

## ABSTRACT

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  IN TURKISH

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This dissertation examines the elliptical structures of (a) sluicing (John called someone, but I don't know who!), (b) fragment answers (A: Who did John call?, B: Mary!), (c) gapping (John is eating ice-cream, and Mary apple pie!), and (d) Right Node Raising (John cooked and Mary ate the apple pie!) in Turkish and gives a 'PF-deletion'-based analysis of all these elliptical structures. As to sluicing and fragment answers, evidence in support of PF-deletion comes from P-(non-)stranding and Case Matching, respectively. Further, these elliptical structures are island-insensitive in Turkish. As to gapping, this study gives a 'movement + deletion' analysis, in which remnants in the second conjunct raise to the left periphery of the second conjunct and the rest of the second conjunct is elided. One striking property of gapping in Turkish is that it is a root phenomenon; in other words, it cannot occur in complement clauses, for instance. As to Right Node Raising, again, a PF-deletion analysis is given: the identical element(s) in the first conjunct is/are elided under identity with (an) element(s) in the second conjunct. The striking property of RNR is that remnants in this elliptical structure may not be clause-

mate, in contrast to other elliptical structures –where remnants can be non-clause-mate under very specific contexts. This, I suggest, is due to the fact that PF-deletion in RNR applies at a later derivational stage than in other elliptical structures. In this stage, a syntactic derivation consists of linearized (sub-)lexical forms, where there is no hierarchical representation. This also suggests that Markovian system exists in grammar.

In brief, this thesis looks at different elliptical structures in Turkish, and gives arguments for PF-deletion for all these elliptical structures, which has interesting implications for the generative theory.

# DIMENSIONS OF ELLIPSIS: INVESTIGATIONS IN TURKISH

By

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## CHAPTER 1: INTRODUCTION

In this chapter, I will give the main properties of the Minimalist program, the framework in which this study has been done, in section 1. In section 2, I will give the basic syntactic properties of Turkish, and I will introduce the PF-deletion theory of ellipsis and summarize findings in this thesis in section 3.

### 1. The Minimalist Program

In generative grammar, it is a standard assumption that ‘a language consists of two components: a lexicon and a computational system. The lexicon specifies the items that enter into the computational system, with their idiosyncratic properties. The computational system uses these elements to generate derivations and SDs [A.I.: structural descriptions]. The derivation of a particular linguistic expression, then, involves a choice of items from the lexicon and a computation that constructs the pair of interface representations’ (Chomsky 1993: 168-9).<sup>1</sup>

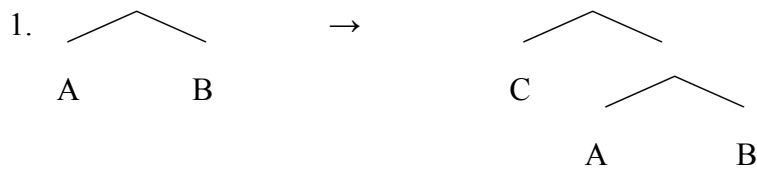
The Minimalist Program (MP, hereafter) was first introduced in Chomsky (1993). Unlike its predecessor, Government-Binding Theory, it eliminates the levels of Deep Structure

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<sup>1</sup> Page number references for Chomsky (1993) are to the version that appeared in Chomsky (1995).

and Surface Structure, preserving only PF and LF levels, the interface levels with sensory/motor and intentional/conceptual components of human cognition. Therefore, conditions on representations hold only at the interface levels, PF and LF: ‘[A] linguistic expression [is] a formal object that satisfies the interface conditions in the optimal way’ (Chomsky 1993: 171).

Another main property of MP is that it deduces ‘constraints on syntactic derivations from general considerations of economy and computational simplicity’ (Lasnik 2002: 432). In one sense, MP is a return to early transformational syntax (Chomsky 1955, 1957) in that lexical items are inserted throughout the derivation that goes bottom-up via generalized transformations. In the following, for example, let A, B and C be lexical/functional items taken from the lexicon, where a possible derivation is (to put labels aside):



Another key aspect of MP is movement as Last Resort, in opposition to Move- $\alpha$  of GB-era, which stated that movement is a free operation (Lasnik & Saito 1992): Move a phrase/head when it is required, i.e. to check uninterpretable features of an element higher in the tree structure (Suicidal Greed, developed out of Lasnik’s (1995a) *Enlightened Self Interest*). Suicidal Greed is a key ingredient of minimalism that I will make use of this in that remnants in sluicing, fragments and gapping move to check their

uninterpretable features as well as to check some feature/property (e.g., EPP) of the head whose Specifier they move to.

MP also put forward *Inclusiveness*, which requires that a syntactic derivation can be a combination only of elements in the Numeration. One consequence of Inclusiveness is the Copy Theory of Movement: the residue of movement is a copy of the moving element itself. The residue cannot be a trace because a trace is not a part of a Numeration/the Lexicon. In other words, a trace would violate Inclusiveness. Numeration is ‘a set of pairs (LI, *i*), where LI is an item of the lexicon and *i* is its index, understood to be the number of times that LI is selected’ (Chomsky 1995: 225). Therefore, a syntactic derivation is a licit combination of the members of a specific Numeration. Narrow Syntax does not have any direct access to the Lexicon, Numeration being intermediary between them. In the context of this study, following (1972), Kitahara (1997), Merchant (2008)<sup>2</sup> and Lasnik (2001a), I take \*-insertion (which Chomsky (1972) suggested is assigned to an island when a phrase crosses it) as a violation of Inclusiveness.

In MP, for a derivation D to converge, it must be legitimate at both PF and LF, legitimacy being a matter of checking of uninterpretable features F of a syntactic element (phrase/head) by the interpretable features F of another syntactic element. Let’s take F as Case features, for instance: T<sup>0</sup> bears interpretable Case features (Nominative in English), and a (subject) DP bears uninterpretable Case features. For that DP to be a legitimate object at PF and LF, it needs to check its uninterpretable Case features. Feature-checking is a novelty of MP, which assumes that lexical items enter a derivation fully-inflected

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<sup>2</sup> Merchant (2008) has been in circulation since 2001 and is referred to as Merchant (2001(b)) in many works that cite it. However, I will refer to it as Merchant (2008) in this work.

(the lexicalist approach) (though, see Lasnik (1995b) for a hybrid view that in English auxiliaries are fully-inflected, whereas main verbs pick up their affixes throughout syntactic derivation). So, unlike Government-Binding Theory, there is no Case Assignment, for instance. Uninterpretable features are required to motivate movement, which is not a free operation in MP, since they are illegible at either or both PF and LF and make a derivation crash which carries them unless checked. Thus, a phrase/head moves to check either its own uninterpretable features or those of the position they move to. If uninterpretable features are strong, movement is overt, and if they are weak, movement is covert. In MP, lexical items consist of three types of features: semantic, phonological and formal. The formal features are Case, phi-, categorial and EPP features in Chomsky (1995b). Functional categories like T and *v* bear interpretable Case features, and uninterpretable phi- and EPP features, whereas nominal projections bear uninterpretable Case but interpretable phi-features. Phi-features are LF-interpretable, but Case and EPP features are not. As stated before, I suggest that remnants in sluicing and fragments move to their pronunciation position to check their [-focus] features, following Chomsky (1995). In gapping, the first remnant moves to Spec, ContrastiveTopicP to check its [-contrastive topic], and the second remnant moves to Spec, ContrastiveFocusP to check its [-contrastive focus] features.

Another striking property of MP is that there are two (geometric) relations: Specifier-Head and Head-Complement relations. Head-Complement relation is the most basic relation in that it specifies categorial-/semantic-selection relations (see Lasnik & Uriagereka (2005) for a recent discussion regarding c- vs. s-selection). Spec-Head relation is required for feature-checking and can be a consequence of satisfaction of the

Extended Projection Principle (EPP) (Lasnik 2001b). A note on EPP is required at this stage: EPP was first put forward by Chomsky (1981) under the name Principle P as ‘the structural requirement that certain configurations. . . must have subjects . . .’ (p. 27). Chomsky (1982) used the term the Extended Projection Principle (EPP) and remarked that it does not follow from the Projection Principle, which requires that “lexical structure must be represented categorically at every syntactic level” (Chomsky 1986a). In Chomsky (1995), it is a strong feature of a high functional head in clausal structure which needs to be checked in overt syntax. In Chomsky (2000), since feature-checking is reduced to a long-distance agreement relation called *Agree*, EPP has nothing to do with feature-checking: as in Chomsky (1981, 1982), it is a structural requirement that certain functional heads must have a specifier (Lasnik 2001b: 357). This property is relevant to this study because it would be hard to theoretically motivate why a [+focus] phrase moves to the left-edge of a clause in ellipsis, whereas it does not in non-elliptical cases (the default focus position in Turkish is the preverbal domain/position). I contend that a focus head with [+E(LLIPSIS)] feature also bears an EPP feature/property to be checked/satisfied by the phrase with which the relevant head enters a checking relation.

## 2. Syntactic Aspects of Turkish

### *-agglutinative*

Turkish belongs to the Altaic sub-family of the Uralic-Altaic language family. It is mainly spoken in Modern Turkey. It is an agglutinative language, as the following example clearly shows:

2. Uygar-laş-tır-a-ma-dık-lar-ımız-dan-mı-sınız?  
 civilized-deriv-caus-ability-neg-relativizer-plu-1pposs-abl-Q-2p  
 ‘Are you one of those we could not civilize?’

*-head-final*

Turkish is a strictly head-final language (see Keleşir 1996 and Kural 1997 for arguments that Turkish cannot be a head-initial language as argued for by Kayne (1994)). In the following example, all the heads are in the final element of the phrase they head:

3. a. [DP konuş-an **çocuk** ]<sup>3</sup>  
 speak-SR child  
 ‘the child who speaks’
- b. [FinP Tolga Ecem-i **aradı** ]  
 -ACC called  
 ‘Tolga called Ecem.’
- c. [AP oldukça **uzun** ]  
 quite tall  
 ‘quite tall’

*-word-order*

The canonical word order of Turkish is Subject-Object-Verb (SOV):

- |          |          |          |
|----------|----------|----------|
| <b>S</b> | <b>O</b> | <b>V</b> |
|----------|----------|----------|
4. [FinP Tolga Ecem-i **aradı** ]  
 -ACC called  
 ‘Tolga called Ecem.’

---

<sup>3</sup> See Öztürk (2005) for a view against DP projection in Turkish.



*-scrambling*

Turkish is also very prolific in scrambling. Both (multiple) leftward- and rightward-scrambling are licensed (5-6-7-8). As is clear, superiority does not hold in multiple scrambling. Further, long-distance scrambling is possible (9) (see Erguvanlı (1984), Kural (1992, 1997), Kornfilt (1995, 1996, 2003), Aygen (2001) a.o. for scrambling in Turkish):

- |       |                                     |           |
|-------|-------------------------------------|-----------|
| 5. a. | Ahmet [bu kitab-1] Berna-ya ver-miş | S DO IO V |
|       | this book-ACC       -DAT gave       |           |
|       | ‘Ahmet gave this book to Berna.’    |           |
| b.    | Ahmet Berna-ya [bu kitab-1] vermiş. | S IO DO V |
| c.    | [Bu kitab-1] Ahmet Berna-ya vermiş. | DO S IO V |
| d.    | Berna-ya Ahmet [bu kitab-1] vermiş. | IO S DO V |
| e.    | [Bu kitab-1] Berna-ya Ahmet vermiş. | DO IO S V |
| f.    | Berna-ya[bu kitab-1] Ahmet vermiş.  | IO DO S V |
| 6. a. | Ahmet [bu kitab-1] vermiş Berna-ya. | S DO V IO |
| b.    | [Bu kitab-1] Ahmet vermiş Berna-ya. | DO S V IO |
| c.    | Ahmet Berna-ya vermiş [bu kitab-1]. | S IO V DO |
| d.    | Berna-ya Ahmet vermiş [bu kitab-1]. | IO S V DO |
| e.    | [Bu kitab-1] Berna-ya vermiş Ahmet. | DO IO V S |
| f.    | Berna-ya[bu kitab-1] vermiş Ahmet.  | IO DO V S |
| 7. a. | Ahmet vermiş [bu kitab-1] Berna-ya. | S V DO IO |

- |  |           |
|--|-----------|
| b. Ahmet vermiş Berna-ya [bu kitab-1]. | S V IO DO |
| c. [Bu kitab-1] vermiş Ahmet Berna-ya. | DO V S IO |
| d. [Bu kitab-1] vermiş Berna-ya Ahmet. | DO V IO S |
| e. Berna-ya vermiş Ahmet [bu kitab-1]. | IO V S DO |
| f. Berna-ya vermiş [bu kitab-1] Ahmet. | IO V DO S |

- |   |           |
|---|-----------|
| 8. a. Vermiş Ahmet [bu kitab-1] Berna-ya. | V S DO IO |
| b. Vermiş Ahmet Berna-ya [bu kitab-1].    | V S IO DO |
| c. Vermiş [bu kitab-1] Ahmet Berna-ya.    | V DO S IO |
| d. Vermiş [bu kitab-1] Berna-ya Ahmet.    | V DO IO S |
| e. Vermiş Berna-ya Ahmet [bu kitab-1].    | V IO S DO |
| f. Vermiş Berna-ya [bu kitab-1] Ahmet.    | V IO DO S |

(Kural 1992: 1-2)

9. Uğur-un<sub>1</sub> Ibrahim [ \_\_\_\_<sub>1</sub> Ecem-e \_\_\_\_<sub>2</sub> verdiği] biliyor kitab-<sub>12</sub>.  
 -GEN -DAT gave knows book-ACC-  
 ‘Ibrahim knows that Uğur gave the book to Ecem.’

