya dared/condescend/bothered to meet at 6 o'clock/ Kaya forced/compelled/got Emel to meet at 6 o'clock."

(43c) –dA+Verb

Kaya$_1$ [saat 6-da PRO$_1$+ buluş-mak-ta] başarısız ol-du.

Kaya-Nom clock six-Loc meet-Inf-Loc fail-Pst-3S.

"Kaya failed to meet at 6 o'clock."

(43d) –dAn+Verb

Kaya$_1$ [saat 6-da PRO$_1$+ buluş-mak-tan] sakın-dı/kaçın-dı.

Kaya-Nom clock six-Loc meet-inf-Abl avoid/refrain-Pst-3S

"Kaya avoided/refrained from meeting at 6 o'clock."

When we look at the sentences above, we see that within a certain context implicative verbs, which are listed under EC category, seem to occur with the collective predicate *buluş-* (to meet), which triggers PC reading. However, when used with a collective predicate, these verbs usually require an object pronoun such as *onunla* (with him/her) reading so without a prior discourse that allows *onunla* to be dropped, these sentences are not completely OK. On the other hand, a real partial control structure, such as *Kaya 6'da buluşmayı istedi* (Kaya wanted to meet at 6) does not necessarily require *onunla*. In addition to this, we believe that conflicting adverbial test gives more reliable results since the distinction between EC and PC is mainly determined according to whether the embedded infinitival clause is tensed or not. For this reason, relying on the results of conflicting adverbial test rather than partial control reading test, we get a representative list of implicative EC verbs in Turkish, which consists of these verbs:

cesaret et- (dare), *tenezzül et-* (condescend), *zahmet et-* (bother), *zorla-* (force/compel), *hatırla-* (remember), *reddet-* (decline), *ihmal et-* (neglect), *sakın-* (avoid), *kaçın-* (refrain from) and *başarısız ol-* (fail).

• Availability of Partial Control reading in aspectual verbs:

(44a) –(y)I+Verb

Kaya$_1$ [saat 6'da PRO$_{1+}$ buluş-ma-ğı] *bitir-di/*durdur-du[14].

Kaya-Nom o'clock 6-Loc meet-Inf-Acc finish/stop-Pst-3S

"Kaya finished/stopped meeting at 6 o'clock."

(44b) Kaya$_1$ [saat 6-da PRO$_{1+}$ buluş-ma-ğa]*başla-dı/*yeniden başla-dı /*devam et-ti.

Kaya-Nom o'clock 6-Loc meet-Inf-Dat begin-start/resume/continue-Pst-3S

"Kaya began/started/resumed/continued to meet at 6 o'clock"

(44a) and (44b) above show that aspectual verbs do not allow partial control reading. We have also seen in (32) that these verbs cannot co-occur with conflicting time adverbs, which means they are [–tense]. Thus, by looking at the results of both partial control reading test and adverb test, we can say that a sample list of aspectual EC verbs in Turkish includes the verbs *başla-*(begin/start), *yeniden başla-* (resume), *devam et-* (continue), *bitir-* (finish) and *durdur-* (stop).

• Availability of Partial Control Reading in Modals:

As we noted in the discussion of conflicting time adverb test on modals, we eliminated some verbs from (13c) since they do not occur in OC structures. Therefore, we will apply partial control reading test only to the verb *zorunda ol-/zorunda kal-* (have to):

(45) Kaya$_1$ [saat 6-da PRO$_{1+}$ buluş-mak] zorunda-ydı/zorunda kal-dı.
Kaya o'clock 6-Loc meet-Inf have to-Pst-3S
"Kaya had to meet at 6 o'clock"

As we can see in the sentence in (45), although *zorunda ol-/zorunda kal-* (have to) appears to act like a PC verb according to the partial control reading test, similar to the implicative verbs we discussed in (43), the sentence does not sound OK without *onunla* (with him/her) in the absence of a prior context. Apart from this, the adverb test in (35) clearly shows that *zorunda ol-* (have to) cannot co-occur with conflicting time adverbs indicating that it is not tensed. Therefore, we take *zorunda ol-/zorunda kal-* (have to) as an EC verb.

4.3.2.5. EC and PC class of verbs in Turkish

According to the adverb test and partial control reading test that we applied in the previous sections, a representative list of EC and PC class can be shown as the following:

[14] Please note that "buluşma" might either mean "meeting" or "to meet" and that when we take "buluşma" as meeting, *i.e* as a noun, the sentence is grammatical. However, since we are testing the availability of partial reading in

(46)EC class of verbs in Turkish:

Implicatives: *cesaret et-* (dare), *tenezzül et-* (condescend), *zahmet et-* (bother), *zorla-* (force/compel), *hatırla-* (remember), *reddet-* (decline), *ihmal et-* (neglect), *sakın-* (avoid), *kaçın-* (refrain from) and *başarısız ol-* (fail).

Aspectual: *başla-*(begin/start), *yeniden başla-* (resume), *devam et-*(continue), *bitir-* (finish) and *durdur-* (stop).

Modal: *zorunda ol-/zorunda kal-* (have to)

(47) PC class of verbs in Turkish:

Factives: *pişmanlık duy-* (regret) and *nefret et-* (hate).

Desideratives: *iste-(*want), *tercih et-* (prefer), *ayarla-*(arrange), *ümit et-* (hope), *reddet-* (refuse), *planla-* (plan), *arzula-* (aspire), *aklına koy-* (resolve), *talep et-* (demand), *seç-* (choose), *öner-* (offer), *kabul et-* (agree), *kastet-* (mean), *niyet et-* (intend), *karar ver-* (decide), *söz ver-* (promise), *istekli ol-* (to be eager), *hazır ol-* (to be ready) and *kork-* (to be afraid of).

What this list shows is that the set of PC verbs in Turkish is more limited compared to the English one given in (14). This is due to the fact that in Turkish nominalizers –DIK and (y)AcAK are commonly used to form factive, propositional and interrogative complements in Turkish. We assume that in Turkish –DIK and -(y)AcAK nominalizers do not form obligatory control complements, since the empty categories

OC complement structures, we take the sentence to be ungrammatical with the infinitival "to meet," meaning.

that surface in these constructions should be treated as *pro* due to the agreement morphology these nominalizers induce.

4.3.2.6 Interim Summary

In this section, we started to describe a general typology of control for Turkish by taking the typology presented in Landau (1999) as a starting point. To this end, we first looked at the properties of OC and we have seen that by and large the properties, which Landau outlines for OC, hold for Turkish as well.

Then, we focused on EC and PC categories since they form a substantial part of Landau's typology. To distinguish EC and PC verbs, we had two tests, which were a) using conflicting temporal adverbs to check whether the complement is tensed or tenseless and b) using collective predicate *buluş-* (to meet) to check the availability of PC reading. According to the results of these tests, we gave a representative list of EC and PC class of verbs noting that Turkish PC verbs form a smaller set compared to the one in English since Turkish uses the nominalizers –DIK and –(y)AcAK as a common strategy to form factive, propositional and interrogative complements. In the following section, we will take a look at the application of Agree mechanism in Turkish since it is the syntactic mechanism that underlines the distinction between EC and PC categories.

4.4. Agree in Turkish

Consider the derivations given in (49) for the sentences in (48) to check whether the Agree mechanism presented in section 4.2.2 is applicable to Turkish:

(48) a. Kaya$_1$ [PRO$_1$ saat 6'da çalış-ma-ğa] *başla*-dı (EC verb)

Kaya-Nom clock 6-Loc work-Inf-Dat start-Pst-3S

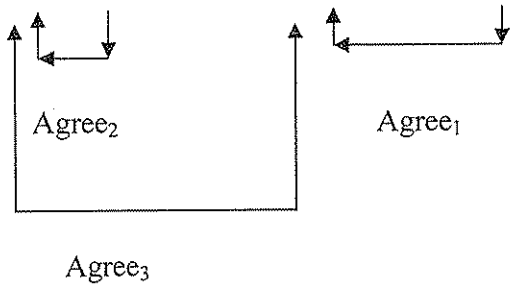
"Kaya started to work at 6 o'clock"

b. Kaya$_1$ [PRO$_{1+}$ saat 6'da buluş-mak] *iste*-di. (PC verb)

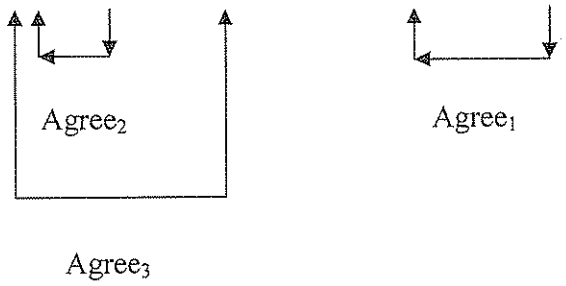
Kaya-Nom clock 6-Loc. Meet-Inf want-Pst-3S

"Kaya wanted to meet at 6 o'clock"

(49) a. .....[F...Kaya...[$_{CP}$ [$_{TP}$ PRO T-Agr [$_{VP}$ t$_{PRO}$ çalış-...]]]] Exhaustive Control (EC)



b. .....[F...Kaya [$_{CP}$ T-Agr [$_{TP}$PRO t $_{T\text{-}Agr}$ [$_{VP}$ t$_{PRO}$ buluş- ....]]]] Partial Control (PC)



In line with the Agree mechanism proposed by Landau (1999), Agree operates on the features of F (here T since it is subject control), DP (John) and PRO. In this operation, first, Agree$_1$ matches the phi-features of T-Agr and PRO. The EC

complement formed with the verb *çalış-* (work) is untensed as the following example illustrates:

(50) * *Dün* Kaya$_i$ *yarın* [PRO$_i$ saat 6'da çalış-ma-ğa] *başla*-dı (EC verb)
Yesterday Kaya-Nom tomorrow clock 6-Loc work-Inf-Dat start-Pst-3S
"Yesterday Kaya started to work tomorrow at 6 o'clock"

Since the embedded clause is untensed as (50) illustrates, there is no motivation for T-to-C movement and Agr remains in situ. Then, the matrix head F enters into two Agree relations with the controller. In Agree$_2$ the features of F and the controller "Kaya" are matched. At this stage, F inherits the semantic number of "Kaya," which is singular. Next, in Agree$_3$ the phi-features of F and PRO are matched and PRO inherits the semantic number too. Since PRO can inherit semantic number of "Kaya," the EC reading is licensed. What is crucial in this derivation is that PRO can inherit semantic number directly and that the complement is not tensed.

