



Sentential Subjects and the Freezing Principle in Turkish

Türkçede Tümcesel Özneler ve Donma İlkesi*

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ABSTRACT: The Freezing Principle, which claims that nothing can be extracted out of a moved element, was proposed to replace the pre-minimalist subject condition effects. In the present paper, extractions out of sentential subjects have been analyzed to determine the functionality of the Freezing Principle in Turkish. In the analyses of the scrambling and wh-movement structures, it was observed that the Freezing Principle successfully explains the violations that take place in such extractions. As for the relativization structures, the previous studies assert that it is possible to extract elements out of moved phrases in such constructions, which should not be possible under the freezing approach. For such constructions, this paper proposes cyclic movement of the relative clause operator from the lower embedded CP to the upper embedded CP. During this movement, this operator is not extracted out of any moved phrase; therefore, the Freezing Principle is not violated. This paper proposes that the Sentential Subject Constraint holds in Turkish and the Freezing Principle successfully explains all instances of ungrammatical sentential subject extractions.

Keywords: generative syntax, the sentential subject constraint, the freezing principle, Turkish.

ÖZ: İndirgemeci sözdizimde, önceki dönemlerde kabul gören özne koşulu yerine taşınmış bir öğeden taşıma yapılamayacağını savunan Donma İlkesi önerilmektedir. Mevcut çalışmada, Türkçedeki tümcesel öznelerden dışarıya yapılan taşımalara odaklanılmış ve Donma İlkesinin bu dildeki işlevselliği araştırılmıştır. Çalkalama ve Ne-Taşıma yapılarının incelenmesi sonucunda, Donma İlkesinin bu tür taşımalar esnasında oluşan ihlalleri başarı ile açıkladığı sonucuna varılmıştır. Mevcut bağlamda ilgilendirme yapıları ele alındığında, önceki çalışmalar bu tür yapılardan dışarı taşıma yapılmasının mümkün olduğunu savunmaktadır ki bu durum Donma İlkesine tezat oluşturmaktadır. Bu çalışma, bu tür yapılarda, ilgi tümceciği operatörünün en alt içerleyişik tümceciğin tümleyici öbeğinden bir üst içerleyişik tümceciğin tümleyici öbeğine döngüsel olarak taşındığını savunmaktadır. Bu taşıma esnasında ise bu operatörün önceden taşınmış herhangi bir öğeden dışarı çıkartılmadığı, dolayısıyla da Donma İlkesinin bu tür yapılarda ihlal edilmediği iddia edilmektedir. Mevcut çalışmada, Tümcesel Özne Kısıtlamasının Türkçe için işlevsel olduğu ve Donma İlkesinin tümcesel öznelerden dışarıya yapılan her türlü dilbilgisi dışı taşımayı başarı ile açıkladığı savunulmaktadır.

Anahtar sözcükler: üretici sözdizim, tümcesel özne kısıtlaması, donma ilkesi, Türkçe.

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Introduction

In many languages, it is observed that extractions out of adjuncts and subjects are always worse than extractions out of complements. For instance, in English:

- (1) Who did George claim [that he saw { who } yesterday]?
- (2) *Who did Mary start to cry [after she saw { who } yesterday]?
- (3) *Who did [that Mary get angry with { who }] made us very surprised?

As exemplified above, wh-extraction out of an adjunct (2) or a subject (3) is worse than extraction out of a complement (1) in this language.

To explain the source of this asymmetry, a number of island constraints such as the Adjunct Island Constraint, the Relative Clause Constraint (which were unified under the title of the adjunct condition later) and the Sentential Subject Constraint (which was defined as the subject condition in the following years) were proposed in the literature.

Huang (1982) formulated the Condition on Extraction Domain (CED hereafter) to unify the subject condition and the adjunct condition. According to the CED, extraction out of domain D is possible only if D is properly governed. Since complements are properly governed in the derivation, extractions out of them do not result in ungrammaticality. On the other hand, extractions out of subjects / adjuncts are ruled out by the CED. This government-based locality condition that restricts movement operations could successfully unify the previously defined island constraints such as Adjunct Island Constraint, Relative Clause Constraint and Sentential Subject Constraint under the same title.