*-wh-in-situ*

Turkish is also a *wh*-in-situ language, a *wh*-phrase does not need to move to the clause-initial position (for *wh*-phenomenon in Turkish, see Akar (1990), Arslan (1999), (Aygen-Tosun (1999) and Görgülü (2006)):

10. Tolga kim-i /nerede/ne zaman/neden aradı?  
 who-ACC/where/ what time/ why called  
 ‘Who/where/when/why did Tolga call?’

A *wh*-phrase can be scrambled only to the left periphery, but not to the right periphery:

11. (Kim-i<sub>1</sub>) Tolga \_\_\_\_<sub>1</sub> aradı (\*kim-i) ?  
who-ACC called who-ACC  
'Who did Tolga call?'

*-Interim summary*

These are the main aspects of Turkish syntax that we need to keep in mind while investigating ellipsis in Turkish in the following chapters.

### 3. Ellipsis

The origin of the word *ellipsis* is Greek ἔλλειψις, *élleipsis*, which means "omission".<sup>4</sup> It refers to structures where a certain amount of a syntactic structure is omitted.

It's the aim of this study to investigate what can be pronounced and what can be omitted under what conditions and to what degree in Turkish. The elliptical structures to be investigated in this thesis are sluicing, fragments, (forward) gapping and right node raising (RNR), an example for each is given below from English (omitted material is struck-through):<sup>5</sup>

#### 12. a. *Sluicing*

John called someone, but I don't know who ~~John called~~.

#### b. *Fragment*

---

<sup>4</sup> <http://en.wikipedia.org/wiki/Ellipsis>

<sup>5</sup> Since Turkish is an overt-V-raising and pro-drop language, there is no argument for VP-deletion in this language.

A: Who did John call?

B: ~~John called~~ Mary.

c. *Gapping*

John will eat beans, and others ~~will ate~~ rice.

d. *RNR*

Norbert hates ~~sideward movement~~ and Juan loves sideward movement.

One important point to keep in mind is that ellipsis is not obligatory. It's optional since a speaker can omit the struck-through material in the examples above as well as pronounce it (generally in a distressed way (see Tancredi 1992, Fox (2000))).

The main thesis of this study is that all these elliptical structures in Turkish are PF-deletion structures, i.e. omission via PF-deletion.

There are different theories for each of these elliptical structures in the market, some of which account for only one of them. The following gives the leading theories for each of the elliptical structures introduced above:

13. a. Sluicing & Fragments: PF-deletion (Ross 1969; Lasnik 1999, 2001; Merchant 2001, a.o.)

LF-insertion (Chung, Ladusaw and McCloskey 1995)

- b. Gapping: PF-deletion (Ross 1970; Abe and Hoshi (1997), a.o.)

Low-Level Coordination + ATB-movement (Johnson 1996/2004, 2004, 2006)

Copying (Abe and Hoshi (1997) (LF-insertion), Repp 2005)

- c. RNR: *In-Situ Analyses*

PF-deletion (Wexler and Culicover 1980; Levine 1985, 2001; Kayne 1994; An 2007; Ince, 2009)

Multiple Dominance (Phillips 1996; Wilder 1999, 2008)

*Ex-situ Analysis*

ATB-movement (Ross 1967; Bresnan 1974; Hankamer 1971; Hudson 1976; Sabbagh 2007)

PF-deletion theories for all these elliptical structures basically argue that a syntactic structure is fully derived as its non-elliptical version is, and the identical part undergoes phonological elision in the second clause/conjunct.

In the LF-insertion theory for sluicing (CLM 1995), a *wh*-phrase is inserted in Spec, CP, and the IP complement of C is null in Narrow Syntax but is replaced by the antecedent IP in LF (*recycling*):

14. a. at Spell-Out:

Mary ate something, but I don't know [<sub>CP</sub> what C<sub>0</sub> [<sub>TP</sub> *e* ]].

b. at LF:

Mary ate something, but I don't know [<sub>CP</sub> what C<sub>0</sub> [<sub>TP</sub> Mary ate ]].

Thus, sluicing is island-insensitive in contrast to VP-ellipsis, which is PF-deletion, CLM claim (see and Merchant (2001, 2008) for an analysis of the difference between sluicing and VP-ellipsis with respect to island-(in)sensitivity under PF-deletion, and see Fox & Lasnik (2003) for the view that the difference between sluicing and VP-ellipsis is not a matter of island-(in)sensitivity):

15. a. They want to hire someone who speaks a Balkan language, but I don't remember which.

b. \*They want to hire someone who speaks a Balkan language, but I don't

remember which they do.

However, in this picture, it is not clear how the child learns that VP-ellipsis is PF-deletion and therefore island-sensitive but sluicing is LF-insertion and therefore island-insensitive. Merchant (2001) also remarks that the Case-matching and P-stranding generalizations, which are the big two arguments for PF-deletion, are unclear under LF-insertion.

Below, I will give three arguments for PF-deletion in sluicing:

16. a. Case Matching
- b. Binding
- c. P-Stranding

The first and second arguments show that there is syntactic structure in sluicing and is against the *pro*-analysis of sluicing (where the missing structure is represented by a non-pronominal *pro* co-indexed with the antecedent clause) in Lobeck (1987, 1990, 1995) and ‘what you see is what you get’ (WYSWYG) approach as in the Simple(r) Syntax model in Culicover and Jackendoff (2005). The third argument also shows that there is syntactic structure in sluicing. However, more importantly, it gives evidence against the LF-insertion analysis (Chung, Ladusaw and McCloskey (1995)) since LF-insertion cannot make any prediction with respect to P-stranding.

*Case-Matching*

As first noted by Ross (1969), a sluiced *wh*-phrase must bear the same Case that its counterpart in the non-elided version would (16&17 and 18&19). LF Insertion theory does not predict this, whereas it is predicted under PF-deletion:

17. Er will jemandem schmeicheln, aber sie wissen nicht,  
*he wants someone.DAT flatter but they know not*  
{\*wer / \*wen / wem}.  
*who.NOM who.ACC who.DAT*  
'He wants to flatter someone, but they don't know who.'

18. Sie wissen nicht, {\*wer / \*wen / wem} er schmeicheln will.  
*they know not who.NOM who.ACC who.DAT he flatter wants*  
'They don't know who he wants to flatter.'

19. Er will jemanden loben, aber sie wissen nicht,  
*he wants someone.ACC praise but they know not*  
{\*wer / wen / \*wem}.  
*who.NOM who.ACC who.DAT*  
'He wants to flatter someone, but they don't know who.'

20. Sie wissen nicht, {\*wer / wen / \*wem} er loben will.  
*they know not who.NOM who.ACC who.DAT he praise wants*  
'They don't know who he wants to praise.'

*Binding*

An argument for existence of syntactic structure in sluicing is binding into sluiced wh-phrases, as Lasnik (2001a) shows. Under the PF-deletion theory, since the relevant wh-phrase is merged lower than a quantifier, the quantifier can bind into the wh-phrase:

21. Every linguist<sub>1</sub> criticized some of his<sub>1</sub> work, but I'm not sure how much of his<sub>1</sub> work <every linguist<sub>1</sub> criticized *t*>.

22. Each of the linguists criticized some of the other linguists, but I'm not sure how many of the other linguists <each of them criticized *t*>.

Under the *pro*-based analysis, it is unclear how a pronominal element as *his* in (20) gets bound since the missing structure is represented by a non-pronominal *pro* which does not have any internal structure and therefore lacks an element in its internal structure to bind the pronominal element inside the sluiced wh-phrase.

### *P-Stranding*

As to the P-stranding generalization, a language L allows preposition-stranding in sluicing if it also allows preposition-stranding in regular wh-movement (see, though, Diego & Yoshida (2007) and Stjepanović (2008) for exceptions to this generalization). This is not predicted under the LF Insertion theory. There is no reason to base-generate only a wh-phrase (without a preposition) in Spec, CP in this theory whether a language is P-stranding or not. However, since a wh-phrase first moves to the left periphery in sluicing, it displays the same properties that wh-movement does in non-ellipsis cases:



Preposition-stranding languages:

23. English

- a. Peter was talking with someone, but I don't know (with) who.
- b. Who was he talking with?

24. Frisian

- a. Piet hat mei ien sprutsen, mar ik wyt net (mei) wa.  
*Piet has with someone talked but I know not with who*  
'Peter has talked with someone, but I don't know (with) who.'
- b. Wa hat Piet mei sprutsen?  
*who has Piet with spoken*  
'Who has Peter spoken with?'

25. Norwegian

- a. Per har snakket med noen, men jeg vet ikke (med) hvem.  
*Per has talked with someone but I know not with who*  
'Peter has talked with someone, but I don't know (with) who.'
- b. Hvem har Per snakket med?  
*who has Per spoken with*  
'Who has Peter spoken with?'

26. Danish

- a. Peter har snakket med en eller anden, men jeg ved ikke (med) hvem.  
*Peter has talked with one or another but I know not with who*  
'Peter has talked with someone, but I don't know (with) who.'
- b. Hvem har Peter snakket med?  
*who has Peter spoken with*  
'Who has Peter spoken with?'

Non-preposition-stranding languages:

27. Greek

- a. I Anna milise me kapjon, alla dhe ksero \*(me) pjon.  
*the Anna spoke with someone but not I.know with who*  
‘Anna spoke with someone, but I don’t know (with) who.’
- b. \*Pjon milise me?  
*who she.spoke with*  
‘Who did she speak with?’

28. German

- a. Anna hat mit jemandem gesprochen, aber ich weiß nicht, \*(mit) wem.  
*Anna has with someone spoken but I know not with who*  
‘Anna has spoken with someone, but I don’t know (with) who.’
- b. \*Wem hat sie mit gesprochen?  
*who has she with spoken*  
‘Who has she spoken with?’

29. Yiddish

- a. Zi hot mit emetsn geredt, ober ikh veys nit \*(mit) vemen.  
*she has with someone spoken but I know not with who*  
‘She has spoken with someone, but I don’t know (with) who.’
- b. \*Vemen hot zi mit geredt?  
*who has she with spoken*  
‘Who has she spoken with?’

30. Russian

- a. Anja govorila s kem-to, no ne znaju \*(s) kem.  
*Anja spoke with someone, but not I.know with who*  
 ‘Anja has spoken with someone, but I don’t know (with) who.’
- b. \*Kem ona govorila s?  
*who she spoke with*  
 ‘Who did she speak with?’

### 31. Slovene

- a. Anna je govorila z nekom, ampak ne vem \*(s) kom.  
*Anna aux spoken with someone but not I.know with who*  
 ‘Anna has spoken with someone, but I don’t know (with) who.’
- b. \*Kom je govorila Anna s?  
*who aux spoken Anna with*  
 ‘Who did Anna speak with?’

### 32. Bulgarian

- a. Anna e govorila s njakoj, no na znam \*(s) koj.  
*Anna AUX spoken with someone but not I.know with who*  
 ‘Anna has spoken with someone, but I don’t know (with) who.’
- b. \*Koj e govorila Anna s?  
*who aux spoken Anna with*  
 ‘Who did Anna speak with?’

### 33. Serbo-Croatian

- a. Ana je govorila sa nekim, ali ne znam \*(sa) kim.  
*Ana AUX spoken with someone but not I.know with who*  
 ‘Anna has spoken with someone, but I don’t know (with) who.’
- b. \*Kim je govorila Ana sa?  
*who aux spoken Anna with*

‘Who has Anna spoken with?’

34. Persian

- a. Ali ba kasi harf mi-zad, ?ama ne-mi-dan-am \*(ba) ki.  
*Ali with someone talk PROG-hit.3sg but not-PROG-know-I with who*  
‘Ali was speaking someone, but I don’t know (with) who.’
- b. \*Ki Ali ba harf mi-zad?  
*who Ali with talk PROG-hit.3sg*  
‘Who was Ali speaking with?’

35. Hebrew

- a. Dani katav le-mishehu, aval ani lo yode'a \*(le-)mi.  
*Dani wrote to-someone, but I not know to-who*  
‘Dani wrote to someone, but I don’t know (to) who.’
- b. \*Mi Dani katav le?  
*who Dani wrote to*  
‘Who did Dani write to?’

(Merchant 2001)

In chapter 2 on Sluicing in Turkish and in chapter 3 on fragments in Turkish, I argue for PF-deletion, show that both sluicing and fragments are island-insensitive and pursue an island-repair strategy a la Merchant (2001, 2008) and Lasnik (2001a). The findings with respect to island-insensitivity of sluicing in Turkish disconfirm Ince (2006), which reported that sluicing of (Case-marked) wh-phrases is island-sensitive in Turkish. In the current study, first I found out what structures are islands in Turkish by asking 7 native speakers to grade examples of scrambling out of different types of islands (relative clauses, adjuncts (with(out) agreement), if-clauses). After confirming that these structures

are islands (based on the average of the grades all the consultants gave), I asked the same consultants to judge sluicing and fragment answers out of islands. The results have shown that both sluicing and fragments are island-insensitive in Turkish. This shows that sluicing behaves in Turkish the same way it does in English and other languages reported in Merchant (2001). In chapter 3, I will raise some doubts with respect to Merchant's (2005) observation that fragment answers are island-sensitive in contrast to sluicing in English. I will show that all the fragment data that Merchant (2005) gives are contrastive fragment answers where a fragment answer contrasts with another definite expression in the antecedent clause. This is part of a more general picture since contrastive sluicing and gapping –where the remnants contrast with their correlate in the antecedent clause- are also island-sensitive.