As for the derivation in (49b), the sentence is formed with *iste-* (want), which is a PC verb. Therefore, the embedded clause is tensed as the following example illustrates:

(51) *Dün* Kaya$_i$ *yarın* [PRO$_{i+}$ saat 6'da buluş-mak] *iste*-di.
Yesterday Kaya-Nom tomorrow clock 6-Loc. meet-Inf want-Pst-3S
"Yesterday Kaya wanted to meet at 6 o'clock tomorrow"

Keeping in mind that the embedded clause in (48b) is tensed, let us analyze the derivation in (49b). In this derivation, Agree operates on the features of F (T in this

case), DP and T-Agr. First, in $Agree_1$, the phi-features of Agr and PRO are matched. At this stage, since the infinitival complement is tensed, its head bears an uninterpretable T-feature. This forces T-Agr to move to C. Next, $Agree_2$ matches the features of the controller DP and F, which inherits the semantic number. Then, $Agree_3$ can target T-Agr to match the phi-features of F and T-Agr. It is important to note that at this stage, the matrix F cannot directly agree with the embedded PRO due to Phase Impenetrability Condition since T-Agr is at C head. Thus, semantic number cannot be transmitted to PRO since PRO enters the derivation without semantic number and $Agree_1$ does not include a semantic number. Therefore, PRO inherits all phi-features from the controller but not the semantic number. What is important in this derivation is that T moves to C to check its uniterpretable T-feature and causes a blocking effect on agreement, which results in PC reading.

4.5. Conclusion

In this chapter, we have introduced Landau's typology of control and then in line with this typology, we have analyzed OC properties in Turkish and its two subcategories. We have also given a representative list of EC and PC class of verbs by applying conflicting time adverb test and by checking the availability of partial control reading. Finally, we have also tested the applicability of Agree mechanism to Turkish since this mechanism underlines the distinction between EC and PC verbs. Thus, on the basis of our observations in this chapter, we would like to give a typology of control for OC category in Turkish as the following:

Table 2: Obligatory Control (OC) in Turkish

OC in Turkish	
Exhaustive Control (EC) Distribution: Tenseless infinitives Mechanism: Agree EC class of verbs: Implicatives, Aspectual Modal (limited)	Partial Control (PC) Distribution: Tensed infinitives Mechanism: Agree PC class of verbs: Factives (limited) Desideratives

In the following chapter, we will focus on NOC and exceptional cases of OC, which will complete the table we have given above.

CHAPTER 5

NOC AND EXCEPTIONAL CASES OF OC IN TURKISH

5.1 Introduction

In the previous chapter, we have presented Landau's typology of control and introduced Obligatory Control (OC) in Turkish along with the two subtypes of OC, namely, Exhaustive Control (EC) and Partial Control (PC). In this chapter, we will focus on NOC and exceptional cases of control in Turkish.

This section will have the following outline: We will first take a look at the embedded constructions derived with the nominalizer –mA, which exhibit OC-like properties in Turkish. Then, we will analyze certain temporal adjunct clauses, which show properties of logophoric control. Next, we will look into the cases of arbitrary control in Turkish. Then, we will continue with specific OC cases in Turkish, which form exceptions for OC category, such as control into subject clauses, control into purpose clauses and OC in the absence of a c-commanding antecedent.

5.1.1 –mA structures

In this section, we will focus on embedded clauses derived with the nominalizer –mA in Turkish, which act like OC constructions since they do not allow disjoint reference as the following sentences illustrate:

(1) Ali$_j$ biz$_i$-e [*pro*$_{i/*j/*k}$ git-me-miz-i] söyle-di

Ali we-Dat go-Inf-VN-Acc say-Pst-3S

"Ali told us to go"

(2) Ali_j siz_i-e [$pro_{i/*j/*k}$ git-me-niz-i] söyle-di

Ali we-Dat go-VN-1P-Acc say-Pst-3S

"Ali told you to go."

(3) $Umut_j$ $Emel_i$'e [$pro_{i/*j/*k}$ erken gel-me-sin-i] söyle-di

Umut-Nom Emel-Dat early come-VN-Poss3-Acc tell-Pst-3sg

"Umut told Emel to come early"

In this respect, -mA structures contrast with other types of embedded structures in Turkish derived via the nominalizers –DIK and –(y)AcAK as the following example illustrates:

(4) $Emel_i$ [$pro_{i/k}$ erken gel-diğ-in-i/ gel-eceğ-in-i] söyle-di.

Emel-Nom early come-VN-Poss3-Acc tell-Pst-3S

"Emel said that she/he came/would come early"

Note that earlier in Chapter 3, we said that in Turkish empty categories which appear with agreement markers on embedded verbs are of the category *pro*. Therefore, we have presented empty categories found in sentences (1) through (4) as *pro*, as well[15]. However, a closer examination of these sentences above reveals a difference between

[15] For some Turkish speakers, the null element in (3) can be replaced with an overt pronoun, which might be due to a dialectical variation. At any rate, this might be considered as another reason for representing the empty category in (3) with *pro* rather than PRO.

the nature of empty categories in structures formed with –mA and the ones formed with –DIK/(y)AcAK.

For instance, in sentence (3), the antecedent of *pro* can only be "Emel," but not an external third person showing that *pro* in (3) exhibits OC properties. In sentence (4), on the other hand, the antecedent of *pro* might be "Emel" or a third person set in the discourse as the following context illustrates:

(5) A: Ahmet$_k$ erken geldi mi/gel-ecek mi?

Ahmet early come-Pst-3S/ come-Fut 3S Q-marker

"Did/Will Ahmet come early?"

B: Bil-mi-yor-um ama Emel$_i$ [*pro*$_k$ erken gel-diğ-i-ni/gel-eceğ-in-i] söyle-di.

know-Neg-Prog-1S but Emel-Nom early come-VN-3S-Acc say-Pst-3S

"I don't know but Emel says that he came/would come early."

As (5) illustrates, *pro* might refer to an external person in (4) rather than "Emel," which contrasts with the –mA structure in (3). Because in (3), although we have a *pro*, its co-reference possibilities are restricted as in OC constructions. Then, the question is whether we are really dealing with *pro*, a true pronominal, which allows for external co-indexation in cases like (3), or not? If this is the case then what limits coreference possibilities of *pro* in these constructions.

As an alternative option, given that these structures exhibit the properties of OC constructions, can we say that what we are dealing with is not *pro* but PRO, which in these cases exceptionally appears in the presence of agreement?

So far we assumed that *pro* appears in the presence of agreement, which is a widely accepted view in the literature on Turkish linguistics (Kornfilt 1984, Özsoy 1987). In order to be consistent with that view, which we have also adopted in the preceding chapters, we would still like to assume that the empty category in –mA structures is *pro*. Then we should account for why the co-reference possibilities of *pro* are limited in –mA structures in Turkish.

Borer (1989) proposes that in control structures what we are dealing with is not a PRO but a *pro,* which is licensed by an anaphoric Agr. Let us consider the following subject control structure within Borer's Anaphoric Agr proposal:

(6) $John_i$ tried $[_{CP}\ INFL_i\ [_{IP}\ pro_i\ [_{INFL}\ \ e_i\ [$ to leave]].

(Borer, 1989:75)

According to Borer, in (6) the empty category, which is canonically analyzed as PRO should be analyzed as *pro*. Borer argues that "John" is the antecedent of the infinitival AGR transmitting a referential index to it. Then, the INFL node containing this AGR, which is moved to the COMP position, is co-indexed with *pro* and transmits this referential index to *pro*. This creates a referential dependence between "John" and "*pro.*"

Therefore, in Borer's proposal control boils down to binding of the empty category by the anaphoric Agr, which should be represented as *pro*. As another example, let us consider the following sentences from Hebrew:

(7) a. Talila$_j$?amra le-Itamar$_i$ she *pro$_i$* hicliax

Talila said to-Itamar that succeed-F-Sg

"Talila told Itamar that he succeeded"

b. *Talila$_j$?amra le-Itamar$_i$ she *pro$_i$* macliax be-bxinot

Talila said to-Itamar that succeeds-M-Sg in tests

"Talila said to Itamar that he succeeds in tests (habitually)"

(Borer, 1989:93)

As we can see in the sentences above, the grammaticality of (7a) shows that *pro* can be licensed in the simple past tense in Hebrew while the ungrammaticality of (7b) shows that licensing of *pro* is not possible in the simple present tense. In order to account for this difference, Borer (1989) argues that the person feature in past Agr is anaphoric whereas in present tense there is no person slot disallowing the licensing of *pro* in Hebrew in present tense.

Given that the reference of *pro* in –mA structures is limited, along the lines of Borer (1989), we can suggest that this has to do with the anaphoric nature of Agr in –mA structures in Turkish. Being anaphoric in nature this Agr must be bound by a matrix argument, which in return limits the referential properties of *pro* in the embedded clause. That is why *pro* in example (3) can only be coreferential with "Emel." This is what causes the OC-like behavior of these constructions.

Although –mA constructions are infinitival (or gerundive) in nature, the fact that they can co-occur with conflicting time adverbs implies that they must be tensed in parallel to the PC constructions that we have discussed in Chapter 4. Let us consider the following example:

(8) *Dün* Umut$_j$ Emel$_i$'e [*yarın pro*$_i$ erken gel-me-sin-i] söyle-di.