Within the Minimalist Program, the notion of ‘proper government’ has been abandoned. Therefore, it was necessary to explain the GB-based CED effects with the minimalist terms. Instead of proposing a unified account for the pre-minimalist CED effects, the adjunct condition and the subject condition have been handled separately.

With regard to the extractions out of adjuncts, it was first Lebeaux (1991) who claimed that syntactic structures are not always built in a completely cyclic, bottom-up fashion, but rather, some syntactic elements—in particular, adjuncts—can be merged *late*, or counter-cyclically. This hypothesis has gained considerable interest in the following years (Nissenbaum, 1998; Sauerland, 1998; Fox & Nissenbaum, 1999; Stepanov, 2001; 2007; Fox, 2002; Boskovic, 2004; Henderson, 2007). For instance, Stepanov (2001; 2007) proposed the Late Adjunction Hypothesis (the LAH, hereafter) to replace the GB-based adjunct condition affects. According to the LAH, adjunction takes place after all substitution, that is, it is operated “post-cyclically”. Cyclic movement out of adjuncts is not possible because adjuncts are not present at that point in derivation. Hence in (2) above, it is not possible to move anything out of the adjunct clause, [after she saw { who } yesterday] as it enters to the derivation post-cyclically.

As for the extractability out of subjects, it is explained through the Freezing Principle, which was based on Ross (1967), Wexler & Culicover (1980) and further discussed within the minimalist framework by Takahashi (1994), Boeckx (2003) and Rizzi (2006; 2010). This principle, which is commonly known as the Criterial Freezing Hypothesis after Rizzi (2006), asserts that movement cannot take place from a moved XP.

According to this principle, an element moved to a position dedicated to some scope-discourse interpretive property, a criterial position, is frozen in place. That is to say, once a phrase moves in the derivation, it is impossible to extract anything out of it as it is frozen after the movement. According to the vP Internal Subject Hypothesis, subjects originate within vP and move to the spec TP position to check the uninterpretable EPP feature that exists in this node. Therefore, it is impossible to extract anything out of them once they move to the spec TP position. This principle successfully explains Sentential Subject Constraint (subject condition) violations within minimalist framework. Thus, in (3) above, nothing can be extracted out of the sentential subject: [that Mary got angry with {who}].

Long distance scrambling and operator movement out of adjunct constructions in Turkish were previously analyzed by Çakır (2018) in accordance with the Late Adjunction Hypothesis (LAH). As he argues, in cooperation with the Phase Impenetrability Condition, the LAH successfully explains all kinds of extractions out of adjunct clauses in Turkish. To examine the other type of pre-minimalist CED effects, the present paper focuses on sentential subjects in Turkish. It aims to analyze the validity of the Freezing Principle in this language.

Sentential Subjects in Turkish

The predicates of sentential subjects in Turkish are either marked with factive nominal –DIK, -AcAk or non-factive nominal –mA just like in the case for complement clauses:

- (4) [Mustafa'nın çantayı kaybetmesi] bizi öfkелendirdi.
 Mustafa-GEN bag-ACC lose-NFN-3.SG us make-angry-PAST
 [That Mustafa lost the bag] made us angry.
- (5) [Kerem'in projeyi bitirdiği] herkes tarafından öğrenildi.
 Kerem-GEN project-ACC complete-FN-3.SG everybody by learn-PASS-PAST
 [That Kerem completed the project] was learnt by everybody.

As exemplified in (4) and (5), while factive nominal markers are used when the matrix verb is in passive voice, non-factive nominal markers are used in active structures.

Wh-operator Movement and Long Distance Scrambling out of Sentential Subjects

In the literature, there have been a few studies that focus on the Sentential Subject Constraint (SSC hereafter) in Turkish. For instance, Arslan (1999), Görgülü (2006) and Çakır (2015; 2016) examined wh-extractions out of sentential subjects and proposed that the SSC holds in Turkish as far as wh-adjuncts are concerned. That is to say, while the operators of wh-adjuncts are subject to the SSC, the movement of argument wh-operators does not yield any ungrammaticality:

- (6) a. [Cem'in kime sinirlenmesi] herkesi üzdü?
 Cem-ACC who-DAT get angry-NFN-3.SG everybody-ACC make-unhappy-PAST
 [Who did that Cem get angry with {who}] made everybody unhappy?