Chapter 4 is on forward gapping in Turkish (hereafter, I will use 'gapping instead of 'forward gapping'). As to gapping, PF-deletion models argue that each conjunct is a clausal projection (IP/CP) in coordination structures with gapping (36). The 'low level coordination + ATB movement' (Johnson 1996/2004, 2004, 2006) argues that the conjuncts in gapping are *v*Ps, where the subject of the first conjunct moves to Spec, TP above the coordination, and VPs undergo leftward ATB-movement after extraction of their complements (37). In the Copying approach to gapping (Repp 2005), the missing material in the second conjunct is copied from the first conjunct in Narrow Syntax (since this model is developed in the framework of Distributed Morphology, Narrow Syntax does not include any phonological features) (38).



△  
beans

△  
rice

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38. John will eat beans, and others *will eat* rice.

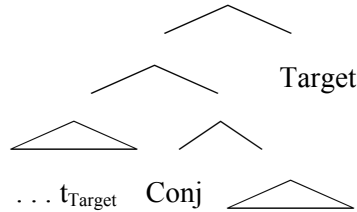
I give arguments against the last two models in Chapter 4 on Gapping and argue that gapping in Turkish is a PF-phenomenon and observe that it is a root phenomenon, i.e. only a matrix clause can be elided in gapping in Turkish (a. la. Hankamer 1971, 1979; Kornfilt 2000). One argument, among others, against both approaches is that they cannot explain why gapping cannot occur in non-matrix contexts in Turkish. On the other hand, I suggest that a Contrastive Focus head with an [+ELLIPSIS] feature can select only non-defective domains as its complement and since complement clauses and DPs are defective because they lack TenseP and/or AspP they cannot have a Contrastive Focus head with an [+ELLIPSIS] feature. Since coordination and ATB-movement are possible in Turkish, Johnson's model would predict that gapping be possible in complement clauses in Turkish. Also, under Repp's copying approach, there is no clear reason as to why a certain amount of chunk cannot be copied and inserted in the second chunk in complement clauses in Turkish.

Chapter 5 is on Right Node Raising (RNR) in Turkish. As to RNR, the ATB-movement argues that the identical element(s) undergo(es) rightward ATB-movement (38b); the PF-deletion theory argues that identical element(s) in the first conjunct is/are elided (38c);

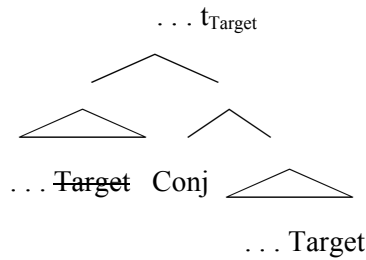
and, under the Multiple Dominance theory, there is one single occurrence of a shared element shared by verbs in both conjuncts (38d) (38b-c taken from Abels 2004):

39. a. John bought and Mary broke an expensive Chinese vase.

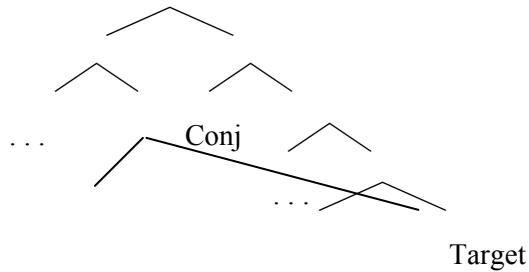
b.



c.



d.



I show a few problems with the ATB and Multiple Dominance analyses for accounting for RNR in Turkish and argue for PF-deletion. One strong piece of evidence for PF-deletion in RNR is agreement facts. The shared verb shows agreement only with the subject of the last conjunct. Neither Multiple Dominance nor ATB-movement analyses predict this:

40. Sen elma-y<sub>1</sub> , ben armud-u ye-di-**m**/n\*/\*k.  
 you apple-ACC I pear-ACC eat-PST-1S/\*2S/\*1P



‘You (ate) the apple, and I ate the pear.’

A cross-linguistic argument for PF-deletion (as well as MD analysis) is Condition C effects, which show that the shared material is in-situ:

41. \*She<sub>i</sub> said \_\_, and I happen to agree \_\_, **that Mary<sub>i</sub> needs a new car.**

(Sabbagh 2007: 361)

Another argument is island-insensitivity of RNR:

42. Josh knows [someone who buys \_\_\_\_], and Jamie knows [someone who sells \_\_\_\_],  
**pictures of Fred.**

(Rel. Clause Island)

(ibid., p. 382)

Another argument for PF-deletion analysis of RNR is sharing of sub-lexical elements. Normally, these elements cannot be targeted for movement, a problem for the ATB analysis. It’s not clear how a sub-lexical element can be shared under the MD analysis, since the shared element is merged under this analysis. However, a sub-lexical element is not merged in syntax, rather it comes as part of a lexical element from the lexicon:

43. Er sucht den Ein- und sie sucht den **Ausgang**.

he seeks the in- and she seeks the out-way

‘He is looking for the entry and she is looking for the exit.’

(Wilder 1997)

44. His theory under- and her theory **overgenerates.**

In this chapter, I also argue that although RNR is also a PF-deletion phenomenon, deletion occurs at a later stage than it does in other elliptical structures. To be more specific, deletion occurs after the syntactic structure is linearized and turned into a series of linearized blocks of lexical items, where hierarchy and its restrictions are inactive. This is due to the fact that RNR is very dynamic in contrast to the other elliptical structures in this study in that you delete an identical element/chunk in RNR whether it is a single word, subword, a phrase or a series of words (that do not form a phrase together) or phrases whereas in sluicing, fragment answers and Gapping you delete a fixed phrase, CP. Note that CP is a (functional) phrase, so it has to exist in the representation while deletion is computed and occurs. That's why sluicing, fragment answers and gapping cannot occur at the later stage where deletion in RNR occurs. Therefore, the real question is why sluicing, fragment answers and gapping cannot occur at the later stage where RNR occurs rather than why RNR cannot occur at the same stage where other deletion for other types of ellipsis occurs. In other words, the level at which RNR occurs, where syntactic representation is a linear string of lexical blocks, is the default level where ellipsis occurs. If this property of RNR is an argument for the existence of Markovian system in grammar as Juan Uriagereka (p.c.) suggests, then ellipsis at the level of Markovian representation is the default and maybe more primitive. Since the other elliptical structures require, for instance, scopal and/or semantic parallelism, they are more complicated, and therefore elision in these elliptical structures has to occur at a non-Markovian level. As to the question whether it makes grammar and its acquisition more

complex that deletion in RNR occurs at a level later than in other elliptical structures in PF,<sup>6</sup> I suggest that my model is less complex than a model where certain elliptical structures are derived by PF-deletion whereas others are derived by LF-insertion. A model where all ellipsis operations occur only in one branch (PF-side) is simpler and more ideal than a model where some ellipsis operations occur in the PF branch and others on the LF branch. In other words, I am not suggesting that the model in this thesis is the simplest/most simplistic model. The ideal would be a model where all elliptical structures occur at the same level in PF. However, the properties of these elliptical structures make it impossible.

In the big picture, this suggests that the cyclic linearization model by Fox & Pesetsky (2003, 2004) is inadequate to explain the difference between RNR and other elliptical structures in that all these elliptical structures share the same derivation without any timing difference.

Chapter 6 will be the Conclusion where I give a summary of the main findings in this thesis.

#### 4. The Big Picture in the thesis

It cannot be an accident that all these elliptical structures are PF-deletion phenomena. Rather, it is a consequence of the grammar, in that the grammar makes accessible one system (way of derivation) for elliptical structures. This could be PF-deletion or LF-insertion or copying at a certain level. At this level, I do not have any answer to the meta-

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<sup>6</sup> I am indebted to Valentine Hacquard for raising this question.

question why the grammar makes accessible only PF-deletion but not any other. It's only that the evidence I could find supports the PF-deletion. Methodologically, it would also be desirable to have all elliptical structures be the consequence of the same operation (PF-deletion) rather than the consequence of different (construction-specific) operations, which makes your theory simpler.

Therefore, all these elliptical structures differ with respect to licensing conditions on elements to be pronounced and the nature and size of the elision site. In sluicing, the remnant is a (set of) wh-phrase(s) (12a). Its correlate is generally an indefinite in the antecedent clause. In fragments, the remnants are a DP/PP etc. that answers a wh-question (12b). In both constructions only wh-phrase(s) or fragment answers are pronounced, and the rest of the sentence is missing. So, as a general assumption, the IP/TP/FinP part of a clause is deleted, though I will suggest that a higher part of a clause (i.e., CP) is elided in these constructions. Gapping requires more than one remnant (12c): English generally allows at most two remnants, but Turkish easily allows three remnants. The remnants are in a contrastive relation with their antecedents in the antecedent clause. Gapping, I suggest, is elision of CP preceded by movement of the remnants to the left periphery of a (matrix) clause. Right Node Raising (RNR) is also PF-deletion of lexical items in the first conjunct identical to lexical items in the second conjunct in a conjunction, the condition upon which is that the shared material in the second conjunct must be the rightmost element in (a matrix clause that includes) the conjunction (12d) so that it can form a separate prosodic unit from the rest of a conjunction or a structure that involves the conjunction.

### 5. What this thesis is not about

One issue (maybe among many others) that I will not investigate in this thesis is why Gapping and RNR are restricted to coordination structures. Before this, I believe, there is a more general question: What is the structure of coordination? Independently of head-finality/initiality of a language, the conjunction marker precedes the last conjunct:

- 45. a. John and Mary      (English: head-initial)
- b. Uğur ve Kaan      (Turkish: head-final)

Though Kayne (1994) makes a derivation for this cross-linguistic ordering, it is not clear what triggers the movements he suggests in coordination, as is not clear in his general theory. Therefore, I believe, we cannot handle the question why gapping and RNR are restricted to coordination structures before discovering the structure of coordination structures.

## **CHAPTER 2: PRONOUNCING THE UNPRONOUNCEABLE: SLUICING IN TURKISH**

### 1. Basic Properties of Sluicing in Turkish

In this chapter, I will analyze structures similar to (1) as sluicing structures (Ross (1969), Chung, Ladusaw and McCloskey (1995), Lasnik (1999, 2001) and Merchant (2001)). Sluicing refers to elliptical structures where all but (a) *wh*-phrase(s) in a clause

is/are unpronounced. The elided clause is identical to an antecedent clause (Merchant 2001).

1. Ahmet birin-den borç aldı, ama kim-den ~~Ahmet borç aldı~~ bilmiyorum.  
someone-ABL debt took but who-ABL debt debt took not.knowing  
'Ahmet borrowed money from someone, but I don't know from who(m).'

A general condition assumed for sluicing is given in (2) (Chung, Ladusaw, and McCloskey (1995) and Fox and Lasnik (2003)):

2. The antecedent of the *wh*-phrase(s) in sluicing has to be indefinite, where the indefinite is an expression such as *someone*, *something*, *sometime*, *some person*.
3. John called someone, but I don't know who ~~John called~~.

This generalization explains the ungrammaticality of the following examples as well as the grammaticality of (3):

4. a. \*John called you. I wonder who.  
b. \*John gave you a car for your birthday gift. I wonder what.<sup>7</sup>

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<sup>7</sup>However, N. Hornstein notes that one can say '... I wonder what year/make' in (4b). However, these *wh*-remnants modify 'a car'. Then, we have a LBE phenomenon, which is licit in sluicing. Therefore, Hornstein's data is not problematic.

There also sluicing cases where the sluiced wh-phrase does not have an overt correlate (5a) (called *sprouting* by Chung, Ladusaw and McCloskey (1995)). Finally, there are also sluicing structures where the correlate of the sluiced wh-phrase is non-indefinite but contrasting with its correlate in the antecedent clause (5b)(*contrast(ive)* sluicing, see Merchant (2001, 2008) and Ince (2005)):

5. a. Mary was flirting, but they wouldn't say with who. (CLM 1995)
- b. John ate three hamburgers, but I have no idea how many cheeseburgers ~~he~~ ate.

The following are sluicing structures in Turkish:

6. Hasan evden birşeyi almış, ama NEYİ bilmiyorum.  
H-NOM house-ABL one-thing-ACC buy-EVID-3S but what-ACC not.knowing  
'Hasan bought something; but I do not know what.'

7. Biri aradı, ama KİM bilmiyorum.  
one-NOM call-PST-3S but who-NOM not.knowing  
'Someone called; but I do not know who.'

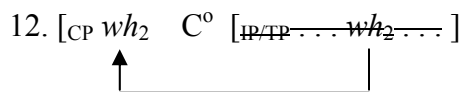
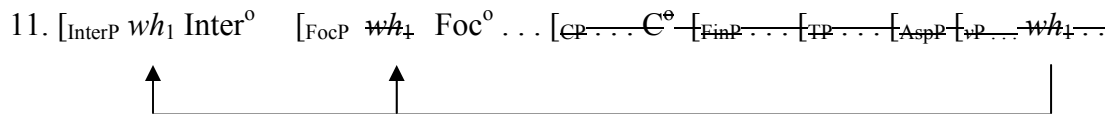
8. Ali aradı, ama NE ZAMAN/NASIL/NEDEN/NEREDEN bilmiyorum.  
A-NOM call-PST-3S but what time/how/why/where-ABL not.knowing  
'Ali called; but I do not know when/how/why/from where.'

9. Ali aradı, ama KİM-İ bilmiyorum.  
A-NOM call-PST-3S but who-ACC not.knowing  
'Ali called; but I do not know who.'

10. Orada bir araba var. Bil bakalım KİMİN.  
 there-LOC one car exist-3S know-IMP look-OPT1P who-GEN  
 ‘There is a car there. Let’s see (if you know) whose.’

As can be seen in the data above, there are sluicing structures in Turkish. The sluiced *wh*-phrase can be an argument (6-7), an implicit adjunct (8), and an implicit argument (9) and possessor (10).