Yesterday Umut-Nom Emel-Dat tomorrow early come-VN-Poss3S-Acc tell-Pst-3S

"Yesterday Umut told Emel to come early tomorrow"

As we can see in the sentence above, -mA structures can occur with conflicting time adverbs indicating that the embedded clause is tensed. Since being tensed is a property of PC category in Landau's typology, which is a type of OC, we can assume a derivation for –mA structures similar to the one proposed for PC constructions.

Given that –mA structures are tensed, on a par with the derivation of PC structures, there should be a T-to-C movement involved in their derivation. Assuming that there is T-to-C movement in Turkish along the lines of Kural (1999), first, T-Agr raises to C to check the uninterpretable T feature of C in the tensed clause. (Pesetsky & Torrego, 1999). Being anaphoric, Agr must find an antecedent, which is achieved via Agree. Once the matrix object forms an Agree relationship with the matrix F, namely the v head here, then, another Agree operation can be established between F and the anaphoric Agr on T-Agr in the embedded C head. Then this anaphoric Agr indirectly specifies the reference of *pro* in (3), similar to the cases of (1)-(2).

Note that as we mentioned above, it is also possible to consider the empty category in (3) as PRO rather than *pro*. Then, we can claim that here, too, we are really dealing with a PC construction, which slightly differs from the PC structures we have seen in Chapter 4 as in this case the Agr on C is morphologically realized. However, we should also note that taking the empty category in –mA structures as PRO raises concerns with regard to the commonly expected view that there is a direct relation between agreement morphology and *pro* (Kornfilt 1984, Özsoy 1987). Öztürk (1999,

2001 and 2006) voices this concern by arguing that there is not necessarily a direct correlation between agreement morphology and the presence of *pro*. We will leave the investigation of this topic for further research.

5.1.2 Logophoric control in temporal adjunct clauses

Turkish temporal adjunct clauses such as *(y)InCA* (when), *–mAdAn önce/sonra* (before/after doing smth) and *–DIktAn önce/sonra* (before after having done smth) illustrate control as can be seen in the following examples:

(9) $Umut_i$ $Emel_j$'i [$PRO_{i/j}$ gel-ince] ara-dı

Umut-Nom Emel-Acc come-when call-Pst-3S

"Umut called Emel when Umut/Emel came"

(10) $Umut_i$ $Emel_j$'i [$PRO_{i/j}$ gel-me-den önce] ara-dı

Umut-Nom Emel-Acc come-Inf-before call-Pst-3S

"Umut called Emel before Umut came"

(11) $Umut_i$ $Emel_j$'i [$PRO_{i/j}$ gel-dikten sonra] ara-dı.

Umut-Nom Emel-Acc come-after call-Pst-3S

"Umut called Emel before Umut/Emel came"

In sentences (9) through (11), we represented the empty category as PRO since the embedded verb does not bear any agreement morphology. Here it is not possible to argue that MLC, which requires the closest DP to be the controller, can predict the

controller because in all these sentences, the antecedent of PRO can be either "Umut" or "Emel."[16] Note that as these clauses are temporal adjuncts, in accordance with Cinque (1999) they must be TP adjuncts. Given their positions at the TP level, it is not possible to account for their coindexation possibilities through MLC. This implies that neither of these antecedents can be licensed syntactically, but there must be other pragmatic factors determining the choice of the controller such as focus, perspective and the center of communication.

What is interesting is that even if we scramble the object NP, the flexibility of co-indexation possibilities remains the same. As noted by Sumru Özsoy (p.c), if we start the sentence with the adjunct clause, co-indexation changes. However, within a certain context, the coindexation possibilities remain the same even when we start the sentence with the adjunct clause. Consider the following examples:

(12) a. Emel$_j$'i Umut$_i$ [PRO$_{i/j}$ gel-me-den önce] ara-dı

Emel-Acc Umut-Nom come-Inf-before call-Pst-3S

"Umut called Emel before Umut/Emel came"

b. [PRO$_{i/*j}$ gel-me-den önce] Umut$_i$ Emel$_j$'i aradı

come-Inf-before Umut-Nom Emel-Acc call-Pst-3S

"Umut called Emel before Umut came"

[16] Öztürk (2006) argues that the antecedent of PRO in (9) through (11) can be "Umut," or "Emel" or an external person. Since according to Öztürk's judgements, the antecedent can also be an external person, she argues that the empty category here can be *pro* regardless of agreement morphology. However, my

c.[PRO$_{i/j}$ Ankara-ya git-me-den önce] Umut$_i$ Allah'tan Emel$_j$ -i yakala-dı.

Ankara-Dat go-Inf-Abl before Umut-Nom Thank God Emel-Acc get hold of-Pst-3S

"Umut got hold of Emel before he went to Ankara/

Umut got hold of Emel before she went to Ankara"

As we can see in the examples above, scrambling the object NP sentence initially in (12a) does not affect the co-indexation possibilities. On the other hand, starting the sentence with the adjunct clause affects the co-indexation possibilities in (12b) yielding a tendency to interpret the controller of PRO as the subject "Umut" rather than the object "Emel." However, as we can see in (12c), when a different verb is chosen as the matrix predicate retaining the same order in (12b), we get the same co-indexation possibilities that we observe in (12a) where either "Umut" or "Emel" can be understood as the controller of PRO. These examples illustrate that PRO in adjunct clauses (9) through (12) is largely affected by the semantics of the predicate and discourse factors.

Please also note that it is not possible to explain the control structures (9) through (12) through the syntactic mechanism Agree. As we saw in Chapter 4, Agree relation holds between a functional head (T or v) and the PRO or the T-Agr head of the control clause. Note that in this mechanism T and v are both in the higher positions that the control clause. Given that temporal adjunct clauses must adjoin to TP along the lines of Cinque (1999), they would be only within the domain of the T head, which bears the phi-features of the subject. This would allow subject control. However, as v head bearing the phi-features of the object would be in a lower position, object control would

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informants and I do not agree with Öztürk. We assume that this interpretational difference might be due to a dialectical variation.

not possible. This implies that it is not possible to account for these structures syntactically. Then, the question is: how can we account for the empty category and the optionality of the antecedents of PRO in this kind of temporal adjunct clauses?

We argue that the control relation in temporal adjunct clauses like the ones above can be described as logophoric control. Following Reinhart & Reuland (1993), Landau describes logophors as reflexive elements, which are licensed by discourse factors such as focus, perspective and center of communication since they fail to be licensed syntactically. In the sentences above, as we discussed, no syntactic licensing takes place and the choice of the controller is defined by discourse factors. Therefore, we would like to argue that empty categories in these temporal adjunct clauses act like logophors as defined by Reinhart& Reuland (1993), which are not licensed by syntax but by discourse factors such as center of communication. In this respect, in (12b), where the adjunct clause occupies a sentence initial position, the tendency to interpret PRO as coindexed with the subject might also be related to taking the subject as the center of communication[17] given the lack of a preceding discourse.

We should note that Landau (1999) sees the notion logophor mainly as an attribute of LD control, in which the controller and the infinitive are not clause mates. However, Landau (1999) uses the notion of LD to describe control across embedded clauses. The examples we have seen in (9) through (12), on the other hand, are adjunct clauses, which are not merged in argument positions. Let us consider the following sentence to clarify this point:

[17] This is a tentative proposal as maxims of how center of communication is determined in Turkish should be investigated. We will leave this topic for future research since it is beyond the scope of this thesis.

(13)[PRO$_i$ storming out of the room that way after losing the game] convinced everyone that John$_i$ is very immature.

(Landau, 1999:47)

In the above examples, (13) illustrates Long Distance control in English because the remote antecedent "John" in the embedded clause cannot syntactically act as the controller for PRO but can still be interpreted as the controller due to discourse factors. That is why Landau considers the PRO in (13) as a logophoric element.

(14) [pro$_i$ [PRO[18]$_i$ Oyun-u kaybet-tikten sonra] böyle öfkey-le oda-dan çık-ma-sı]
game-Acc lose-after like this rage-with room-Abl. go out-Nom-Poss.
herkes-e Kaya$_i$'nın olgunlaşmamış ol-duğ-u-nu göster-di
everybody- Acc. Kaya-Gen. immature to be-VN-Poss.-Dat. show-Pst-3S
"His storming out of the room that way after losing the game showed everyone that Kaya is immature."

Note that Long-Distance control structure given in (13) does not exist in Turkish. As we see in (14), which is the Turkish counterpart of sentence (13), what we are dealing with is not a PRO licensed through Long Distance control but a *pro* licensed via the 3rd person possessive marker on the embedded verb. Thus, unlike English, Turkish lacks Long Distance control structures with embedded clauses, which occupy argument positions.

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[18] In connection to our discussion on control in adjunct clauses, we assume that PRO in the adjunct clause in (14) is licensed by discourse factors.

Going back to the cases of temporal adjuncts clauses, we would like to propose that in parallel to the cases of Long Distance control in English where there is no syntactic licensing between PRO and its antecedent, in Turkish adjunct clauses, too, it is the pragmatic factors which determine the antecedent of PRO and therefore PRO is logophoric in these structures.

5.1.3 Arbitrary Control in Turkish

Landau (1999) describes Arbitrary Control as the type of control, which does not have an argumental controller. Landau argues that in this type of control PRO is bound by a generic operator. The following example illustrates such a case of control:

(15) It is fun [PRO_{arb} to study Syntax]

We can find similar examples of arbitrary control in Turkish, which are formed with the infinitival suffix-mAK:

(16) [PRO_{arb} Söz Dizim çalış-mak] zevklidir.
Syntax-Nom study-inf fun
"It is fun to study Syntax."