- b. *[Cem'in neden sinirlenmesi] herkesi üzdü?
 Cem-ACC why get angry-NFN-3.SG everybody-ACC make-unhappy-PAST
 [Why did that Cem get angry{*why*}] made everybody unhappy?

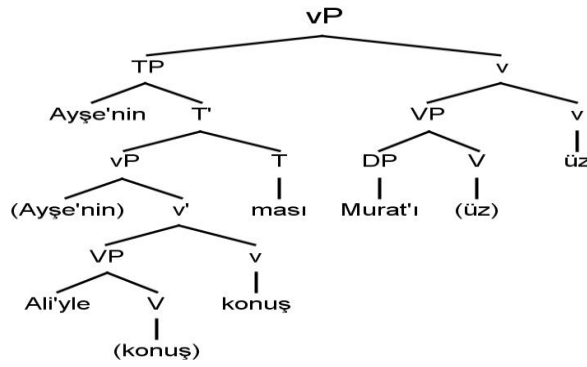
The reason for the argument & adjunct asymmetry observed in (6) is explained as a difference in the merging nodes of the wh-operators in the sentences (Aoun and Li, 1993). That is to say, since the operator of the wh-argument in (6a) is directly generated within the matrix CP position, it is not subject to the SSC. On the other hand, the operator of the wh-adjunct in (6b) originates within the embedded sentential subject, and then moves to the matrix CP. This movement, however, is subject to the SSC.

When long distance scrambling to the sentence initial position is taken into account, it is observed that neither arguments nor adjuncts can scramble out of sentential subjects in Turkish:

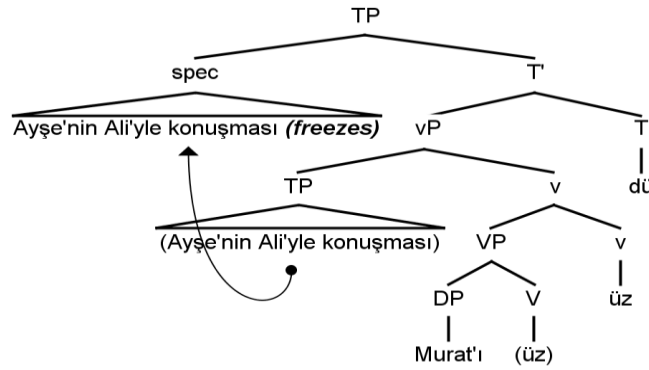
- (7) a. *Ayşe'nin Murat'ı [*Ayşe'nin*] Ali'yle konuşması [*Murat'ı*] sinirlendirdi.
 Ayşe-GEN Murat-ACC Ali-with talk-NFN-3.SG annoy-PAST
 [That *Ayşe* talked to Ali] annoyed *{Murat}*.
- b. *Kimin Murat'ı [*kimin*] Ali'yle konuşması [*Murat'ı*] sinirlendirdi?
 Who-GEN Murat-ACC Ali-with talk-NFN-3.SG annoy-PAST
 [Who did that Ayşe talked to *{who}*] annoyed *{Murat}*?
- (8) a. *Hunharca bizi [Murat'ın Ebru'yu *hunharca*] öldürmesi [*bizi*] dehşete düşürdü.
 Bloodthirstily us Murat-GEN Ebru-ACC kill-NFN-3.SG horrify-PAST
 [That Murat killed Ebru *{bloodthirstily}*] horrified *{us}*.
- b. *Nasıl bizi Murat'ın Ebru'yu [*nasıl*] öldürmesi [*bizi*] dehşete düşürdü?
 How us Murat-GEN Ebru-ACC kill-NFN-3.SG horrify-PAST
 How did [that Murat killed Ebru *{how}*] horrified *{us}*?