Although Turkish is a *wh*-in-situ language, I argue that sluicing is derived as in English, where CP is elided after the *wh*-phrase(s) move(s) to the left periphery, following Takahashi (1994), the first study on sluicing in a *wh*-in-situ language (Ross, 1969; Lasnik, 1999, 2001; Merchant, 2001). I contend that the *wh*-phrase(s) focus-move(s) to clause initial position after which the complement of FP (i.e., CP) is elided (11). Since Ross (1969), it has been assumed that the IP/TP complement of C is elided after a *wh*-phrase moves to Spec, CP in sluicing structures (12):<sup>8</sup>



<sup>8</sup> I omit intermediary copies of *wh*<sub>1</sub> for brevity.



However, the assumption that the IP/TP complement of C is elided in sluicing raised the question why complementizers that appear in non-elided *wh*-questions do not appear in sluicing though they are outside the elision domain:

### 13. Slovene

#### *Non-sluicing*

- a. Rad bi vedel, koga da je Peter videl.  
 glad SUBJ know whom C[-wh] AUX Peter seen  
 ‘I would like to know who Peter saw.’

#### *Sluicing*

- b. Peter je videl nekoga in rad bi vedel, koga (\*da).  
 Peter AUX seen someone and glad SUBJ know who that  
 ‘Peter saw someone and I would like to know who.’

### *Irish*

#### *Sluicing*

- c. Cheannaigh sé leabhar inteacht ach níl fhios agam céacu  
 bought he book some but not.is knowledge at.me which  
 ceann (\*a / \*ar).  
 one C<sub>trace</sub> C<sub>pro</sub>  
 ‘He bought a book, but I don’t know which.’

### *(colloquial) Danish*

#### *Non-sluicing*

- d. Vi ved hvem (som) (at) der snakker med Marit.  
 we know who C C C talks with marit  
 ‘We know who is talking with Marit.’

#### *Sluicing*

- e. En eller anden snakker med Marit, men vi ved ikke  
 someone talks with Marit but we know not  
 hvem (\*som) (\*at) (\*der)

who C C C

‘Someone is talking with Marit, but we don’t know who.’

(Merchant 2001: 76-77)

However, the assumption that it’s not C but a higher functional head F that licenses elision of its complement, i.e. CP rather than IP/TP as elision site, explains the lack of the complementizers in the sluicing structures above (see also Grebenyova (2006) and Hartman (2007)<sup>9</sup> for similar proposals).

In the following lines, I investigate whether sluicing requires a linguistic antecedent. Hankamer and Sag (1976) show that Sluicing in English requires a linguistic antecedent, based on the following examples:

14. Hankamer: Someone’s just been shot.

Sag: Yeah, I wonder who.

15. [Context: Hankamer produces a gun, points it off stage and fires, whereupon a scream is heard.]

Sag: #Jesus, I wonder who.

Sag’s utterance in (15) is odd in contrast to his utterance in (14) (# shows contextual inappropriateness.). Sluicing then cannot be contextually controlled and needs a linguistic

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<sup>9</sup> Hartman (2007) claims that it’s a TopicP below FocusP that is elided in sluicing. However, since TopicP is argued to be above FocusP in Turkish (Göksel & Kerslake 2005 and references therein) and Japanese (Hiraiwa & Ishihara 2002), his analysis does not work in these languages.

antecedent. Similar examples are also odd in Turkish, which shows that sluicing requires a linguistic antecedent in this language as well:

16. Ecem: Birin-i                vur-muş-lar.  
          someone-ACC shoot-HEARSAY-PLU3  
          ‘Someone has been shot.’

Tolga: Aaa, kim-i            (acaba).  
          who-ACC (I.wonder)  
          ‘I wonder who.’

17. [Context: Tolga produces a gun, points it off stage and fires, whereupon a scream is heard.]

Ecem: #Tüh, kim(i)        (acaba).  
          wow who-(ACC) (I-wonder)  
          ‘I wonder who.’

In the remaining part of this section, I will give arguments against a possible ‘elliptical cleft’ analysis of sluicing structures in Turkish (see also Ince 2006a, 2006b, to appear), argued for Japanese –another *wh*-in-situ language- independently by Kuwabara (1997) and Kizu (1998) against Takahashi (1994) (see also Merchant (2001) for arguments against an ‘elliptical cleft’ analysis of sluicing in English). Taking into consideration the fact that Japanese is a *wh*-in-situ language, Kuwabara (1997) and Kizu (1998) questioned Takahashi’s (1994) proposal that sluicing is derived in Japanese as it is in English, arguing that there is no motivation for overt *wh*-movement in Japanese. They



olduğunu] biliyorum.

is I.know

‘I know who it is/ it is Ibrahim that Hasan borrowed money from’

The first argument against an ‘elliptical cleft’ analysis of sluicing structures in Turkish is that the pivot of a cleft structure can occur only in Nominative Case in (18c-19b-20b)<sup>11</sup>, whereas the Case of a sluiced *wh*-phrase matches in Case with its correlate (19c-20c) (see also Merchant 2001). If we had a cleft structure as the elided structure, the *wh*-phrase could not bear any Case other than Nominative. However, sluiced *wh*-phrases bear the Case their correlates do:

19. a. Hasan-Ø kim-den borç al-dı-Ø?

*-NOM who-ABL debt take-PST-3S*

‘Who did Hasan borrow money from?’

b. Hasan-in borç al-dı-ğ-ı kim-Ø/\*den?

*-GEN debt take-PST-COMP-POSS3S who-NOM/ABL*

‘Who is it that Hasan borrowed money from?’

c. A: Hasan-Ø biri-nden borç al-dı-Ø.

*-NOM someone-ABL debt take-PST-3S*

‘Hasan borrowed money from someone’

B: Kim-den?

*who-ABL*

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<sup>11</sup> As (18c) shows, the pivot bears Nominative Case in embedded clauses as well. As stated above, embedded subjects bear Genitive Case (unless non-specific). Since the pivot does not bear Genitive Case, I assume that it is not in subject/A-position. So, I take it that the Nominative Case the pivot bears is not structural, i.e. not checked in an A position, but default Case.

‘Who from?’

20. a. Ali-Ø sinema-da kim-i gör-müş-Ø?

-NOM theatre-LOC who-ACC see-HRS-3S

‘Who did Ali see in the theatre?’

b. Ali-nin sinema-da gör-dü-ğ-ü kim-Ø/\*i ?

-GEN theatre-LOC see-PST-COMP-POSS3S who-NOM/ACC

‘Who is it that Ali saw in the theater?’

c. A: Hasan-Ø sinema-da biri-ni gör-müş-Ø.

-NOM theatre-LOC someone-ACC see-HRS-3S

‘Hasan saw someone in the theatre.’

B: Kim-i?

who-ACC

‘Who(m)?’

Both examples (19a-20a) are regular *wh*-questions, with the *wh*-phrase in-situ and bearing Ablative Case and Accusative Case, respectively. However, when the *wh*-phrase becomes the pivot of a cleft structure, it cannot bear Ablative or Accusative Case; on the contrary, it can bear only Nominative Case, as in (19b-20b).

Examples (19c) and (20c), on the other hand, are sluicing examples, where the indefinite correlate *birin.den* ‘from someone’ and *birin.i* ‘someone’ of the sluiced *wh*-phrases bears Ablative Case and Accusative Case, respectively. Similarly, the sluiced *wh*-phrases also bear Ablative Case and Accusative Case, parallel to their correlates. This shows that the elision site for (19c-20c) is (19a-20a), respectively, rather than (19b-20b). So, this is a strong argument against a ‘reduced-cleft’-analysis of sluicing in Turkish.

Another difference between clefting and sluicing is that (*wh*-)adjuncts cannot be clefted in Turkish, (21a-b). Adjuncts, however, can be sluiced, as in (22a-b). This, again, shows that the elision site for the sluicing structures in (22a-b) cannot be a cleft structure.

21. a. \*Ali-nin git-tiğ-i dün / ne zaman?  
           -GEN go-COMP-POSS3S yesterday what time  
           ‘It’s yesterday that Ali went/When is that Ali went?’

b. \*Ali-nin git-tiğ-i Ankara-Ø.  
           -GEN go-COMP-POSS3S Ankara-NOM  
           ‘It’s Ankara that Ali went.’

22. a. Ali-Ø Ankara-ya git-ti-Ø, ama ne zaman bil-m-iyor-um.  
           -NOM -DAT go-PST-3S but what time know-NEG-PRES-IS  
           ‘Ali went to Ankara, but I don’t know when’

b. Ali-Ø bir yer-e git-ti-Ø, ama nere-ye bil-mi-iyor-um.  
           -NOM a place-DAT go-PST-3S but where-DAT know-NEG-PRES-IS  
           ‘Ali went somewhere, but I don’t know where’ (Ince, to appear)

Lastly, as shown in (23), multiple sluicing is grammatical in Turkish, whereas, as demonstrated in (24), multiple clefting is not, which is another argument against a ‘reduced cleft’ analysis of sluicing structures in Turkish.

23. Ahmet-Ø biri-nden birşey al-mış-Ø; ama kim-den ne  
           -NOM one-ABL thing take-HRS-3S but who-ABL what  
           bil-mi-iyor-um.  
           know-NEG-PRES-IS





2001), Merchant (2001) assume that it's IP complement of CP that is elided; however, I suggest that it's CP complement of FP that is elided in sluicing in Turkish.<sup>13</sup> As to the derivation of sluicing, I assume Merchant's (2008) [+E(LLIPSIS)] feature to license PF-deletion of the complement of F<sup>0</sup> bearing this feature. However, I assume that the featural make-up of the [+E(LLIPSIS)] feature is [~[+focus]], to be checked by a +focus head (Grebenyova (2006)). This way, it's the same head licenses deletion of a CP in both sluicing and fragment answers.

According to Merchant, the [+E(LLIPSIS)] feature instructs PF not to pronounce the complement IP/TP, complement of C<sup>0</sup>. After the movement of the wh-phrase to Spec, CP, the [+E(LLIPSIS)] feature instructs PF not to pronounce the complement IP/TP of C<sup>0</sup>. However, as said above, I suggest F<sup>0</sup> bears the relevant [+E]-feature instructing PF not to pronounce the CP complement:

25. [ $\varphi_{CP}$ ]  $\rightarrow \emptyset / \mathbf{E} \_ \_$

---

<sup>13</sup> This also accounts for non-pronunciation of an auxiliary (that normally occupies C<sup>0</sup> in interrogatives in English (ii)) in sluicing (Lasnik 1999):

- i. Speaker A: Mary will see someone.  
Speaker B: Who (\*will).
- ii. Who (will) Mary (\*will) see?

One question that is often asked with respect to sluicing in *wh*-in-situ languages is how come a *wh*-phrase can move to the left periphery although it does not need to in non-elliptical structures. The *wh*-phrase has to move overtly to the left periphery because the functional head that licenses elision of its complement has to enter a Spec-Head agreement relation with the new/contrastive information, as Lobeck (1995) argued. In modern terms, we can state this in terms of EPP. An ellipsis-licensing head bears EPP property, which requires a phrase in its Spec that carries new/contrastive information:

$$26. \dots [FP \textit{wh}_{[-\textit{focus}]} [F' F^0_{[+E]} + \textit{EPP} [CP \dots \textit{wh} \dots ]$$

Due to this reason, a *wh*-phrase has to move overtly in sluicing in *wh*-in-situ languages. In the following section, I will give evidence for movement of a sluiced *wh*-phrase and existence of syntactic structure in sluicing. There is always a one-to-one match between a functional head in the left periphery and a phrase that enters an agree/Spec-Head agreement relation with it. So, for instance, if there is Focus head there is always a phrase that is focused, i.e. enters an agree(ment) relation with it. I assume that an overt Spec-Head relation is the consequence of the EPP requirement on the functional head. The lack of overt Spec-Head configuration could be either because the functional head lacks the EPP property or because movement is covert in this case. In other words, it is a matter of whether the language faculty has *Agree*, upon which the jury is still out (see Chandra 2007). The question why a *wh*-phrase moves overtly in sluicing but not in non-elliptical questions is deceptive in that first a *wh*-phrase is not non-movable in non-elliptical structures. It can be scrambled, for instance:

27. Kim-e<sub>1</sub> Ahmet \_\_\_<sub>1</sub> kitab-ı verdi?  
 who-DAT book-ACC gave  
 ‘Who did Ahmet give the book?’

The question why a *wh*-phrase moves overtly in sluicing but not in non-elliptical questions is also deceptive in that it assumes that a *wh*-phrase moves in sluicing only to check uninterpretable *wh*-features in sluicing. However, a *wh*-question moves to check EPP feature of FP, as I suggested above. So, the question above does not raise an issue.

Another way to motivate pronunciation of *wh*-phrases in the left periphery in sluicing is suggested by Richards (2001): under the Single Output Theory where movement only occurs in Narrow Syntax, the distinction between overt vs. covert movement is a matter of which copy is pronounced. Overt movement is pronunciation of the topmost copy, whereas covert movement is pronunciation of a lower copy. Since lower copies are already included in an elision site, Richards suggests, none but the topmost copy can be pronounced in sluicing:

28. . . . *wh*<sub>1</sub> F<sup>0</sup> [~~FP . . . *wh*<sub>1</sub> . . .~~ ]

## 2. Connectivity + Movement

In the following parts, I will give evidence for the existence of syntactic structure as the elided part and also for movement of sluiced *wh*-phrases.

### 2.1. Connectivity Effects

Connectivity effects show that there is (phonologically) invisible syntactic structure in sluicing. All the following tests of connectivity are taken from Merchant (2001, 2005).