(17) Yarınki sınav için [PRO_{arb} çok çalış-mak lazım]
tomorrow exam for a lot study-inf necessary
"It is necessary to do study a lot for the exam tomorrow"

One property of the arbitrary control structures in Turkish is that they can be tensed. Consider the following example:

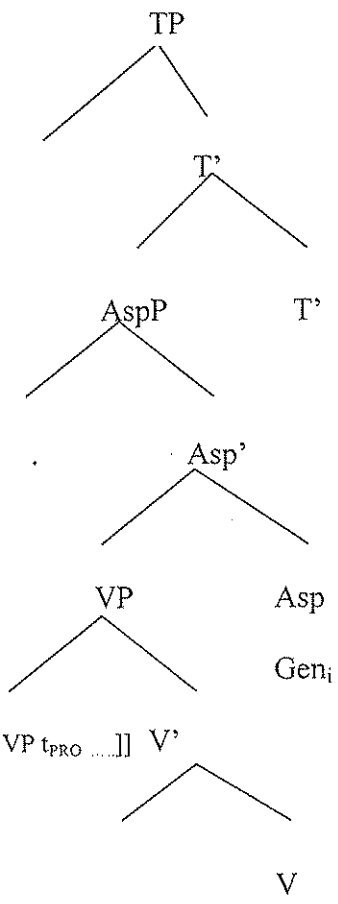
(18) [PRO_{arb} Bugün ağaç dik-mek], gelecek nesl-i kurtar-ır

Today tree plant-Inf next generation-Acc save-Aor-3S

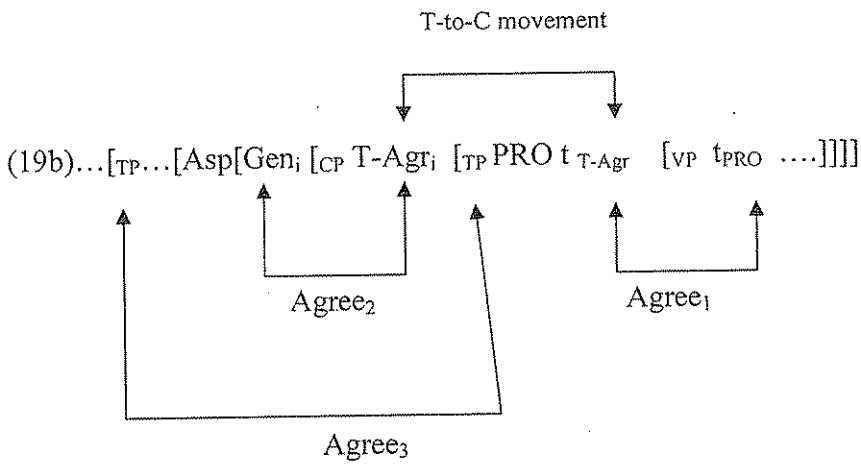
"To plant trees today will save the future generation"

As we can see in (18), arbitrary control structures can co-occur with conflicting time adverbs, indicating that arbitrary control in Turkish is [+ tensed]. If we stick with the proposal made by Pesetsky and Torrego (1999) that in tensed clauses there is obligatory T-to-C movement, we should assume that there is such a movement in (18), too. Consider the following schemas:[19]

(19a)



[19] Following Filip and Carlson (1997), we assume that the generic operator is at Aspect Phrase (AspP).



In the derivation in (19a) and (19b) above, which illustrate the derivation of (18), there is T to C in the inifinitival clause since it is tensed. Note that on a par with Landau's proposal for arbitrary control, we also assume that there is a Generic operator involved in the derivation of arbitrary control structures in Turkish, too. Landau specifically claims that in arbitrary control PRO is bound by the Generic operator. However, we depart from Landau at this point. What we argue is that generic operator does not directly bind PRO but is in relation with Agr, which obligatorily moves to C as the infinitival clause is [+ tensed]. If this is the case, then we expect the derivation of arbitrary control to be similar to partial control. This means that first T-Agr matches the features of PRO in Agree$_1$. Then, because the infinitival complement is tensed, its C head bears uninterpretable T-feature, which forces T-Agr to move to C. Then, the features of T-Agr and the controller, in this case the generic operator, are matched in Agree$_2$. At this point of derivation, the T-Agr gets bound by the Generic operator, which does not specify any person features. Since T-Agr is at the CP edge, according to Phase Impenetrability Condition, it is a closer candidate to be bound by the generic operator than PRO. Therefore, unlike Landau we propose that the arbitrary control reading is due

to Agr's being bound by the generic operator, but not due to the direct binding of PRO by that operator.

Independent from the Agree relations relevant for referential properties of PRO, there is another step in the derivation, namely $Agree_3$, through which the clause including PRO, that is, [$_{TP}$ PRO t $_{T\text{-}Agr}$ [VP t_{PRO} dikmek] agrees with T-matrix to become the subject. Please note that because arbitrary clause [$_{TP}$ PRO t $_{T\text{-}Agr}$ [VP t_{PRO} dikmek] is the matrix subject, we can assume that it moves into [Spec, TP] overtly and then reconstructs at LF licensing NOC reading so that PRO can be c-commanded by the generic operator. As an alternative, we can suggest that it gets into an Agree relation with the matrix TP in situ along the lines of Öztürk (2005). What is important in this derivation is that in either case, we assume that T-Agr, (not PRO), is bound by the Generic operator.

In Turkish, structures as the following support the claim that T-Agr is bound by the Generic operator:

(20) a. [ec_{arb} Bu hava-da yüz-me-si] güzeldir

This weather swim-Inf-Poss3S nice

"It is nice to swim in this weather"

b. [ec_{arb} Yalan söyle-me-si] kolaydır

Lie say-Inf-Poss3S easy

"It is easy to lie"

Sentences in (20) have an arbitrary reading. What is interesting in these sentences is that the embedded verb bears 3rd person agreement marker supporting our argument that in arbitrary control, Gen operator is in relation with Agr at C.

Please note that in the sentence above, we have represented empty category as "*ec*" because there are two possibilities. We have said earlier that *pro* co-occurs with agreement markers. Therefore, we can claim that the empty category here is *pro* since the embedded verb bears 3rd person possessive agreement marker. Then, in parallel to the case of –mA constructions, we can claim that we are dealing with an anaphoric Agr, which in this case gets bound by the Gen operator, rather than a matrix argument.

Alternatively we can suggest that the empty category in (20) is PRO instead of *pro*. However as we have seen in the discussion of –mA structures in section 5.1.1, analyzing the empty category as PRO in the presence of agreement would challenge the commonly accepted view that there is a direct correlation between the agreement morphology and *pro*. As we noted earlier in the discussion of –mA structures, we leave this topic for future investigation.

5.1.4 Control into Subject Clauses

In this section we will focus on cases of control into subject clauses in Turkish. Let us consider the following sentences:

(21) [$PRO_{i/*arb}$ Haberi duy-mak] Ali_i-yi üz-dü

news-Acc hear-inf Ali-Acc upset-Pst 3S

"To hear the news upset Ali"

In (21) we see that the controller of PRO can only be "Ali," which illustrates a case of OC. Note that it is not possible to have an arbitrary or NOC reading for this sentence. Now consider (22):

(22) [$PRO_{i/arb}$ Oda-da sigara iç-mek] Ali_i-ye zarar ver-di.
room-Loc cigarette drink-Inf Ali-Dat harm give-Pst 3S
"To smoke in the room harmed Ali"

Here, the sentence is grammatical both under OC and NOC readings. Assuming that in both of the sentences, the infinitival clauses are in the subject position and are generated in the same position, the question is how we can account for this asymmetry between the two sentences in terms of OC and NOC reading.

In order to answer this question, we need to look at the semantic difference between the predicates *üz-* (upset) and *zarar ver-* (harm) in (21) and (22) respectively. Of these predicates, the former is a psychological verb whereas the latter is a non-psychological one. Landau argues that the semantics of predicates might affect OC vs. NOC reading. Psychological predicates license OC as we can see in (21) while non-psychological predicates can license either OC or NOC as we can see in (22). This difference in interpretation is due to different derivations that (21) and (22) have. Before looking at the derivation of these structures, let us review the assumptions that underline OC vs. NOC distinction in Landau's account as listed in (23):

a) OC generalization: If, at LF, S occupies a complement/specifier position in the VP-shell of Pred, then the controller DP (or its trace) also occupies a complement/specifier position in that VP-shell.

b) Extraposition: VP-internal clauses must be peripheral at PF

c) Chain Interpretation: Any link in a chain may be the LF-visible link

d) Argument Projection: EXPERIENCER is generated above CAUSER
CAUSER is generated above GOAL/PATIENT/THEME

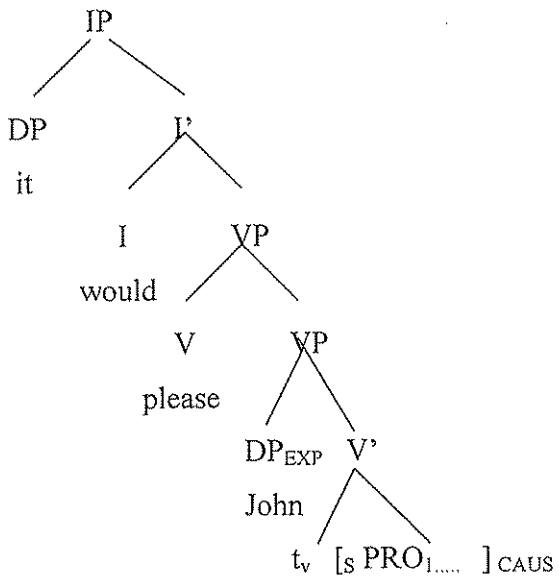
Let us elaborate on these assumptions. The first assumption, OC Generalization in (23a) determines the domain within which controller can be found. According to Landau, this domain is the complement/specifier position in the VP-shell of the predicate. Landau notes that this generalization does not make a claim with respect to the choice of the controller adding that the choice of the controller is semantic or pragmatic.

According to Landau, the second assumption in the list, (23b), corresponds to the cross linguistic observation that embedded clauses must be peripheral and they seldom intervene between a predicate and other internal arguments. However, as we will see later on, Turkish does not really comply with this assumption.