As exemplified in (7) and (8), it is not possible to scramble anything out of the sentential subjects in Turkish no matter it is a wh- or non-wh phrase. These observations are in line with the assertions of the Freezing Principle. For instance, (7a) is derived in the following stages:

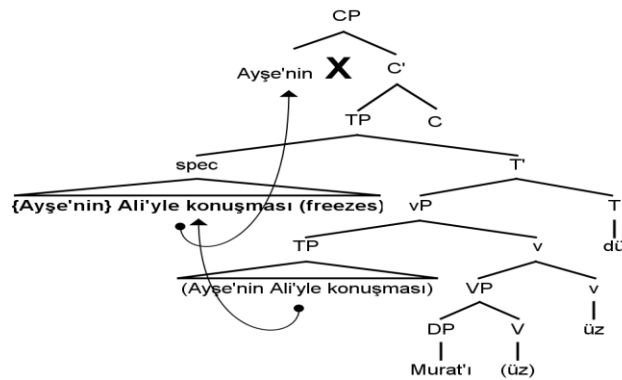
In accordance with the vP Internal Subject Hypothesis, the sentential subject is derived in the spec position of the matrix vP:



In the next step of the derivation, the matrix vP merges with the matrix T'. Then, the whole embedded TP moves to the spec TP position of the matrix clause to check the EPP feature. As it has completed a criterion, the embedded TP freezes at this node:



Then, the matrix TP merges with the matrix C'. At this point of the derivation, the movement of the phrase 'Ayşe'nin' (Ayşe-GEN) to the matrix CP results in ungrammaticality due to the freezing effects:



Hence, as far as the scrambling and wh-movement structures that have been hitherto analyzed are taken into account, it is safe to conclude that the SSC holds in Turkish and the Freezing Principle successfully explains the violations that are observed in such extractions.

Along with long distance scrambling and wh-operator movement structures, the island phenomenon has been discussed in other A' constructions such as relativization as well. For instance, Kornfilt (2003; 2008) examined the functionality of the Sentential Subject Constraint in relativization structures in Turkish. Before proceeding ahead, however, it is necessary to provide some basic information about the relative clause constructions in this language.

Relative Clauses in Turkish

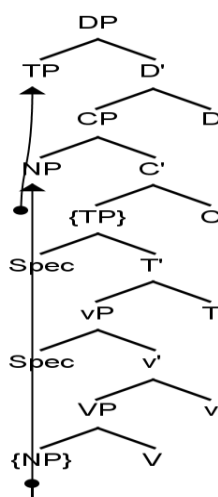
In Turkish, the verbs of relative clause constructions are participles and the modified heads always appear in the right-most head position. There are two relative clause forms in Turkish which in broad terms exhibit a subject/non-subject asymmetry. The verb of the relative clause is either marked with a specific subject participle (-*(y)An*, -*Ir/-Ar*, -*AsI*, -*mAz*, -*mIs*), or with a specific object participle (-*DIK*, -*(y)AcAK*). They are used to relativize the subjects and non-subjects respectively (Çağrı, 2005; Yarbay Duman et. al., 2008). The following sentences exemplify these cases:

- (9) a. Burcu [DP [CP kolyeyi çalan] kadını] tanıyor.
 Burcu necklace-ACC steal-SPAR woman-ACC know-PROG
 Burcu knows [the woman [who stole the necklace]].
- b. Mesut [DP [CP Erman'ın çantayı sakladığı] odayı] biliyor.
 Mesut Erman-GEN bag-ACC hide-OPAR-3SG room-ACC know-PROG
 Mesut knows [the room [in which Erman hid the bag]]

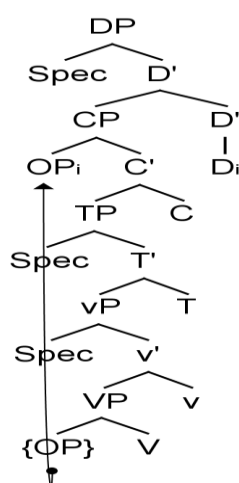
Relative Clause Formation Strategies in Turkish

In the literature, there are two relative clause formation strategies applied to Turkish. The first one is the Operator Movement Approach (Chomsky, 1977) and the other one is the Head Rising Approach (Kayne, 1994).