### 2.1.1 Case-Matching

The Case on a sluiced *wh*-phrase has to match with that of its indefinite correlate in the antecedent clause, as its non-elliptical version does:

29. a. A: Ahmet **biriy-le** sinema-ya git-ti.  
 someone-COMM theatre-DAT go-PST

‘Ahmet went to the theater with someone.’

B: Kim-**le**/\* $\emptyset$ /\***i**?

who-COMM/NOM/ACC

‘With whom?’

B': Ahmet kim-**le** sinemaya git-ti?

who-COMM theatre-DAT go-PST

‘Who did Ahmet go to the movie with?’

b. A: Ayşe sinema-da birin-**i** gör-müş?

theatre-LOC someone-ACC see-HEARSAY

‘Ayşe (apparently) saw someone in the theatre.’

B: Kim-**i**/\* $\emptyset$ /\***e**

who-ACC/\*NOM/\*DAT

‘Who?’

B': Ayşe sinema-da kim-**i** gör-müş.

theatre-LOC who-ACC see-HEARSAY

‘Who did Ayşe see in the theatre?’

In (29a), the indefinite correlate *biri.yle* ‘with someone’ bears Committative Case, and the sluiced *wh*-phrase *kim.le* ‘with who’ also has to bear Committative Case, other Cases

being ungrammatical; in (29b), likewise, the *wh*-phrase in the antecedent clause bears Accusative Case, and the fragment answer also has to bear Accusative Case.

### 2.1.2 Bound Pronouns

A pronoun inside a sluiced *wh*-phrase can be bound by a quantifier in the elided clause (see Lasnik 2001 for English):

30. A: [Her öğretmen]<sub>1</sub> öğrenci-ler-in-den bir-in-i daha çok sev-iyor!  
 every teacher student-PLU-POSS3-ABL one-POSS-ACC more very loving  
 ‘Every teacher loves one of his students more!’
- B: Hangi *pro*<sub>1</sub> öğrenci-sin<sup>14</sup>-i?  
 which student-POSS3-ACC  
 ‘Which student (of his)?’<sup>15</sup>

---

<sup>14</sup> The possessive agreement on the possessee shows that there is a possessor there (i.e. in Spec position) with which the possessee agrees. For different person values, you see different agreement on the possessee:

- i. öğrenci-m /n /si /miz /niz /leri  
 student-poss1s/poss2s/poss3s/poss1p/poss2p/poss3p  
 ‘my/your/his/our/their student’

<sup>15</sup> A functional answer as well as a specific answer is possible to B’s question in (30):

- i. a. En akıllısını!  
 ‘the smartest one!’
- b. Kaan-ı!  
 -acc  
 ‘Kaan!’

To avoid **telescoping effects**<sup>16</sup> (see Roberts (1987), Belvadi (1989), Fox (2000)), let's try it with a quantifier like *almost every teacher*. We still get the bound variable reading of *pro* within the sluiced *wh*-phrase:

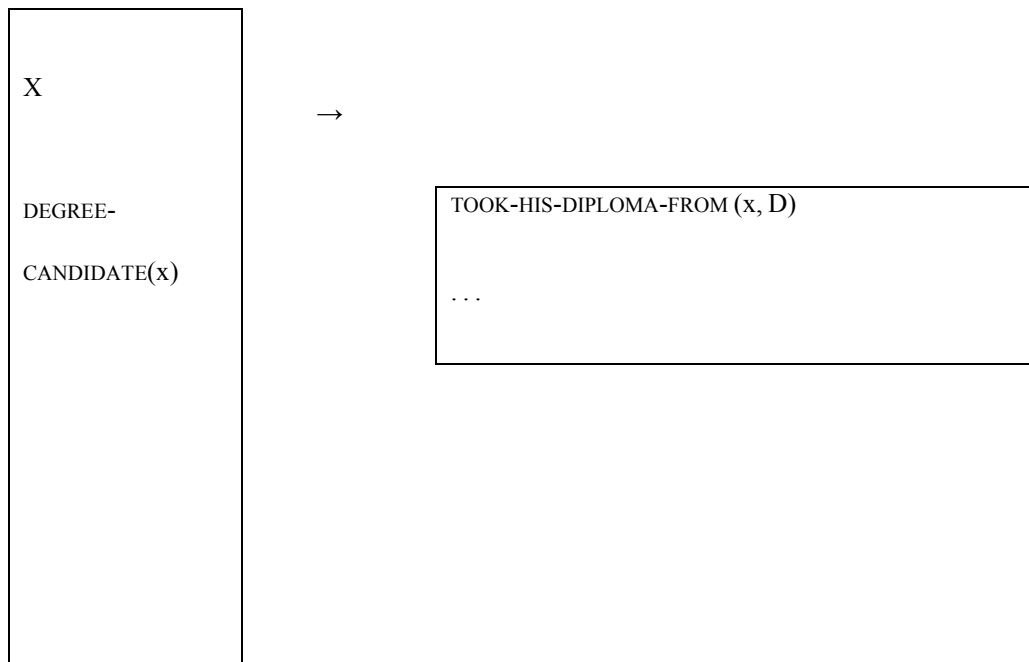
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<sup>16</sup> Telescoping refers to cases where a pronominal element gets a bound variable reading from a quantifier although the quantifier does not c-command it (Fox (2000: 56) attributes (ib) to Roberts (1987). However, I couldn't find any such example in that work.):

- ( i )
- a. Each degree candidate walked to the stage. He took his diploma from the Dean and returned to his seat. (Roberts 1987: 38)
  - b. Every graduating student walked up to the stage. He shook the dean's hand and returned to his seat. (Roberts 1987)
  - c. Every story pleases these children. If it is about animals, they are excited. If it is about witches, they are enchanted, and if it is about humans, they never want it to stop. (Belvadi 1989)
  - d. Each student<sub>i</sub> in the syntax class was accused of cheating on the exam and he<sub>i</sub> was reprimanded by the dean. (Fodor & Sag 1982)
  - e. Each candidate<sub>i</sub> for the space mission meets all our requirements. He<sub>i</sub> has a Ph.D. in Astrophysics and extensive prior flight experience. (Roberts 1987)

Under Roberts' (1989) analysis, (ia) undergoes an accommodation process, in consequence of which the second clause in (ia) is represented as a tripartite structure, where the restrictor DEGREE-CANDIDATE is reconstructed from the discourse:

f.



However, Poesio & Zucchi (1992) note that this does not account for the ungrammaticality of the following:

- g. a. \*John likes every dog<sub>i</sub> and Sam feeds it<sub>i</sub>. (Hornstein 1984)
- b. \*If every cat<sub>i</sub> purrs, it<sub>i</sub> is happy.

Poesio & Zucchi (1992: 349) propose the following condition for the reconstruction of the restrictor:

h. Licensing Condition for Restrictor Reconstruction

Given a sentence S, reconstruction of a restrictor for S is possible only if the discourse makes it clear that S is to be interpreted relative to a restrictor.

There are two ways for the discourse to make it clear that S is to be interpreted relative to a restrictor, they continue. One way is pointed out by Roberts (1989):

31. A: [Hemen hemen her öğretmen]<sub>2</sub> öğrenci-ler-in-den  
 right.away right.away every teacher student-PLU-POSS-ABL ACC  
 bir-in-i daha çok sever!  
 one-POSS-ACC more very love-AORIST  
 ‘Almost every teacher loves one of his students more!’
- B: Hangi *pro*<sub>2</sub> öğrenci-sin-i?  
 which student-3SPOSS-ACC  
 ‘Which student of his?’

- 
- i. The discourse can make it clear that a sentence S is to be interpreted relative to a restrictor by explicitly indicating via syntactic means the presence of an operator which takes a restrictor and a nuclear scope.

An *if-then* structure, for example, is a clear indication of a restrictor, as in (ic). The second way is as follows:

- j. The discourse can make it clear that a sentence S is to be interpreted relative to a restrictor by providing contextual information which links S to a restrictor.

Under a context (viii), (vii) becomes ‘marginally acceptable’, according to Poesio & Zucchi:

- k. ??Every dog<sub>i</sub> came in. It<sub>i</sub> lay down under the table.
- l. I went to the circus last night. They had a number involving dogs that went like this: The circus performers put a table on some supports. Then, every dog came in. It lay down under the table, stood on its back paws, and lifted the table with its front paws.

However, it is not clear why (iia-b) are bad under the Poesio & Zucchi analysis. I am not aware of any analysis as to why QPs modified by *almost* do not allow cross-sentential binding.



The fact that a null possessive pronoun is bound by a quantifier like *almost every teacher* shows that at some stage of the derivation the null pronoun is c-commanded and bound by the relevant pronoun.

## 2.2. Evidence for Movement in Sluicing

### 2.2.1 Postposition Pied-Piping

Certain postpositions cannot be stranded when their complement is scrambled to a clause-initial position:

32. a. Ahmet Ayşe için bu kitab-1 al-mış.  
for this book-ACC take-HEARSAY  
'Ahmet bought this book for Ayşe.'
- b. [Ayşe için]<sub>1</sub> Ahmet *t*<sub>1</sub> bu kitab-1 al-mış.  
for this book-ACC take-HEARSAY  
'For Ayşe, Ahmet bought this book.'
- c. \*Ayşe<sub>2</sub> Ahmet [*t*<sub>2</sub> için]<sub>PP</sub> bu kitab-1 al-mış.  
for this book-ACC take-HEARSAY  
'\*Ayşe, Ahmet bought this book for.'

Likewise, the same postposition has to be pied-piped in sluicing:

33. A: Ahmet bu kitab-1 birisi için al-mış!  
this book-ACC one for take-HEARSAY  
'Ahmet bought this book for someone!'
- B: Kim \*(için)?  
who for

‘\*(For) who?’

Certain postpositions can be stranded, and their pronominal complement is scrambled to a clause-initial position:

34. a. Ayşe sen-in hakk-ın-da çok şey duy-muş.  
you-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘Ayşe heard a lot about you.’
- b. [Sen-in hakk-ın-da]<sub>1</sub> , Ayşe t<sub>1</sub> çok şey duy-muş.  
you-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘About you, Ayşe heard a lot.’
- c. ?Sen-in<sub>2</sub> , Ayşe [t<sub>2</sub> hakk-ın-da ] çok şey duy-muş.  
you-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘You, Ayşe heard a lot about.’

Likewise, the same postposition can be stranded in sluicing:

35. A: Ayşe birisi hakk-ın-da çok şey duy-muş?  
one right-2SPOSS-LOC very thing hear-HEARSAY  
‘Ayşe hear a lot about someone!’
- B: Kim (hakk-ın-da ) ?  
who right-2SPOSS-LOC  
‘(About) who?’

### 2.3. Interim conclusion

In this section, we have seen evidence for the existence of syntactic structure in sluicing and movement of the *wh*-phrase to the left periphery.

### 3. Sluicing and Islands

In this section, we will see that sluicing is island-insensitive in Turkish. Before this, however, I will show what structures are islands in Turkish.

#### 3.1. Islands in Turkish

In this section, we will look at what structures are islands in Turkish. For this, I will look at scrambling out of Relative Clauses and a variety of adjunct clauses.

To check the grammaticality of the data below, I asked seven native speakers of Turkish to give each case a point between 1-5, where 1 equals complete unacceptability and 5 equals complete acceptability. In chapter 1, we have seen a whole list of word order variations achieved by scrambling out of non-island structures. Those examples are quite prolific in Turkish and grammatical.

##### 3.1.1 Relative Clauses

###### *Subject Relative Clauses*<sup>17</sup>

36. a. Hasan [**ne-yi** gezdiren] çocukla konuştu?

what-ACC walk-SR child-COMM talked

‘What is it that Hasan talked to the child who walked it?’

b. **Ne-yi**<sub>i</sub> Hasan [\_\_\_\_<sub>i</sub> gezdiren] çocukla konuştu?

what-ACC walk-SR child-COMM talked

‘What is it that Hasan talked to the child who walked it?’

---

<sup>17</sup> ‘Subject relative clause’ refers to RC structures where the head of the RC is its subject; and, ‘Non-Subject relative clause’ refers to RC structures where the head of the RC is not its subject but its (in)direct object.

37. a. Ali [**kim-e** bakan] adamı arıyor?  
 who-DAT look.after-SR man-ACC looking.for  
 ‘Who is it that Ali is looking for the man who takes care of him?’
- b. **Kim-e**<sub>1</sub> Ali [\_\_\_\_<sub>1</sub> bakan ] adam-ı arıyor?  
 who-DAT look.after-SR man-ACC looking.for  
 ‘Who is it that Ali is looking for the man who takes care of him?’

### *Non-Subject Relative Clause*

38. a. Ahmet [**kim-in** baktığı ] köpeğ-i tedavi ediyor?  
 who-gen look.after-NSR dog-ACC treatment doing  
 ‘Who is it that Ahmet is treating the dog that he takes care of?’
- b. **Kim-in**<sub>1</sub> Ahmet [ \_\_\_\_<sub>1</sub> baktığı ] köpeği tedavi ediyor?  
 who-gen look.after-NSR dog-ACC treatment doing  
 ‘Who is it that Ahmet is treating the dog that he takes care of?’
39. a. Ahmet [**ne-yin** ısırıldığı ] çocuğu tedavi ediyor?  
 what-gen bite-NSR child-ACC treatment doing  
 ‘What is it that Ahmet is treating the child that it bit?’
- b. **Ne-yin**<sub>1</sub> Ahmet [ \_\_\_\_<sub>1</sub> ısırıldığı ] çocuğu tedavi ediyor?  
 what-gen bite-NSR child-ACC treatment doing  
 ‘What is it that Ahmet is treating the child that it bit?’