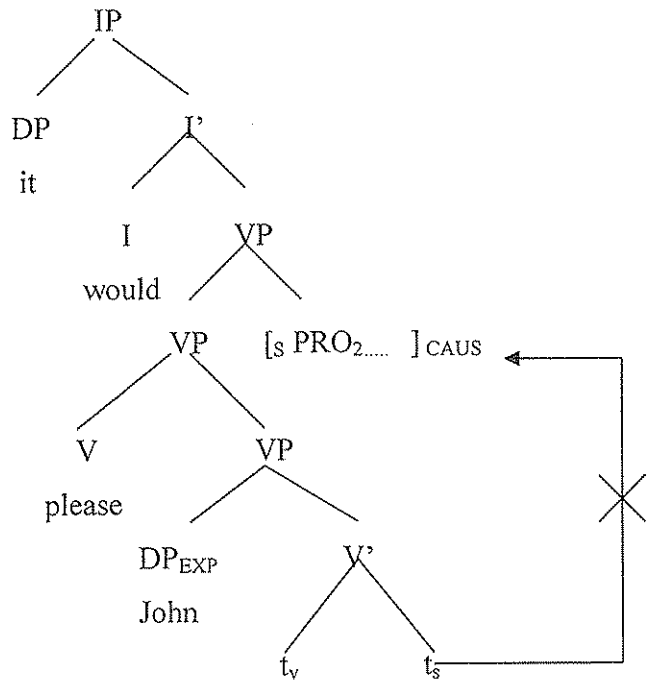
Regarding the third assumption (23c), Landau assumes that traces of movement are full copies of the moved element. He argues that any link in the chain be interpreted along the lines of Fox (1999) and Bobaljik (1999) (cited in Landau 1999).

As for the assumption in (23d), Landau notes that the CAUSER argument may be either DP, IP, or CP. He also adds that no predicate selects EXPERIENCER, CAUSER and GOAL/PATIENT at the same time. On the basis of these assumptions, Landau gives the derivations in (24) and (25):

(24a) It would please John$_i$ [PRO$_i$ to speak his mind]



(24b)



* It would please John$_1$ [$_S$ PRO$_{2.....}$]

(Landau, 1999:118)

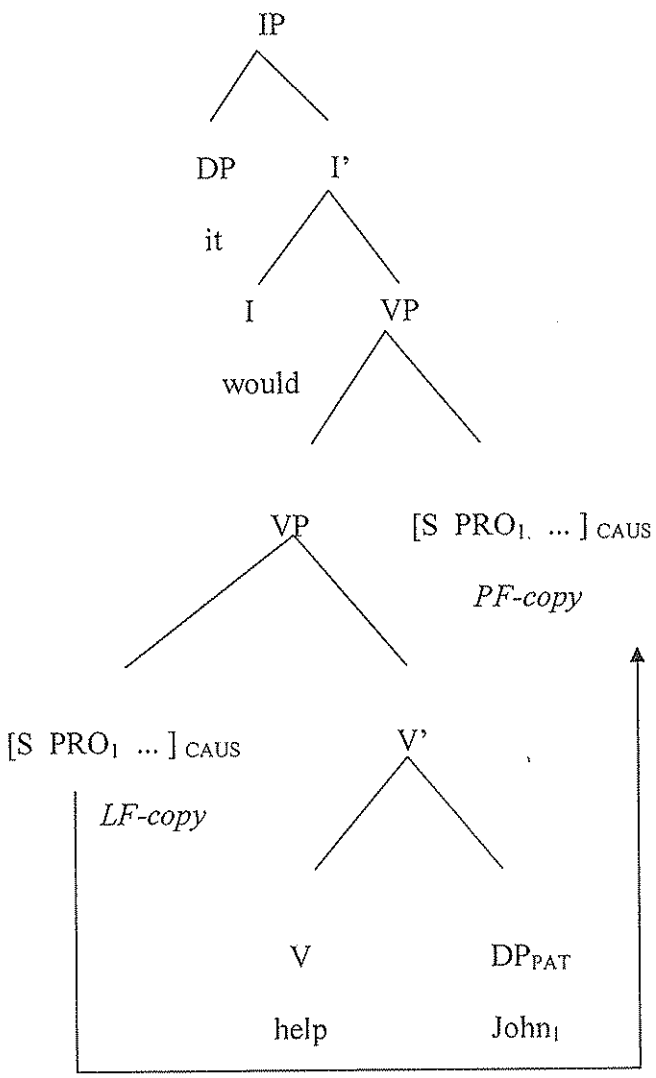
In (24a), the infinitival clause occupies a position in the VP-shell of the predicate, which complies with OC Generalization given above. Therefore what we have in (24a) is an OC construction.

The ungrammaticality of (24b) is because of the fact that an extraposition such as in the case of (24b) is not required according to the extraposition assumption given in (23d) since S is already peripheral. The ungrammaticality of (24b) is also due to the fact that in (24b), CAUSER is generated above the EXPERIENCER "John," which violates (23d).

What these derivations imply is that with a psychological verb like "to please," extraposition is not necessary. That is why, we get only OC interpretation and not NOC interpretation with psychological predicates as we can see in (24b).

After looking at the derivation of a structure with a psychological predicate, now let us look at the derivation of a construction with a non-psychological predicate like "help":

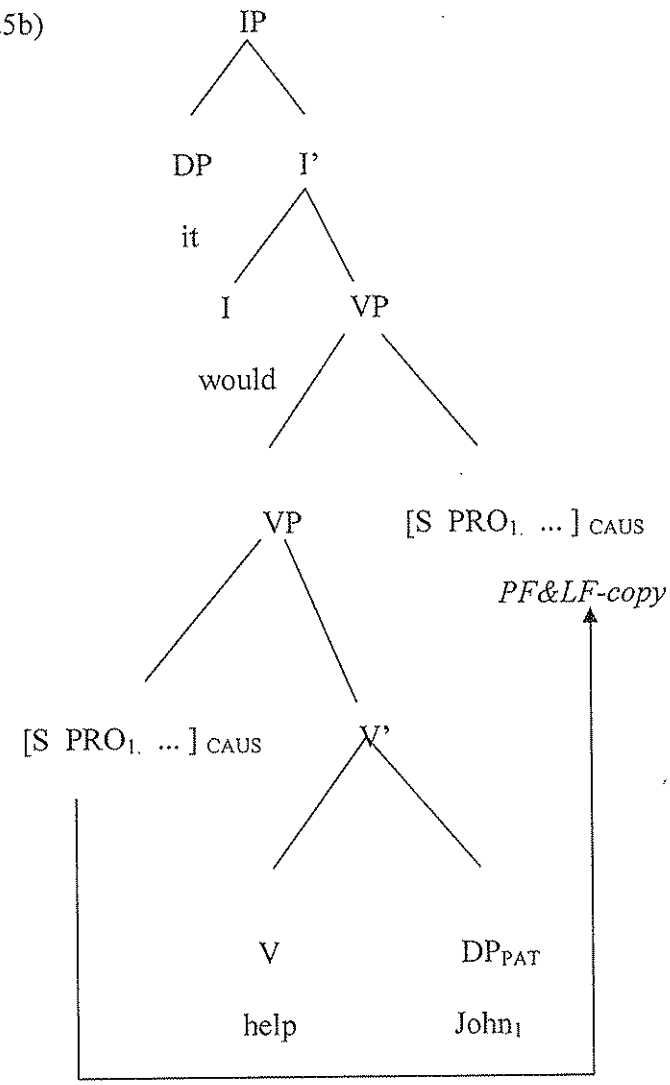
(25a) It would help John$_i$ [PRO$_i$ to collect donations]



It would help John$_i$ [$_S$ PRO$_i$.....]

OC: [S PRO$_i$ ...] CAUS interpreted in situ

(25b)



It would help John$_1$ [$_S$ PRO$_{1/2}$ ....] $_{CAUS}$

NOC: [S PRO$_1$...] $_{CAUS}$ interpreted extraposed

(Landau, 1999:119)

In (25a), which is formed with a non-psychological predicate "help," [$_S$ PRO$_{1/2}$ ....] $_{CAUS}$ is generated above the direct object because the CAUSER should be generated above GOAL in line with (23d). For this reason, embedded clause is not peripheral to VP.

Since VP-internal clauses must be peripheral at PF, extraposition is forced. This extraposition creates a chain and any link of this chain can be interpreted in line with (23c). When the base position of the link is interpreted, we get (25a), in which "[S PRO_1...] $_{CAUS}$" is VP internal at LF meaning that the direct object is an obligatory controller according the OC Generalization in (23a).

On the other hand, when the extraposed position, in other words, the higher copy is interpreted, we get (25b) or in other words NOC since "[S PRO_1...] $_{CAUS}$" is VP-External at LF failing to satisfy the OC Generalization. This derivation indicates that with non-psychological predicates like "help," either the lower or the higher copy can be interpreted thus both OC and NOC readings are possible.

Therefore, looking at derivations in (24) and (25), we can say that with psychological predicates like "please" and "upset" only the VP internal base position is available for interpretation licensing the OC reading but not the NOC reading. On the other hand, with non-psychological predicates such as "help," either the lower or the higher copy can be interpreted licensing both OC and NOC readings. Keeping this difference in mind, let us show the derivations of Turkish sentences in (21) and (22) as (26) and (27) respectively:

(26) $[_{TP}$ $PRO_{i/*arb}$ Haber-i duymak $[_{VP}$Ali'yi t üzdü] → OC OK - NOC not OK

(27) $[_{TP}$ $PRO_{i/arb}$ Odada sigara içmek $[_{VP}$Ali'ye t zarar verdi]→ both OC&NOC OK

The representations above can be interpreted as a kind of extraposition because both in (26) and (27) there is movement out of the VP domain into [Spec, TP], since the infinitival clause is interpreted as the subject of the main clause. Alternatively, considering the proposal by Öztürk (2004 & 2005), who argues that in Turkish movement into [Spec, TP] is not driven by case or EPP reasons so that [Spec, TP] is not a position related to establishing argumenthood, we can also argue that movement into [Spec, TP] is indeed a case of extraposition. However, as we noted earlier, in this study we assume the canonical phrase structure for Turkish and therefore we will not go into the details of this alternative option.