If we start with the second strategy, it is based on the Linear Correspondence Axiom of Kayne (1994). According to this approach, relative clauses are complement structures and they involve a D head with a CP complement. In head-initial languages such as English, the relativized head moves from its base position to the spec CP position in such constructions. In head-final languages such as Turkish, however, there is an additional movement: the TP moves to the spec DP position:



The other relative clause formation strategy applied to Turkish is the Operator Movement Approach (Chomsky, 1977). According to this approach, the relative clauses are adjunction structures. The relativized head is directly generated in the matrix clause and an overt or null operator moves from its base position to the spec CP position of the relative clause. Since there are no overt operators in Turkish, it is assumed that a null operator moves from its base position to the embedded spec CP in this language:



In the present paper, the operator movement approach is preferred over the head rising approach because, as Meral (2004) also states, relative clauses in Turkish are not complementation structures but adjunction structures. In such constructions, CP adjoins to DP (or NP¹). Besides, as Özçelik (2006: 13) also asserts, the complementation analysis predicts that the head ‘determiner’ takes the whole CP of the RC as its complement, and there is no definite determiner in Turkish that selects the CP as its complement. Therefore,

¹ The presence of a DP projection in Turkish is under discussion. While Arslan (2006) is in favor of the existence of a DP in Turkish, Öztürk (2005) stands against it. In the present study, however, DP / NP terms have been used interchangeably.

the operator movement approach appears to be the better option to explain the relative clause structures in Turkish.

The Movement of the Relative Clause Operator out of Sentential Subjects

Kornfilt (2003; 2008) proposed noteworthy assertions with regard to the SSC & relativization constructions. After analyzing the extractions of the relativized heads (operators¹) out of sentential subjects in Turkish, she concluded that the SSC holds in Turkish in the form of Left-Dislocation Island Constraint. According to her, sentential subjects must be topicalized before relativization process starts. They must move to the spec Topic Phrase before anything extracted out of them. Therefore, whatever is extracted out of them is not subject to the SSC since they are not in the sentential subject position anymore. She further proposes that the marked $-(y)An$ and the unmarked $(-DIK)$ cases behave differently in this topicalization process.

While in the marked case $-(y)An$, the sentential subject can be successfully topicalized, in the unmarked case $(-DIK)$, due to the overt Agr, topicalization is forced to be a left-dislocation structure. She provides the following examples (2008: 13-14):

- (10) a. [[Mimarın e_i rüşver verdiği]_j [e_j bilinen]] adam_i
 Architect-GEN bribe-FN-3.SG know-PASS-(y)An man
 The man who that the architect bribed is known
- b. [[Müdürün e_i kovacağı]_j [e_j duyulan]] öğretmen_i
 Director-GEN fire-FutN-3.SG hear-PASS-(y)An teacher
 The teacher who that the director was going to fire (him) was heard
- c. *[[Mimarın e_i rüşver verdiği]_j [pro_j bilindiği]] adam_i
 Architect-GEN bribe-FN-3.SG-GEN know-PASS-FN-3.SG man
 The man who that the architect bribed is known
- d. *[[Müdürün e_i kovacağı]_j [pro_j duyulduğu]] öğretmen_i
 Director-GEN fire-FutN-3.SG-GEN hear-PASS-FN-3.SG teacher
 The teacher who that the director was going to fire (him) was heard

Kornfilt argues that the ill-formedness of the unmarked strategy in (10c) and (10d) represents the Sentential Subject Constraint (now in the form of a Left-Dislocation Constraint). On the other hand, the grammaticality in the marked strategy which is exemplified in (10a) and (10b) cannot be regarded as an indication for the non-functionality of the SSC since the relativized head is extracted out of the Topic Phrase rather than the sentential subject.