### 3.1.2 Adjunct Clauses

#### Finite Adjunct Clauses

Reason

*Diye*

40. a. Hasan [**kim-i** gör-eceğ-iz diye] bir ekmek daha almış?  
who-ACC will.see.1P for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will see him?’
- b. **Kim-i**<sub>1</sub> Hasan [\_\_\_\_<sub>1</sub> gör-eceğ-iz diye] bir ekmek daha almış?  
who-ACC will.see.1P for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will see him?’
41. a. Hasan [**kim-e** bak-acağ-ız diye] bir ekmek daha almış?  
who-DAT will.look-after.1P for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will take care of him?’
- b. **Kim-e**<sub>1</sub> Hasan [\_\_\_\_<sub>1</sub> bak-acağ-ız diye] bir ekmek daha almış?  
who-DAT will.look-after.1P for one bread more bought?  
‘Who is it that Hasan bought another loaf of bread because we will take care of him?’

*için*

42. a. Hasan [**kim-i** gör-eceğ-imiz için] bir ekmek daha almış?  
who-ACC will.see.1P for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will see him?’
- b. **Kim-i**<sub>1</sub> Hasan [\_\_\_\_<sub>1</sub> gör-eceğ-imiz için] bir ekmek daha almış?  
who-ACC will.see.1P for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will see him?’

43. a. Hasan [**kim-e** bak-acağ-ımız için] bir ekmek daha almış?  
 who-DAT will.look-after.1P for one bread more bought  
 ‘Who is it that Hasan bought another loaf of bread because we will take care of him?’
- b. **Kim-e**<sub>1</sub> Hasan [ \_\_\_\_<sub>1</sub> bakacağımız için] bir ekmek daha almış?  
 who-DAT will.look-after.1P for one bread more bought  
 ‘Who is it that Hasan bought another loaf of bread because we will take care of him?’

### Temporal

*DIğ + Agr + dA*

44. a. Ali [**kim-e** baktığında ] uyuyakalmış?  
 who-DAT looking-after.while happened.to.fall.asleep  
 ‘Who is it that Ali fell asleep while he was looking after him/her?’
- b. **Kim-e**<sub>1</sub> Ali [ \_\_\_\_<sub>1</sub> bak-tığ-in-da ] uyuyakalmış?  
 who-DAT looking-after.while happened.to.fall.asleep  
 ‘Who is it that Ali fell asleep while he was looking after him/her?’
45. a. Ali [**ne-yi** izlediğinde ] uyuyakalmış?  
 what-ACC watching.while happened.to.fall.asleep  
 ‘What is it that Ali fell asleep while he was watching it?’
- b. **Ne-yi**<sub>1</sub> Ali [ \_\_\_\_<sub>1</sub> izlediğinde ] uyuyakalmış?  
 what-ACC watching.while happened.to.fall.asleep  
 ‘What is it that Ali fell asleep while he was watching it?’

### Non-Finite Adjunct Adjunct Clauses

Temporal

*-kEn*

46. a. Ali [**kim-e** bakarken ] uyuyakalmış?  
who-DAT looking-after.while happened.to.fall.asleep  
‘Who is it that Ali fell asleep while he was looking after him/her?’
- b. **Kim-e**<sub>1</sub> Ali [ \_\_\_\_<sub>1</sub> bakarken] uyuyakalmış?  
who-DAT looking-at.while happened.to.fall.asleep  
‘Who is it that Ali fell asleep while he was looking at him/her?’

47. a. Ali [**ne-yi** izlerken] uyuyakalmış?  
what-ACC while.watching happened.to.fall.asleep  
‘What is it that Ali fell asleep while watching it?’
- b. **Ne-yi**<sub>1</sub> Ali [ \_\_\_\_<sub>1</sub> izlerken] uyuyakalmış?  
what-ACC while.watching happened.to.fall.asleep  
‘What is it that Ali happened to fall asleep while watching it?’

*(y)Inca*

48. a. Ali [**kim-e** bakınca ] uyuyakalmış?  
who-DAT look-after.after happened.to.fall.asleep  
‘Who is it that Ali fell asleep after he looked after him?’
- b.\* **Kim-e**<sub>1</sub> Ali [ \_\_\_\_<sub>1</sub> bakınca ] uyuyakalmış?  
who-DAT look-after.after happened.to.fall.asleep  
‘Who is it that Ali fell asleep after he looked after him?’

49. a. Ali [**ne-yi** izleyince ] uyuyakalmış?

what-ACC watch.after happened.to.fall.asleep

‘What is it that Ali fell asleep after he watched it?’

b. **Ne-yi**<sub>1</sub> Ali [ \_\_\_\_<sub>1</sub> izleyince ] uyuyakalmış?

what-ACC watch.after happened.to.fall.asleep

‘What is it that Ali fell asleep after he watched it?’

### *Dikça*

50. a. Siz [ **kim-i** gördükçe ] daha da sinirlendiniz?

you who-ACC saw.more more also got.upset

‘Who is it that the more you saw her the more you got upset?’

b. **Kim-i**<sub>1</sub> siz [ \_\_\_\_<sub>1</sub> gördükçe ] daha da sinirlendiniz?

who-ACC you saw.more more also got.upset

‘Who is it that the more you saw her the more you got upset?’

51. a. Siz [ **kim-den** azar işittikçe ] daha da sinirlendiniz?

you who-ABL rebuke hear.more more also got.upset

‘Who is it that the more you heard rebuke from the more you got upset?’

b. **Kim-den**<sub>1</sub> siz [ \_\_\_\_<sub>1</sub> azar işittikçe ] daha da sinirlendiniz?

who-ABL you rebuke hear.more more also got.upset

‘Who is it that the more you heard rebuke from the more you got upset?’

### 3.1.3 If-Clauses

52. a. Uğur [Tolga kim-den borç al-ır-sa ] çok üzül-ecek.

who-ABL debt take-AOR-COND very get.sad-FUT

‘Who is it that Uğur will be very sad if Tolga borrows money from him?’



b. **Kim-den**<sub>1</sub> Uğur [Tolga \_\_\_<sub>1</sub> borç al-ır-sa ] çok üzül-ecek.  
 who-ABL debt take-AOR-COND very get.sad-FUT  
 ‘Who is it that Uğur will be very sad if Tolga borrows money from him?’

53. a. Ecem [Kaan kim-i ara-dı-y-sa ] çok kırıl-acak?  
 who-ACC call-PST-COP-COND very get.heart.broken-FUT  
 ‘Who is it that Ecem will be very heart-broken if Kaan called him?’

b. **Kim-i**<sub>1</sub> Ecem [Kaan \_\_\_<sub>1</sub> ara-dı-y-sa ] çok kırıl-acak?  
 who-ACC call-PST-COP-COND very get.heart.broken-FUT  
 ‘Who is it that Ecem will be very heart-broken if Kaan called him?’

### 3.1.4 Results

Below is the table which shows the average grade for each island:

54.

Islands				
Relative Clause		Adjunct Clause		
Subject	Non-Subject	Finite		If-Clauses
		Reason	Temporal	

			Diye	İçin	DIğ + Agr + dA	- kEn	- (y)IncA	-DIkçA	1.2
<b>Average:</b>	1	1	1.7	1.8	2.3	2.1	2.3	2.5	

I interpret the average values of unacceptability as indicating ungrammaticality with respect to these structures. So, these are also the clausal structures which we need to look at with respect to island-(in)sensitivity of sluicing in Turkish.

Notice that all subjects found scrambling out of non-islands cases below fully grammatical:

55. a. Hasan-la<sub>1</sub> , Ahmet \_\_\_<sub>1</sub> konuştu.

-COMM talked

‘With Hasan, Ahmet talked.’

b. Hasan-la<sub>2</sub> , Meral [Ahmet-in \_\_\_<sub>2</sub> konuştuğunu] biliyor.

-COMM -GEN talked knows

‘With Hasan, Meral knows that Ahmet talked.’

### 3.2. Sluicing out of Islands

In the following, we will see that sluicing is island-insensitive in Turkish contra Ince (2006); in other words, a *wh*-phrase can be extracted out of an island in sluicing, and the resulting structure is acceptable/grammatical. For this, islands tested with respect to scrambling in the previous section were used in sluicing-out-of-islands cases.

#### 3.2.1 Relative Clauses

##### Subject Relative Clauses

56. A: Hasan [**bi(r) hayvan-ı** gezdir-en] bi(r) çocuk-la konuştu.<sup>18</sup>  
one animal-ACC walk-SR one child-COMM talked  
'Hasan talked to a child who walked an animal.'

B: Hangi hayvan-ı ?  
which animal-ACC  
'Which animal?'

57. A: Ali [**kızkardeş-ler-in-den bir-in-e** bak-an] bi(r) adam-ı  
sister-PLU-3SPOSS-ABL one-POSS-DAT look.after-SR one man-ACC  
arıyor.  
looking.for  
'Ali is looking for a man who takes care of one of his sisters.'

B: Hangi kızkardeş-in-e ?  
which sister-3SPOSS-DAT  
'Which sister of his?'

#### Non-Subject Relative Clause

58. A: Ahmet [**arkadaş-lar-ın-dan bir-in-in** bak-tığı] bi(r) köpeğ-i  
friend-PLU-3SPOSS-ABL one-POSS-GEN look.after-NSR one dog-ACC  
tedavi ediyor.  
treatment doing  
'Ahmet is treating a dog that one of his friends takes care of.'

B: Hangi arkadaş-ın-in ?  
which friend-3SPOSS-GEN  
'Which friend of his?'

---

<sup>18</sup> To avoid presuppositionality effects, I keep the head of RCs indefinite. I am indebted to Valentine Hacquard for pointing this out to me.

59. A: Ahmet [**bi(r) hayvan-ın** ısır-dığı] bi(r) çocuğ-u tedavi ediyor.  
one animal-GEN bite-NSR one child-ACC treatment doing

‘Ahmet is treating the child that some animal bit.’

B: Hangi hayvan-ın ?

which animal-GEN

‘Which animal?’

### 3.2.2 Adjunct Clauses

#### Finite Adjunct Clauses

##### Reason

##### *Diye*

60. A: Hasan [**eski arkadaş-lar-dan bir-in-i** ziyaret edeceğiz  
old friend-PLU-DAT one-POSS-ACC visit will.do

diye] tatlı almış.

for desert bought

‘Hasan bought desert because we will visit an old friend.’

B: Hangi eski arkadaş-ın-ı?

which old friend-POSS-ACC

‘Which old friend of his?’

61. A: Hasan [**yaşlı komşu-lar-dan bir-in-e** bakacağız  
old friend-PLU-ABL one-POSS-DAT will.look-after

diye] film almış.

for movie got

‘Hasan got a movie because we will take care of one of the old neighbors.’

B: Hangi (yaşlı) komşu-ya?  
which old neighbor-DAT  
'Which (old) neighbor?'

*için*

62. A: Hasan [**akraba-lar-dan bir-in-i** ziyaret edeceğimiz  
relative-PLU-DAT one-POSS-ACC visit will.do  
için] tatlı almış.  
for desert bought  
'Hasan bought desert because we will visit one of the relatives.'

B: Hangi akraba-yı?  
which relative-ACC  
'Which relative?'

63. A: Hasan [**yaşlı komşu-lar-dan bir-in-e** bakacağımız  
old friend-PLU-ABL one-POSS-DAT will.look-after  
için] film almış.  
for movie got  
'Hasan got a movie because we will take care of one of the old neighbors.'

B: Hangi (yaşlı) komşu-ya?  
which old neighbor-DAT  
'Which (old) neighbor?'

Temporal

*DIğ + Agr + dA*

64. A: Ali [**resim-ler-in** **bir-in-e** baktığında] hüzünlendi.  
picture-PLU-GEN one-POSS-DAT looked-at.when felt.emotional  
'Ali felt emotional when he looked at one of the pictures.'

B: Hangi resm-e?  
which picture-DAT  
'Which picture?'

65. A: Ali [**bir dizi film-i** izlediğinde] hüzünlendi?  
one series movie-ACC watch.when felt.emotional  
'Ali felt emotional when he watched a TV show.'

B: Hangi dizi film-i?  
which series movie-ACC  
'Which TV show?'

### Non-Finite Adjunct Clauses

#### Temporal

*-kEn*

66. A: Ali [**çocuk-lar-dan bir-in-e** bakarken] uyuyakalmış?  
child-PLU-ABL one-POSS-DAT looking.after.while  
happened.to.fall.asleep  
'Ali fell asleep while he was looking after one of the kids.'

B: Hangi çocuğ-a?  
which kid-DAT  
'Which kid?'

67. A: Ali [**bir program-ı** izlerken] uyuyakalmış?

one program-ACC while.watching happened.to.fall.asleep  
'Ali happened to fall asleep while watching a program.'

B: Hangi program-ı?  
which program-ACC  
'Which program?'

*(y)InçA*

68. A: Ali [**resim-ler-in bir-in-e** bakınca] duygulandı?  
picture-PLU-GEN one-POSS-DAT look-at.when felt.emotional  
'Ali felt emotional when he looked at one of the pictures.'

B: Hangi resm--e?  
which picture-DAT  
'Which picture?'

69. A: Ali [**bir dizi film-i** izleyince] duygulandı?  
one series movie-ACC watch.when felt.emotional  
'Ali felt emotional when he watched a TV show.'

B: Hangi dizi film-i?  
which series movie-ACC  
'Which TV show?'

*DikçA*

70. A: Ayşe [**arkadaş-lar-dan bir-in-i** gördükçe] daha da sinirlendi.  
friend-PLU-ABL one-POSS-ACC saw.more more also got.upset  
'The more Ayşe saw one of the friends, the more she got upset.'