After stating that both (26) and (27) are instances of extraposition into [Spec, TP], let us focus on the implications of these representations. In the case of (26), which is formed with the psychological verb *üz-* (upset), what we observe is that only the lower copy can be interpreted accounting for the unavailability of NOC reading.

In (27), on the other hand, what we have is a structure with a non-psychological predicate *zarar ver-* (harm). Thus, (27) allows both the OC and the NOC readings just like its English counterpart in (25), which is formed with the non-psychological predicate "help." This shows that in Turkish, too, if the sentence is formed with a non-psychological predicate, either the lower or the higher copy can be interpreted.

Therefore, we can explain control into subject clauses following Landau's proposal for OC vs. NOC distinction. However, we should note that Landau's account is not without problems. Landau assumes that VP internal clauses must be peripheral at PF. According to Landau, this assumption corresponds to "the cross-linguistic observation that embedded clauses are typically peripheral to the VP and seldom intervene between a predicate and other internal arguments" (Landau, 1999:117)

One obvious problem with this assumption is that VP internal object clauses in Turkish tend to be adjacent to the verb whereas VP-internal subject clauses tend to extrapose. The following sentences illustrate this tendency:

(28) a. İpek [Meral'in ev-de ol-duğ-u-nu] söyle-di.

İpek-Nom Meral-Gen house-Loc to be-Nom-Poss-3S-Acc tell-Pst-3S

"İpek said that Meral was at home"

b. [Meral'in ev-de ol-duğ-u-nu] İpek söyle-di. → MARKED

Meral-Gen house-Loc to be-Nom-3S poss-Acc İpek-Nom tell-Pst-3S

"The one, who said that Meral was at home, was İpek"

(29) a. İpek Meral_i'a [pro_i git-me-si-ni] söyle-di

İpek-Nom Meral-Dat go-inf-3S-Acc say-Pst-3S

"İpek told Meral to go."

b. Meral'a İpek [pro_i git-me-si-ni] söyle-di. → MARKED

Meral-Dat İpek-Nom go-Inf-3S-Acc say-Pst-3S

"The one, who told Meral to go, was İpek"

(30) a. [Haberi duy-mak] Ali'yi üz-dü

News-acc hear-Inf Ali-Acc upset-Pst 3S

"To hear the news upset Ali"

b. Ali'yi [haberi duy-mak] üz-dü. → MARKED

Ali-Acc News-acc hear-inf.upset-Pst 3S

"What upset Ali was to hear the news"

As we can see in (28b) and (29b), in which the VP-internal object is peripheral at PF is more marked than the one, in (28a) and (29a), in which the VP-internal object is adjacent to the predicate.

This situation is just the other way around in the case of VP-external subjects. As we can see in (30), when the VP-internal subject is not extraposed as in (30b) the sentence is more marked than the one that is extraposed in (30a).

In short, Landau's proposal for the derivation of OC and NOC in the case of psychological and non-psychological predicates, by and large, can account for Turkish facts. Landau's suggestion that the semantics of the predicate might affect OC vs. NOC reading can be extended to Turkish because as we have seen above both in English and Turkish, psychological predicates license only the OC reading while non-psychological predicates assign both OC and NOC readings.

However, Landau's assumption regarding extraposition in (23d) does not extend to Turkish because in Turkish, contrary to what Landau argues, VP-internal objects tend to be adjacent to the verb since the word order in Turkish is SOV. This indicates that extraposition as formulated by Landau (1999) cannot be taken to be a cross-linguistic fact.

5.1.5 Control into Purpose Clauses

In this section, we will take a look at control into purpose clauses, which Landau does not include in his typology of control. Consider the following sentence:

(31) Umut$_i$ Emel'i [PRO$_i$ üz-mek] için ara-dı

Umut-Nom Emel-Acc upset-Inf for call-Pst-3S

"Umut called Emel to upset her"

In (31), PRO's antecedent can only be "Umut" behaving as if it is an OC construction. Assuming that purpose clauses are generated VP-internally, we can account for sentence (31) under Landau's OC Generalization by saying that the infinitival clause in (31) occupies a position in the VP-shell of the predicate complying with OC Generalization and therefore the lower copy is interpreted licensing OC Reading.

However, OC reading of (31) is problematic for Landau's account because (31) is a purpose clause, which is taken to be an adjunct. According to Landau's account, adjuncts are islands that license NOC and therefore purpose clause such as (31), which are known to be adjuncts, are not expected to license OC.

Nevertheless, (31) does not constitute an island in Turkish as the following example illustrates:

(32) A. Umut Emel'i ne için ara-dı?

Umut-Nom Emel-Acc what for call-Pst-3S

"Why did Umut call Emel?"

B. $Umut_i$ Emel'i [PRO_i üzmek] için ara-dı

Umut-Nom Emel-Acc see-Inf for call-Pst-3S

"Umut called Emel to upset her"

As we can see in (32A), extraction out of the embedded purpose clause is possible showing that purpose clause in (31) is not an island. Yet, (31) is a case of OC. This contradicts with Landau's account, which assumes that adjuncts can only license NOC.

Another problematic structure for Landau's account is the purpose clauses formed with –mA structure. Consider the following sentence:

(33) Umut $Emel_i$'i [pro_i hata yap-ma-ması için] uyar-dı

Umut-Nom Emel-Acc mistake make-not to for warn-Pst-3S

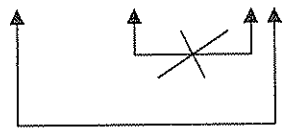
"Umut warned Emel so that she won't make mistakes."

Within the OC generalization that Landau proposes, it is not clear where the purpose clause in (33) is generated. Since (33) is an object control case, it must be generated lower than the object meaning that the purpose clause in (33) and the one in (31) are generated in different positions.

This different positioning of purpose clauses challenges Landau's account because according to Cinque (1999) among others, adjuncts are merged into specific positions. Then, Landau's account should explain why subject and object control cases of purpose clauses have different positions in Turkish in (31) and (33).

Another problem in (31) and (33) is how to determine the choice of the controller. In (33), we can argue that the controller is "Emel" because it is the closer candidate in line with MLC (Minimal Link Condition) but then why MLC fails in (31), where only the remote antecedent "Umut" is the controller as we can see below:

(34) Umut$_i$ Emel'i [PRO$_i$ üz-mek] için ara-dı.



Umut-Nom Emel-Acc upset-Inf for call-Pst-3S

"Umut called Emel to upset her"

We might propose a number of hypothetical solutions to account for why MLC fails in (34). First, we can argue that the choice of controller is determined in (33) regardless of MLC because [–mA+ için] structures as opposed to [–mAK+ için] structures, are marked with non-subject oriented overt morphology on the verb. That is, the presence of the third person singular agreement marker obligatorily denotes object control, whereas the absence of such morphology denotes subject control.

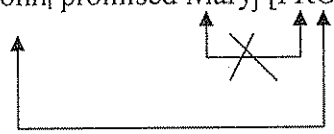
Alternatively, we can argue that it is MLC which takes care of (33) but the type of purpose clauses we have in (34) behaves like *promise*-type of verbs, which form an exception for MLC along the lines of Boeckx&Hornstein (2004), who argue that

promise type of verbs are marked and exceptional and the late acquisition of this group of verbs attest to this fact (Courtenay, 1998). This explains why in the following sentences MLC fails:

(35) a. John$_i$ promised Mary$_j$ [PRO$_{i/*j}$ to go to England]

(Boeckx&Hornstein, 2004)

b. John$_i$ promised Mary$_j$ [PRO$_{i/*j}$ to go to England]



In the sentence above, according to MLC, the closer possible antecedent "Mary" should control PRO. However, in promise type of verbs, as we can see in (35a), the remote antecedent "John" controls PRO violating MLC as (35b) illustrates.

An argument supporting the claim, which suggests that purpose clauses are like *promise*-type verbs, comes from the fact that it is possible to paraphrase "promise" structures as purpose clauses in Turkish as we can see below:

(36) a. Sevgi Emel'e erken gel-me-ye söz ver-di

Sevgi-Nom Emel-Dat early come-Inf -Dat promise-give-Pst-3S

"Sevgi promised Emel to come early"

b. Sevgi Emel'e erken gel-mek için söz ver-di

Sevgi-Nom Emel-Dat early come-Inf for promise-give-Pst-3S

"Sevgi promised Emel that she would come early"

As we can see, the sentence in (36a), which is an object control structure formed with the verb *promise* can be paraphrased with *için* (for) as in (36b). This indicates that if "promise" is accepted to be an exceptional case of control, purpose clauses, which are direct paraphrases of "promise" structures, can also be perceived as exceptions.

Another piece of evidence supporting this claim comes from the double-case restriction in Turkish. As noticed in the literature on Turkish case morphology by Zimmer (1976), Taylan (1979) and Göksel (1993), this restriction states that a piece of case morphology cannot be realized twice on arguments. In line with this view, let us reanalyze (36a): In (36a), both "Emel" and the embedded verb are assigned dative case, which violates the double case restriction. However, if this sentence is paraphrased as in (36b), this violation can be avoided. This implies that the infinitival clause in (36a) is not an argument but an adjunct. In other words, since the dative on the infinitival clause is marking an adjunct, but not an argument, it can appear twice. This situation is similar to the possibility of multiple occurrence of locative case on adjuncts in Turkish:

(37) Ali kitab-ı oda-sı-n-da masa-da oku-du.
Ali-Nom book-Acc room-Poss –Dat table-Dat read-Pst-3S
"Ali read the book at his table in his room."