When the assertions of Kornfilt (2003; 2008) are assessed with respect to the Freezing Principle, the ill-formedness of the unmarked strategy can be regarded as a freezing problem no matter it is named as the Sentential Subject Constraint or the Left Dislocation Constraint. In such structures, since there is an extraction out of a moved phrase, freezing effects are observed.

¹ The present paper proposes that the relativized heads are base generated in matrix clause. Therefore, what Kornfilt (2003; 2008) asserts by the extraction of the relativized heads is regarded as the extractions of the operators in this paper.

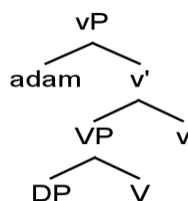
As for the marked strategy, however, the Freezing Principle cannot explain the grammatical extractions in such structures. The elements may not be extracted out of the sentential subjects as Kornfilt (2003; 2008) asserts. Yet, no matter they are extracted out of a TP or TopP, it is for certain that they are extracted out of a moved phrase, which should not be possible according to the Freezing Principle.

The questions that arise at this point are: why is the Freezing Principle violated in the cases such as (10a) and (10b)? Why is it non-functional in such relativization structures though it successfully explains other relativization, scrambling and wh-operator movement structures?

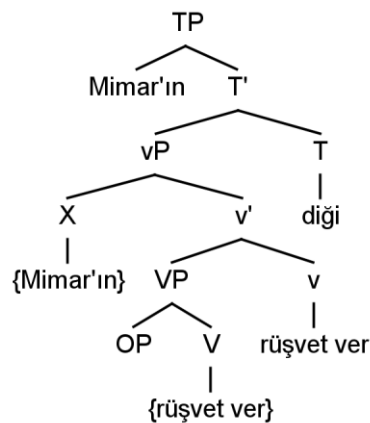
The present paper proposes that the Freezing Principle is, in fact, not violated in such constructions. It is argued here that nothing is extracted out of a moved element in the cases such as (10a) and (10b) given above. This paper proposes that (10a) is derived in the following stages:

- (10a). [[[Mimarın *ei* rüşver verdiği] bilinen] *adamı*]
 Architect-GEN bribe -FN-3.SG know-PASS-(y)An man
 The man who that the architect bribed is known

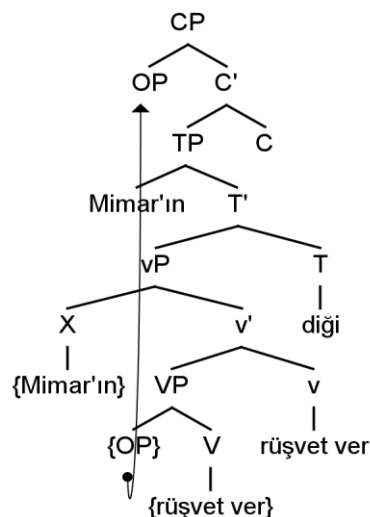
The relativized head originates within the matrix clause, either in the spec vP position (if it is a subject) or in the complement position of the VP (if it is an object). If we take the first option, the derivation looks like as follows:



In accordance with the Late Adjunction Hypothesis, the relative clause, which functions as an adjunct, should be added to the derivation later. As for the derivational stages for this construction, the more deeply embedded TP is derived as:

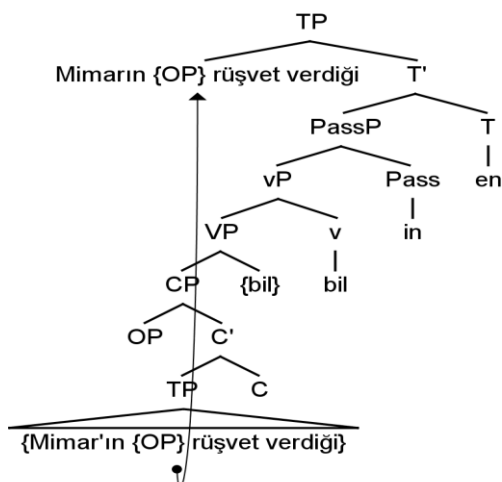


Then, this embedded TP merges with the embedded C' node. At this point of the derivation, the relative clause operator moves to the spec CP position. The reason for this movement is that the clause “[Mimarın rüşvet verdiği] / [The man [who the architect bribed]]” is a grammatical relative clause construction as well. That is to say, it is also possible that the adjunct construction “[Mimarın rüşvet verdiği] / [who the architect bribed]]” can merge with the relativized head that had already been derived in the matrix clause. The relative clause operator does not have to be a part of any larger clause before moving to the spec CP position. Therefore, it moves to the spec CP position before any other movement takes place in the derivation:

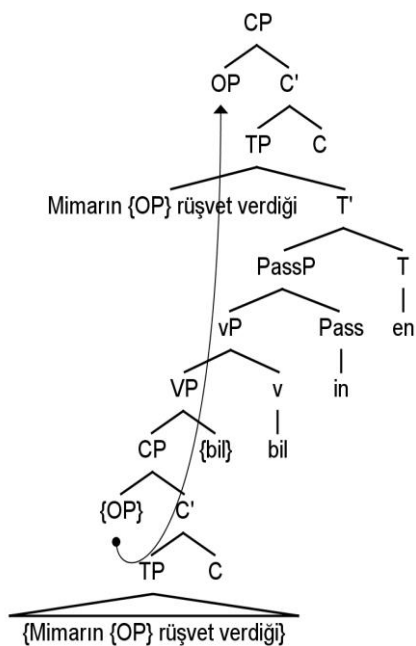


Then, the whole embedded clause merges with the larger embedded clause. At this step of the derivation, it is not the whole deeply embedded CP that moves to the sentential subject position (TP) of the larger clause as an EPP requirement, but only the lower TP.

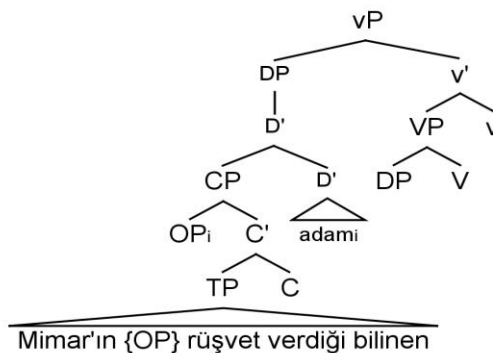
Since spec TP position is not a suitable landing side for the relative clause operator, it does not move to this node:



In the next stage of the derivation, the larger embedded CP merges with the derivation and the relative clause operator moves to the spec position of this phrase:



In the final stage of the derivation, the whole relative clause construction adjoins to the relativized head that had already been derived in the matrix vP:



It should be noted that in any stages of this derivation, nothing is extracted out of a moved element. The operator of the relative clause first moves to the spec position of the deeply embedded CP, and then it moves to the spec position of the upper embedded CP. Since it is not extracted out of any moved phrase, its cyclic movement through the lower embedded CP to the upper embedded CP does not violate the Freezing Principle.

Conclusion

The present paper focuses on the sentential subjects in Turkish to analyze the functionality of the Freezing Principle, which was put forward to replace pre-minimalist subject condition effects. According to this principle, nothing can be extracted out of moved elements such as sentential subjects. After examining some scrambling and wh-movement structures, it is concluded that the SSC holds in Turkish and the Freezing Principle successfully explains the violations that are observed in such extractions.

As for the relativization structures, Kornfilt (2003; 2008) argued that the grammatical extractions out of relative clauses cannot be regarded as an indication for the non-functionality of the SSC since the relativized head is extracted out of the Topic Phrase rather than the sentential subject. This analysis, however, contains problems with regard to the Freezing Principle. No matter they are extracted out of a TP or TopP, it is for certain that they are extracted out of a moved phrase, which should not be possible under the freezing approach. For such constructions, this paper proposes cyclic movement of the relative clause operator from the lower embedded CP to the upper embedded CP. During this movement, this operator is not extracted out of any moved phrase; therefore, the Freezing Principle is not violated in such structures. This paper proposes that the Sentential Subject Constraint holds in Turkish and the Freezing Principle successfully explains all instances of ungrammatical sentential subject extractions.

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