B: Hangi arkadaş-ı?  
which friend-ACC

‘Which friend?’

71. A: Ayşe [**hoca-lar-ın**      **bir-in-den**      azar      işittikçe] daha da  
teacher-PLU-GEN one-POSS-ABL rebuke hear.more more also  
sinirlendi.

got.upset

‘The more Ayşe heard rebuke from one of the teachers, the more she got  
upset.’

B: Hangi hoca-dan?

which teacher-ABL

‘From which manager?’

### 3.2.3 If-Clauses

72. A: Uğur [Tolga biri-nden      borç al-ır-sa      ] çok      üzül-ecek.  
one-ABL      debt take-AOR-COND      very      get.sad-FUT

‘Uğur will be very sad if Tolga borrows money from someone.’

B: Kim-den?

who-ABL

‘Who from?’

73. A: Ecem [Kaan birin-i      ara-dı-y-sa      ] çok kırıl-acak?  
one-ACC      call-PST-COP-COND      very      get.heart.broken-FUT

‘Ecem will be very heart-broken if Kaan called someone.’

B: Kim-i?

Who-ACC

‘Who?’



### 3.2.4 Results and Discussion

In result, Turkish speakers I consulted did not find the sluicing examples above ungrammatical, just as they did not find sluicing out of non-islands unacceptable:

74. A: Ahmet birin-den borç aldı.<sup>19</sup>  
          someone-ABL debt took  
          ‘Ahmet borrowed money from someone.’  
B: Kim-den?  
          who-ABL  
          ‘Who from?’

So, sluicing ameliorates island violations in Turkish, just as sluicing in English is reported to ameliorate island violations by Ross (1969) and to be island-insensitive by Lasnik (2001a) and Merchant (2001). Ross marked sluicing out of islands with ‘??’, meaning that those cases are not perfect. Ross, thus, remarks that imperfectness of sluicing out of islands supports the deletion account, stating that if there were not deletion the structures would be perfect. Lasnik (2001a) and Merchant (2001) report that Ross’ data are perfect for them:

75. a. The Complex NP Constraint

(??) I believe the claim that he bit someone, but they don’t know who.

b. The Sentential Subject Constraint

(??) That he’ll hire someone is possible, but I won’t divulge who.

(Ross 1969)

---

<sup>19</sup> All subjects gave B’s answer in (74) 5 out of 5 with respect to its grammaticality.

c. Left-Branch Extraction

Your brother is a smart doctor, but it's not clear how smart.

(Merchant 2001: 167)

d. COMP-Trace Effects

Sally asked if somebody was going to fail Syntax One, but I can't remember who [~~Sally asked if *t* was going to fail Syntax One~~]

(Chung *et al.* 1995: (86a))

e. Derived Position Islands

A biography of one of the Marx brothers {is going to be published/will appear} this year – guess which!

(Merchant 2001: 185)

f. Coordinate Structure Constraint I: the Conjunct Condition

Irv and someone were dancing together, but I don't know who.

(Ross 1969)

g. Relative Clauses

(??) She kissed a man who bit one of my friends, but Tom doesn't realize which one of my friends.

(Ross 1969)

They hired someone who speaks a Balkan language – guess which!

(Merchant 2001: 209)

h. Adjuncts and Sentential Subjects

If Ben talks to someone, Abby will be mad, but I don't remember who.

(*ibid.*, p. 221)

[<sub>CP</sub> That Maxwell killed the judge] was proven, but it's still not clear with what.<sup>20</sup>

(*ibid.*, p. 221-2)

i. Coordinate Structure Constraint II: Extraction out of a Conjunct

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<sup>20</sup> This is a sprouting case, which is reported to be island-sensitive in any case by CLM (1995) and clause-bound by Howard Lasnik (p.c.).

Bob ate dinner and saw a movie that night, but he didn't say which.

(ibid., p. 223)

Merchant (2001), on the other hand, reported that certain islands are PF-islands (Left-Branch extractions, COMP-trace effects, Derived position islands, Coordinate structure constraint 1: the conjunct condition) and others are LF-islands (Relative clauses, Adjuncts and sentential subjects, Coordinate structure constraint II: extraction out of a conjunct) and that only PF-islands can be ameliorated by PF-deletion.<sup>21</sup> He took Relative Clauses as LF-islands and claimed that although sluicing out of RCs seems to be grammatical it's actually the clause inside the RC that is the resolution space, i.e. what is interpreted as missing. So, the elision site for (75g) is as follows:

76. Guess which<sub>1</sub> [she speaks t<sub>1</sub>]!

Lasnik (2001a), however, showed that RCs are also PF-islands by proving that a pronominal within the correlate of a sluiced *wh*-phrase inside a RC is bound by a

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<sup>21</sup> A third category of islands is *selective* ('weak') islands, which seem not to license sluicing:

- (i) a. \*Nigel never hunts, but I don't remember what.
- b. \*Noone drank, but I can't say which kind of wine.
- c. The new chef refused to bake, but we don't recall what.

(Merchant 2001: 226)

quantifier in the matrix clause, therefore, it functions as a bound variable and that the sluiced *wh*-phrase also gets a bound variable reading due to a pronominal inside it:

77. . . . QP<sub>1</sub> . . . [ISLAND . . . [DP . . . *pronominal*<sub>1</sub> ] . . . ANTECEDENT  
 . . . [WHIP *wh* . . . *pronominal*<sub>1</sub> ]<sub>2</sub> . . . QP<sub>1</sub> . . . [ISLAND . . . *t*<sub>2</sub> . . . SLUICED STRUCTURE

78. Every linguist<sub>i</sub> met a philosopher who criticized some of his<sub>i</sub> work, but I'm not sure how much of his<sub>i</sub> work [~~every linguist<sub>i</sub> met a philosopher who criticized t~~]

79. Every linguist<sub>i</sub> met a philosopher who criticized some of his<sub>i</sub> work. Tell me how much of his<sub>i</sub> work [~~every linguist<sub>i</sub> met a philosopher who criticized t~~]

(Lasnik 2001a: 16)

In the following part, I will give a brief history of encoding island violations and of how sluicing ameliorates island violations:

Chomsky (1972) stated that when an element is extracted out of an island, a \* is assigned to that island. Kitahara (1999: 79) raised a conceptual objection to this kind of technology, stating that \*-marking is a violation of the Inclusiveness Condition (Chomsky 1995):<sup>22</sup>

80. . . . a \*-feature, which is not a lexical feature – since it appears nowhere in the lexicon - . . . enters into a derivation as the output of certain movements. . . . this assumption violates the Inclusiveness Condition.<sup>23</sup>

<sup>22</sup> Lasnik (2001a) notes that it's first Lakoff (1972) which raised an objection to Chomsky's \*-marking.

<sup>23</sup> As quoted in Lasnik (2001: 13).

Merchant (2008), on the other hand, raises an empirical objection to Chomsky's (1972) technology:

His first remark is that VP-ellipsis cases where a wh-phrase is extracted out of an island (81) are ungrammatical in contrast to grammaticality of sluicing out of islands (82), as also remarked in Lasnik (2001a):

81. \*They want to hire someone who speaks a Balkan language, but I don't know which they do [<sub>VP</sub> ~~want to hire someone who speaks t~~].

82. They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [<sub>IP</sub> ~~they want to hire someone who speaks t~~].

To explain this difference,<sup>24</sup> Merchant contends *MaxElide*:

83. MaxElide [DEFINITION]

Let XP be an elided constituent containing an A'-trace

Let YP be a possible target for deletion

YP must not properly contain XP ( $XP \not\subset YP$ )

---

<sup>24</sup> He notes that one cannot simply suggest a ban on wh-extraction out of VP-ellipsis sites (as Sag (1976) and Williams (1977) did) because in certain contexts that movement is licit:

- i. I know what I LIKE and what I DON'T.
- ii. I know which books she READ, and which she DIDN'T.

So, ex. (81) is ungrammatical because it violates MaxElide since the elided VP contains a wh-trace/copy and is properly contained in the IP (shown in (82)) that can also be elided. So far so good for the \*-as-a-feature-of-island-nodes. However, in case where the island occurs inside an elided VP and MaxElide is also satisfied by contrasting material external to VP and internal to IP (as in ex. i-ii in footnote 24), \*-as-a-feature-of-island-nodes would predict that the structure be licit, ameliorating the island violation. However, that's not the case:

84. a. *Relative Clause island*:

\* Abby DOES want to hire someone who speaks {GREEK/a certain Balkan language}, but I don't remember what kind of language she DOESN'T.

b. *Left-branch* (attributive adjective case):

\* ABBY bought a big car, but I don't know how big BEN did.

(Merchant 2008)

Therefore, Merchant (2008) suggests that elements crossing an island must be \*-marked rather than the island crossed, which I assume in this study. However, Merchant's point regarding \*-marking of elements that cross an island rather than \*-marking of islands they cross is also problematic from Kitahara's perspective since a \*-feature is again introduced in the derivation although it does not come from the lexicon, as Lasnik (2001a) points out.

Due to the problems of both Chomsky (1972) and Merchant (2008), I will follow Lasnik's (2001: 13 (footnote 9)) suggestion of '✓-loss' instead of '\*-marking' for

encoding ‘island violations’ and assume that a phrase loses its ✓ after it crosses an island, which makes it defective:

85. . . .suppose that the island violation marker is reconstrued in the following way: Instead of \* being added, imagine that every phrase is marked with ✓ ‘at birth’. Then, when an island violation occurs, the ✓ is erased. The surface (or PF) violation would then be signaled by lack of ✓ rather than by \*. In [sluicing], the target would be lacking ✓ in some position or positions where the antecedent has ✓.’ (Lasnik 2001: 13 (footnote 9))

We need to keep in mind that for Lasnik (2001a) it was an island that loses its ✓ when an element is extracted out of it.<sup>25</sup> So, certain phrases (or their heads) that we define as islands initially have ✓. When a phrase is extracted out of an island –i.e. crosses its edge, the relevant island loses ✓. I take ✓ as a property:<sup>26</sup>

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<sup>25</sup> In the following sentence, the extraction of the wh-phrase from the Relative Clause causes the RC to lose its ✓ for Lasnik. Figuratively speaking, the island says ‘Look, a phrase (or head) has been extracted out of me, which is illicit’:

- i. Who<sub>1</sub> did you talk to [<sub>✓</sub> the boy who called \_\_\_\_<sub>1</sub>]?

<sup>26</sup> Norbert Hornstein asks how an island knows that a phrase is extracted out of it, in consequence of which it loses its ✓. Since it’s the moving element that loses its ✓, it’s again the moving element that (needs to) know(s) that it is crossing an island. However, to be able to answer this question, we need to know why an island is the way it is: why any element cannot be extracted out of these structures. We do not have a satisfactory theory of islands yet to answer this question.

86. a. . . . [<sub>island</sub><sup>✓</sup> [YP . . . XP . . . ] . . . ] BEFORE MOVEMENT  
. . . [ XP . . . [~~XP~~ . . . [<sub>island</sub><sup>✓</sup> [YP ~~XP~~ . . . ~~XP~~ . . . ] . . . ] AFTER MOVEMENT

Following Merchant's evidence from sluicing vs. VP-deletion, I assume that it's the phrase that is extracted out of island that loses its ✓. Each phrase in a derivation initially has the ✓ property (more to be said below) whether it is inside an island or not.<sup>27</sup> It keeps it unless it is extracted out of island. So, a phrase lacking ✓ says: "I've been extracted out of an island". Unlike what Norbert Hornstein thinks (p.c.), it need not be 'until rather late in the derivation' for a phrase to lose ✓ in case it crosses an island. It can lose ✓ right after it crosses an island, i.e. when it is extracted out of a CP inside a DP (CNPC) or out of a clause adjoined to another clause (adjunct islands). The loss of ✓ is not a violation of the Condition of Inclusiveness (as defined in (88)) since this condition bars only introduction of new elements but not loss of any element/feature/property:

87.  $\alpha^{\checkmark} \dots [_{\text{island}} \dots \alpha^{\checkmark} \dots ]$

88. [A]ny structure formed by the computation (in particular,  $\pi$  and  $\lambda$ ) is constituted of elements already present in the lexical items selected for N; no new objects are added in the course of computation apart from rearrangements of lexical properties (in particular, no indices, bar levels in the sense of X-bar theory . . .)

(Chomsky 1995: 228)

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<sup>27</sup> Just as every human is pure when he is born.



One last point is related to Lasnik's statement 'every phrase is marked with ✓ 'at birth''. This account is as problematic as \*-marking since a phrase is derived through the syntactic operation merge but does not come from the lexicon. Therefore, marking a phrase with ✓ 'at birth' is done in syntax, which is a violation of the Inclusiveness Condition in the same way \*-marking is. However, there is (at least) one way to avoid this problem: suppose that every lexical/functional item comes with ✓ from the lexicon and that when a head merges with a phrase, the label (which is a copy of one of the merging elements in terms of Chomsky's (1994a) *Bare Phrase Structure* (see also Hornstein 2009)) also has ✓. In the BPS system, the label of a phrase is a copy of a head, one of the elements that merge. Thus, a phrase inherits ✓ from its head:

89. a. Merge  $\alpha^\checkmark$  and  $\beta^\checkmark$ , where  $\alpha^\checkmark$  is a head and  $\beta^\checkmark$  is its complement:  $\{\alpha^\checkmark \beta^\checkmark\}$
- b. Label the new set by copying the head  $\alpha^\checkmark$ :  $\{\alpha^\checkmark \{\alpha^\checkmark \beta^\checkmark\}\}$
- c. Merge  $\gamma^\checkmark$  and  $\{\alpha^\checkmark \{\alpha^\checkmark \beta^\checkmark\}\}$ :  $\{\gamma^\checkmark \{\alpha^\checkmark \{\alpha^\checkmark \beta^\checkmark\}\}\}$
- d. Label the new set by copying the head  $\alpha^\checkmark$ :  $\{\alpha^\checkmark \{\gamma^\checkmark \{\alpha^\checkmark \{\alpha^\checkmark \beta^\checkmark\}\}\}\}$

Now, let us see Lasnik's '✓-loss' technology in action. We need to keep in mind that the copies of a phrase inside an island bear ✓ and therefore are not defective. It's the copy that crosses an island and the higher copies that lack ✓ and therefore are defective. Notice that since ✓ is not a feature, its removal is not the consequence of checking.:

90. . . . [ XP<sup>✓</sup> . . . [XP<sup>✓</sup> . . . [island [YP XP<sup>✓</sup> . . . XP<sup>✓</sup> . . .