Thus, examples above indicate that there is a correlation between purpose clauses and *promise* type verbs, which might account for the markedness of these two structures. However, we should note that in this thesis, we will not be taking a certain stand among the possible options that we have presented so far regarding the "markedness" of promise-type verbs or control into purpose clauses leaving some room

for the argument that the choice of controller might be determined by the semantics of predicate or discourse factors as claimed by Culicover &Jackendoff (2001).

5.1.5 Obligatory Control under non-C-command

Earlier in Chapter 3 we noted that neither in English nor in Turkish controllers need to c-command PRO in OC unlike what was claimed within GB framework and as well as in Hornstein's MTC. For convenience, let us repeat the relevant examples in English and Turkish below:

(38) a. Yesterday, it spoiled Mary's$_i$ mood [PRO$_{i/*arb}$ to listen to the news].

(Landau, 1999: 43)

b. Dün [PRO$_{i/*arb}$ haberler-i duymak] Emel$_i$'in can-ı-nı sık-tı.

Yesterday news-Acc hear-Inf Emel-Gen mood-Poss-Acc spoil-Pst-3S

"Yesterday it spoiled Emel's mood to listen to the news."

As we can see in sentences in (38a) and (38b), "Mary" and "Emel" respectively are embedded inside the matrix object and fails to c-command PRO. However, in both of these sentences, PRO is obligatorily controlled by "Mary" and "Emel." The question is how to account for this kind of exceptional OC cases.

We can argue that in OC structures, PRO does not need to have a local c-commanding antecedent. However, we still need to explain why sentences in (38) are exceptional cases both within GB and the Minimalist framework.

In order to explain the peculiar examples of non c-commanding control such as (38), Landau (1999) formulates a logophoric extension rule as the following[20]:

(39)

For the purpose of control, a logophoric extension [X's NP] is non-distinct from X:

$[X's_1\ NP] \rightarrow [X's\ NP]_1$

(Landau, 1999:128)

According to Landau, what (39) implies is that an inalienably possessed noun, which is referentially dependent on its possessor, inherits its index. Inalienably possessed nouns include the followings:

(40) Figure, hair, hand, confidence, career, status, performance, development, image, reputation, behavior etc.

Now let us give an example to clarify the concept "inalienably possessed noun":

(41) a. It would help $Bill_i$'s confidence [PRO_i to plan his itinerary in advance]

b. * It would help $Bill_i$'s car [PRO_i to plan his itinerary in advance]

(Landau, 1999:128]

[20] As noted by Landau (1999), non-local c-commanding control was also noticed by Chomsky, who says, "while PRO may have a non c-commanding antecedent, the latter may not be contained within an NP that is a possible controller," Chomsky (1981:77)

As we can see in the sentences above, with an "inalienably possessed noun" such as "confidence," (41a) is grammatical because it is referentially dependent on "Bill" and does not block the co-indexation of PRO with "Bill."

On the other hand, in (41b), "car" is not an inalienably possessed noun as we can see in the list (40). Also from our world knowledge, we know that a "car" is not an alienable attribute such as "confidence," which reflects the individuality of the controller and is referentially dependent on an antecedent. That is why, contrary to "confidence," "car" in (41b) blocks the coindexing of PRO with "Bill" rendering the sentence ungrammatical.

Now let us take a look at some examples from Turkish, which also comply with the formulation in (39):

(42)

a. [PRO$_i$ Yolculuk için önceden plan yap-mak] Kaya$_i$'nın güven-in-i olumlu etkile-di

travel for before plan-Inf Kaya-Gen confidence-Poss-Acc help-Pst-3S

"It would help Kaya's confidence to plan his itinerary in advance"

b. *[PRO$_i$ Yolculuk için önceden plan yap-mak] Kaya$_i$'nın araba-sı-nı olumlu etkile-di

travel for before plan-Inf Kaya-Gen car-Poss- Acc help-Pst-3S

"It would help Kaya's car to plan his itinerary in advance"

(43) a. [PRO Sık sık şampuan değiştir-mek] Kaya'nın saçlar-ı-nı dök-tü

frequently shampoo change Kaya-Gen hair-Poss-Acc fall-Pst-3S

"To change shampoo frequently caused Kaya to lose hair"

b. *[PRO Sık sık şampuan değiştir-mek] Kaya'nın saç kurutma makine-si-ni boz-du

frequently shampoo change Kaya-Gen hairdryer-Poss-Acc break-Pst-3S

"To change shampoo frequently caused Kaya's hair dryer to break"

As we can see in (42a) and (43a), similar to the English sentence in (41a), in the presence of inalienably possessed nouns such as "confidence" and "hair," the antecedent "Kaya" can control even though it does not c-command PRO. This is due to the fact that being inherently dependent on "Kaya," the inalienable nouns "confidence" and "hair" do not block co-indexation of "Kaya" with PRO.

In (42b) and (43b), on the other hand, the coindexation of PRO with "Kaya" is blocked by the nouns "car," and "hair dryer" respectively since they are not inalienably possessed nouns as we can see in the list (40).

Thus, now we can account for the exceptional cases such as (38a) and (38b), which allow for OC readings although the controller does not c-command PRO. In these sentences we have inalienable nouns such as "mood," which are referentially dependent on the controller. That is why they do not block co-indexation of PRO with the controller "Mary" and "Emel" respectively.

5.2 Conclusion

In this chapter, we have described the cases in Turkish that exhibit NOC such as temporal adjunct clauses and arbitrary control cases along with the exceptional OC constructions such as –mA structures, control into subject clauses, control into purpose clauses and OC in the absence of a c-commanding antecedent.

The aim of this chapter was to complete the general typology of control we started in the previous chapter by taking Landau's (1999) typology as a starting point. The reason for taking Landau's typology as a starting point was two-folds: (1) in chapter 3, we have seen that control in Turkish cannot be treated as an instance of movement and that we need to preserve PRO in order to analyze Turkish control structures. Taking into consideration that Landau's typology assumes non-NP movement of control and acknowledges the existence of PRO, this typology provides us with a proper basis for Turkish control structures. (2) Landau's typology presents new types of control structures such as EC and PC control, which are all instantiated in Turkish.

Although we have taken Landau's typology as our starting point, we made significant modifications in describing the typology of control in Turkish. These modifications include rearranging groups of verbs under EC and PC class (after elimination of propositional and interrogative verbs, and of some factive verbs due to the rich agreement morphology in Turkish), exclusion of LD control from the subtypes of Non-obligatory Control and the addition of logophoric control, as well as the addition of exceptional cases of control to the Turkish typology. After these modifications, we propose the following typology of control for Turkish:

Table 3: Control in Turkish

Control in Turkish				
Obligatory Control			Non-Obligatory Control	
Exhaustive Control ▪Distribution: Tenseless infinitives ▪Mechanism: Agree ▪ EC verbs: -Implicatives -Aspectual -Modal (limited)	Partial Control ▪Distribution: Tensed Infinitives ▪Mechanism: Agree ▪PC verbs: - Factives (limited) - Desideratives	Exceptional Cases of OC: ▪-mA structures ▪ Control into subject clauses ▪ Control into purpose clauses ▪Control under non c-command	Logophoric Control ▪Distribution: Temporal adjunct clauses such as -mAdAn önce/sonra (before/after doing smth), -DIktAn önce/sonra (before/after having done something), -(y)InCA (when) ▪Mechanism: PRO logophoric	Arbitrary Control ▪Distribution: -Arbitrary control with -mAK/-mA structures ▪Mechanism: T-Agr bound by a generic operator

CHAPTER 6

CONCLUSION

This thesis examined Turkish control structures with respect to two basic questions: a) Can Hornstein's MTC (1999), which minimizes the distinction between control and raising structures by analyzing the former as a kind of NP movement, be applied to Turkish? b) If not, how can we explain the nature of control structures and different types of control in Turkish?

In order to investigate the answer to the first question, in Chapter 2, we looked at the traditional analysis of raising structures, which forms the origins of the distinction between raising and control structures. We saw that within GB, starting from the earlier works in generative grammar such as Rosenbaum (1967) through some more recent works such as Lasnik and Saito's (1991), raising structures are taken to involve an NP movement whereas control structures have been analyzed through the null element PRO.

Then, in Chapter 3, we presented Hornstein's MTC in order to lay the groundwork for its application to Turkish. In order to investigate whether MTC can be applied to Turkish, we introduced data from split antecedents in Turkish control structures, co-indexation possibilities in adjunct clauses, problems for MTC created by the availability of partial and implicit control and obligatory control under non c-command, all of which provided us with counter evidence, suggesting that MTC cannot be applied to Turkish. We also presented evidence from Turkish raising structures, showing that NP movement is not obligatory in Turkish, which renders the applicability of an NP-movement based account of control such as MTC to Turkish highly unlikely. This implies that it is dubious that MTC can be applicable cross-linguistically since the

existence of obligatory NP-movement is a controversial issue not only in Turkish, but in other languages such as Japanese (and, as a matter of fact, also in English).

After establishing the fact that MTC in its current form cannot be applied to Turkish and that we need to have PRO in order to explain Turkish control structures, in Chapter 4, we presented Landau's typology of control (1999), which introduces new types of control such as EC and PC, explaining the difference between these structures with Agree along the lines of Landau (1999). Then, we described OC and its two subtypes i.e. EC and PC in Turkish along with a representative classification of EC and PC verbs within Landau's framework, which provided part of the answer for our second question regarding the nature and the typology of control in OC.

Then, in order to obtain a complete answer to our second question with regard to the typology of control in Turkish, we devoted chapter 5 to NOC and exceptional types of OC. In this chapter, we noted that Turkish does not exhibit LD control, which is defined in Landau's typology as a logophor. However, we showed that Turkish exhibits logophoric control, which can be found in temporal adjunct clauses. We also looked into arbitrary control in Turkish, stressing that in arbitrary control, AGR (and not PRO) is bound by Generic Operator, unlike what Landau claims. We also analyzed some exceptional cases, such as control in –mA structures and purpose clauses, which are left out in most of the studies on control structures.

As a final note, our observations in this thesis imply that control is part of linguistics, which should be analyzed at syntax-semantics interface. As we have seen in the analysis of psychological vs. non-psychological verbs, the semantics of the control predicate affects the OC vs. NOC interpretation in control structures. We also saw in the discussion of logophoric control that the choice of controller might be affected by the

pragmatic factors such as discourse and the center of communication. Therefore, we believe that along with the premises of syntax, semantics of predicates and pragmatic factors also should be taken into account in the analysis of control structures, which implies that control is actually an interface phenomenon.

The aim of this thesis was to give a general typology of control for Turkish since a full treatment of a complex issue like control is beyond its scope. However, we believe that this study might pave the way for further research on Turkish control structures, and indirectly contribute to the cross-linguistic understanding of the control phenomenon in general.

REFERENCES

Aissen, J. (1974) Verb raising. *Linguistic Inquiry*. 5:325-366

Aygen, G. (2002a) "Is there ECM Raising in Turkish?" Harvard University Manuscript

Aygen, G. (2002b) "Epistemic Modality/Mood as *Finiteness* and Clausal *Dependency* marked with Subject Case and Agreement" Harvard University Manuscript

Boeckx, C. & N. Hornstein. (2003). Reply to "Control is not movement" *Linguistic Inquiry*. 34:269-281

Boeckx, C. & N. Hornstein. (2004). Reply to "Movement under Control" *Linguistic Inquiry*. 35:431-452

Borer, H. (1989) Anaphoric AGR. In Jaeggli and K.J. Safir (eds.), The Null Subject Parameter, Kluwer Academic Publishers, 69-109.

Bresnan, J. (1982) Control and complementation. *Linguistic Inquiry*, 13, 3–40.

Bruening, B. (2001a) Raising to Object and Proper Movement. Draft submitted to the Linguistic Inquiry.

Chomsky, N. (1981) *Lectures on Government and Binding*. Foris: Dordrecht

_____ N. (1986) *Knowledge of Language: its nature, origin and use*. Prageger, N.Y.

_____ (1995) *The Minimalist Program*, Cambridge, Mass.: MIT Press.

_____ (1998) Minimalist Issues: The Framework. *MIT Occasional Papers in Linguistics*. Vol. 15, Cambridge, MA. MITWPL.

_____ (2001) Beyond Explanatory Adequacy. *MIT Occasional Papers in Linguistics 20,* MITWPL.

Chomsky, N. & H. Lasnik (1993). "The Theory of Principles and Parameters," in N. Chomsky's 1995, The Minimalist Program, Cambridge, Mass.: MIT Press.

Cinque, G. (1999*) Adverbs and Functional Heads : a Cross-linguistic Perspective*, New-York: Oxford University Press

Courtenay, K. (1998) Summary: Subject control verb promise in English. http://linguist.org/issues /9/9-651.html.

Culicover, P. &R. Jackendoff. (2001) Control is not movement. *Linguistic Inquiry.* 32:493-512.

Davies, William D. & Stanley Dubinsky (2004). *The Grammar of Raising and Control: A course in Syntactic Argumentation.* MA: Blackwell

Epstein, S., & N. Hornstein, eds. (1999). *Working Minimalism.* M.I.T. Press: Cambridge, MA

Filip, H. and G. Carlson (1997) Sui Generis Genericity. *Penn Working Papers in Linguistics.* Volume 4, 1-20

George, L.M. and J. Kornfilt. (1981). "Finiteness and Boundness in Turkish," in Frank Henry (ed.), *Binding and Filtering*, MIT Press, Cambridge, pp. 105-127.

Göksel, A. (1993) *Levels of Representation and Argument Structure in Turkish.* PhD. Dissertation, SOAS. University of London.

Grinder, John T. (1970) "Super equi-NP deletion." In *Papers from the Sixth Regional Meeting*, Chicago Linguistic Society, 297–317.

Haegeman, L. (1994) *Introduction to Government & Binding Theory*, second edition. Oxford: Blackwell.

Hornstein, N. (1997). Control in GB and Minimalism. *Glot International*, 2(8). (reprinted in Chenk and R. Sybesma (eds.), *The first glot international state-of-article book* (2000). Berlin: Mouton de Gruyter.

_____ (1999) Movement and Control. *Linguistic Inquiry*, 30:69-96.

_____ (2001) *Move! A Minimalist Theory of Construal.* MA: Blackwell

Huang C.-T. J. (1984): On the Distribution and References of Empty Pronouns. *Linguistic Inquiry* 15, 531--574.

Jaeggli, O. (1980) Remarks on *to* Contraction. *Linguistic Inquiry*. 11:239-245

Kelepir, M. 2001. *Topics in Turkish Syntax: Clausal Structure and Scope*. Ph.D.Dissertation. MIT

Klima, E. (1964) "Negation in English". In J. Fodor and J. Katz (eds.) *The Structure of Language*, Prentice-Hall, Englewood Cliffs, NJ

Kornfilt, J. (1977) "A Note on Subject Raising in Turkish"; *Linguistic Inquiry*, Vol. 8, 736-742.

_____ (1984) *Case Marking, Agreement, and Empty Categories in Turkish.* Ph.D.: Harvard University

_____ (1994) On Some Infinitival Wh-Constructions in Turkish *Dilbilim Araştırmaları*. Hitit: Ankara

Kural, M. (1993) V-to-(I-to)-C in Turkish. UCLA Occasional Papers in Linguistics, Vol. 11 *Recent Papers in Syntax, Semantics and Computational Linguistics*. UCLA

Landau, I. (1999) *Elements of Control*. PhD. Dissertation, MIT, Cambridge.

_____ (2003) Movement Out of Control. *Linguistic Inquiry*, 34:471-498

Lasnik. Howard (1999) *Minimalist Analysis*. USA: Blackwell Publishers

Lasnik, H. and Mamoru, S. (1991) On the subject of infinitives. *Proceedings of the Chicago Linguistics Society* (CLS), 27, 324–343.

Lebaux. D. (1985). Locality and Anaphoric Binding. *The Linguistic Review*, 343-63.

Lightfoot, David W. (1976) Trace Theory and twice-moved NPs. *Linguistic Inquiry* 7:559-582.

Marantz, A. (1995) "A late note on Late Insertion" Y. Kim et al. (eds) *Explorations in Generative Grammar*, Seoul: Hankouk

Moore, John. (1998) "Turkish Copy Raising and A-Chain Locality" . *Natural Language and Linguistic Theory* 16: 149-189. Netherlands: Kluwer Academic Publishers

Özsoy, A.S. (1987) Null Subject Paramater and Turkish. In *Studies on Modern Turkish: Proceedings of the third Conference on Turkish Linguistics*. H.E. Boeschoten and L. Th. Verhoeven (eds.), 82-91. Tilburg University Press.

_____ (1999). *Türkçe*. (Turkish) İstanbul: Boğaziçi Üniversitesi Yayınları

_____ (2002) "On 'small' clauses, other 'bare' verbal complements and feature checking in Turkish" in *The Verb in Turkish.* Ed. Eser Erguvanlı Taylan. Philadelphia: John Benjamins Publishing Company.

Öztürk B. (1999) *Turkish as a non-pro-drop language.* Unpublished MA Thesis: Boğaziçi University

_____ (2001) Adjunct Clauses in Turkish. *Proceedings of the X. International Conference on Turkish Linguistics,* Boğaziçi University, İstanbul, 2000.

_____ (2004) Case, Referentiality and Non-configurationality. *Harvard University Working* Papers in Linguistics, ed. C. Bowern, Volume 10.

_____ (2005a) *Case, Referentiality and Phrase Structure.* PhD. Dissertation. Harvard University

_____ (2005b) "Accusative Subject in Turkish." Mediterranean Syntax Meeting, University of the Aegean, June 23-25, 2005.

_____ (2006) "Null Arguments and Case-Driven Agree in Turkish" in *Minimalist Essay* (ed.) Cedric Boeckx, John Benjamins, Amsterdam.

Pesetsky, D. and Ester Torrego (1999) Tense to C: Causes and consequences. A talk given at WCCFL 18.

Pires, A. (2001) *The Syntax of Gerunds and Infinitives.* PhD. Dissertation University of Maryland at College Park.

Postal, P. M. (1974) *On Raising: One rule of English grammar and its Theoretical Implications.* Cambridge, MA: MIT Press.

Reinhart T.& E. Reuland (1993) "Reflexivity" in *Linguistic Inquiry*, vol 24 no 4, 1993, 657-720

Rizzi, Luigi, (1986) "Null Objects in Italian and the theory of *pro*" *Linguistic Inquiry*. 17:501-557.

Rosenbaum, P. (1967) *The Grammar of English Predicate Complement Constructions*. Cambridge, Mass.: MIT Press.

Sells, P. (1987) Aspects of Logophoricity. *Linguistic Inquiry*. 18, 445-480

Sohn, K. W. (1995) *Negative Polarity Items, Scope and Economy*, Doctoral Dissertation Connecticut: The University of Connecticut.

Taylan, Eser-Erguvanlı (1979) An Odd Case in the Causative Construction in Turkish. *Proceedings of Chicago Linguistics Society 15*, Chicago University Press.

_____ (1996). "Aspect of Control in Turkish," in *Proceedings of the Fifth International Conference on Turkish Linguistics, School of Oriental and African Studies*, 15-17 August, 1990, Volume 1.

Williams, E. (1980). Predication. *Linguistic Inquiry*. 11.203-38.

Zidani-Eroğlu, L. *(1997)* "Exceptionally Case Marked DPs as Matrix Objects," *Linguistic Inquiry 28: 219-23.*

Zimmer, K. (1976) Some Constraints on Turkish Causativization. In *the Grammar of Causative Constructions: Syntax and Semantics*, M. Shibatani. (ed.) New York: Academic Press, 399-412