One point to keep in mind is that when asked my consultants reported that they can receive matrix reading in sluicing out of islands as in the following cases (ex. (57) & (72) repeated as ex. (91) & (92), respectively):

91. A: Hasan [bi(r) **hayvan-ı** gezdir-en] bi(r) çocuk-la konuştu.<sup>28</sup>  
one animal-ACC walk-SR one child-COMM talked

‘Hasan talked to a child who walked an animal.’

B: Hangi hayvan-ı ?

which animal-ACC

‘Which animal?’

= ‘Which animal is it that Hasan talked to a child who walked it?’

92. A: Uğur [Tolga biri-nden borç al-ır-sa ] çok üzül-ecek.  
one-ABL debt take-AOR-COND very get.sad-FUT

‘Uğur will be very sad if Tolga borrows money from someone.’

B: Kim-den?

who-ABL

‘Who from?’

= ‘Who is it that Uğur will be very sad if Tolga borrows money from him?’

The fact that my consultants relate a sluiced wh-phrase to the matrix antecedent clause supports Clifton and Frazier’s (2005: 139) *Main Assertion Hypothesis*:

### 93. *Main Assertion Hypothesis*

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<sup>28</sup> To avoid presuppositional effects, I keep the head of RCs indefinite. I am indebted to Valentine Hacquard for pointing this out to me.

Other things being equal, comprehenders prefer to relate material in a new sentence to the main assertion of the preceding sentence.

Clearly, in sluicing the topmost copy of the sluiced *wh*-phrase is non-defective, therefore repaired.

One coordination marker in Turkish is *ve* ‘and’, borrowed from Arabic. It can modify any two (and more) categorically-identical constituents. More than two categories can be coordinated with *ve*, and as common cross-linguistically it precedes the last conjunct (94d):

94. a. Uğur ve İbrahim (DPs)  
and  
‘Uğur and İbrahim’  
b. beyaz ve kırmızı (APs)  
white and red  
‘white and red’  
c. Tolga pişirdi ve Ecem yedi. (CPs)  
cooked and ate  
‘Tolga cooked and Ecem ate.’  
d. Uğur, Kaan ve İbrahim  
and  
‘Uğur, Kaan and İbrahim’

The other coordination strategy is to use the Comitative/Instrumental Case marker *-yla* / *ile* ‘with/by’. It can modify only two (no more than 2) nouns (no other category):

95. a. Uğur ile İbrahim (DPs)

with

‘Uğur and İbrahim’

b. \*beyaz-la kırmızı

white-with red

‘white and red’

c. \*Uğur, Kaan ile İbrahim

with

‘Uğur, Kaan and İbrahim’

My subjects found sluicing out of *ve*-coordinations unacceptable (96a) but sluicing out of *-yla/ile*-coordinations acceptable (96b):

96. a. Dün sinema-da Ahmet ve birine rastlamıştım ,

yesterday theater-LOC and one-DAT came.across

\*ama kim-e hatırlamıyorum.

but who-DAT not.remember

‘I met Ahmet and someone at the theatre yesterday, but I don’t remember who.’

b. Dün sinema-da Ahmet-le birine rastlamıştım,

yesterday theater-LOC and one-DAT came.across

ama kim-e hatırlamıyorum.

but who-DAT not.remember

‘I met Ahmet and someone at the theatre yesterday, but I don’t remember who.’

The ungrammaticality of sluicing out of *ve*-coordinations is unexpected under island repair, and I do not have any answer yet as to why this coordination structure is not repaired. I will leave it as an issue for future research. The grammaticality of sluicing out of *-yla/ile*-coordinations is expected under island repair.

#### 4. Island Repair

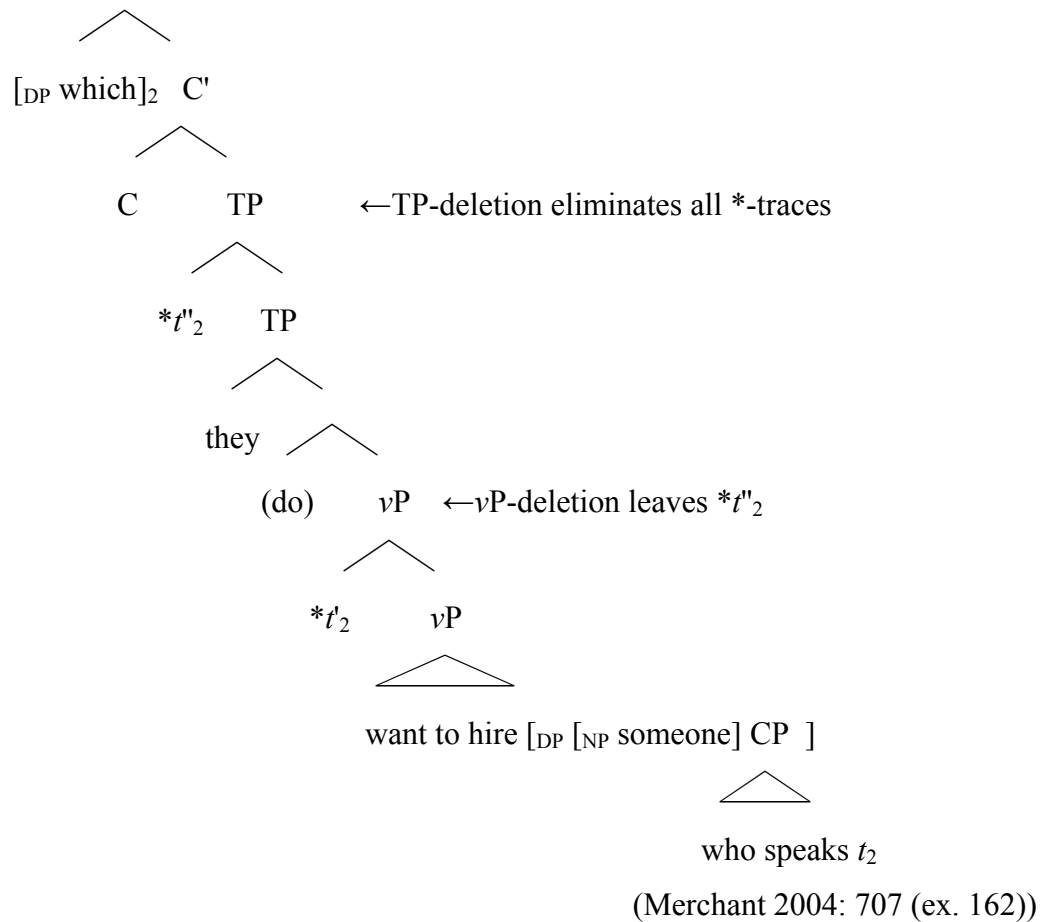
To account for island-insensitivity of sluicing in English, Merchant (2005, 2008) contends that it's a Complementizer head that has the [E]-feature that licenses deletion of the TP-complement of C. In sluicing, a *wh*-phrase moves to Spec, CP. Merchant also assumes that when a phrase crosses an island, it and all its intermediary copies between the island and its final landing site get \*-marked. An island violation is PF-repaired as long as all the intermediary \*-marked copies of a phrase are included within an elision site. So, sluicing is island-insensitive in English because all the intermediary \*-marked copies of a *wh*-phrase are within the TP-complement of the C head:

97. a. They want to hire someone who speaks a Balkan language, but I don't remember which (\*they do).

b. . . . CP<sup>29</sup>

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<sup>29</sup> Merchant, following Takahashi (1994), assumes that a phrase adjoins to every maximal projection in successive-cyclic movement. Also, he uses traces '*t*' just for brevity.



However, as discussed in the previous pages, the lack of complementizers in sluicing that appear in non-elliptical wh-questions is mysterious under the IP/TP deletion view in sluicing ((13) repeated as (98)):

98. *Slovene*

*Non-sluicing*

- a. Rad bi vedel, koga da je Peter videl.  
 glad SUBJ know whom C[-wh] AUX Peter seen  
 'I would like to know who Peter saw.'

*Sluicing*

- b. Peter je videl nekoga in rad bi vedel, koga (\*da).  
Peter AUX seen someone and glad SUBJ know who that  
'Peter saw someone and I would like to know who.'

*Irish*

*Sluicing*

- c. Cheannaigh sé leabhar inteacht ach níl fhios agam céacu  
bought he book some but not.is knowledge at.me which  
ceann (\*a / \*ar).  
one C<sub>trace</sub> C<sub>pro</sub>  
'He bought a book, but I don't know which.'

*(colloquial) Danish*

*Non-sluicing*

- d. Vi ved hvem (som) (at) der snakker med Marit.  
we know who C C C talks with marit  
'We know who is talking with Marit.'

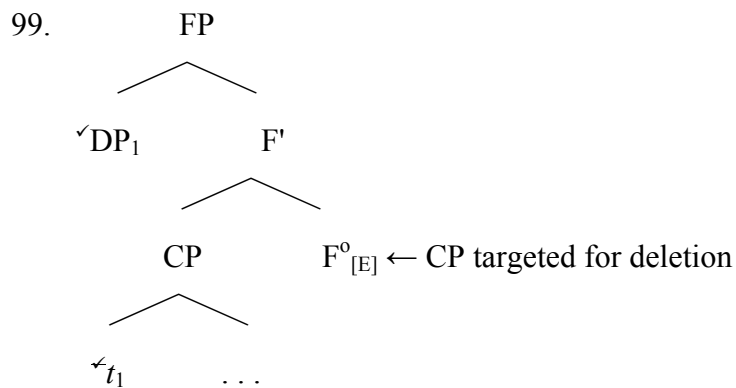
*Sluicing*

- e. En eller anden snakker med Marit, men vi ved ikke  
someone talks with Marit but we know not  
hvem (\*som) (\*at) (\*der)  
who C C C  
'Someone is talking with Marit, but we don't know who.'

(Merchant 2001: 76-77)

To explain all this issue, I will propose that in sluicing (and fragment answers), the F head has the [E]-feature. So, its complement CP is elided including all the defective copies of the moved element in CP, but the highest copy of DP in Spec, FP is still defective. Keep in mind that I assume that a phrase crossing an island loses its ✓ rather than getting a \*-feature. F repairs the defective DP in its Spec. I follow Merchant in that

in consequence of Spec-Head agreement relation with  $F^0$ , a phrase (if it has checked all its uninterpretable features by then) regains  $\checkmark$  -for Merchant its \*-feature is deleted. So, sluicing is island-insensitive in Turkish. As I said before, a phrase loses  $\checkmark$  when it crosses an island. When a phrase crosses an island, a structure is not grammatical anymore: so, loss of  $\checkmark$  is one way of encoding this ungrammaticality.



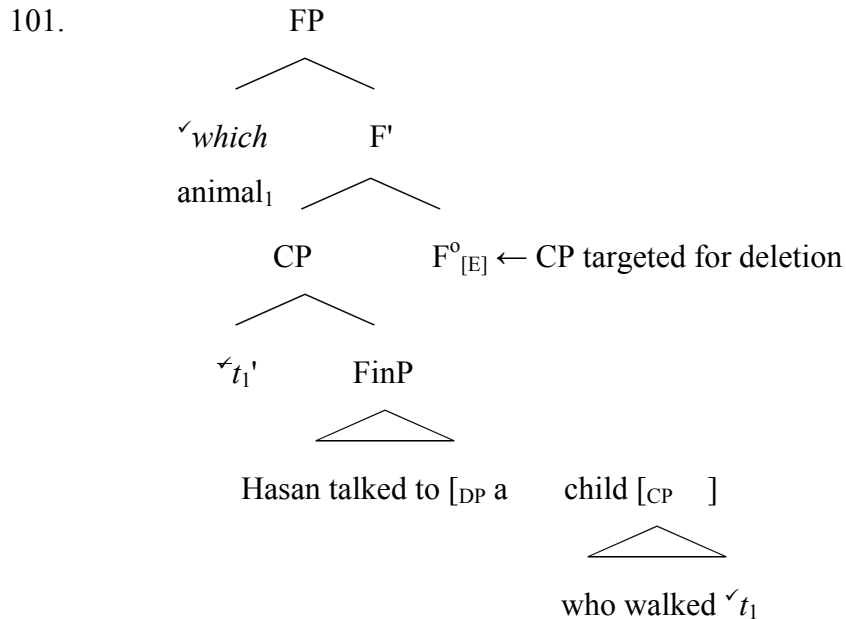
As to checking of wh-features on an Interrogative head in wh-question, I assume that the relevant features are checked before a wh-phrase moves to Spec, FP. Whether it's C or a separate Interrogative head that has uninterpretable wh-features is irrelevant to my analysis.

Let's take a look at a real example of sluicing out of an island in Turkish to see this more clearly ((56) repeated as (100)):

100. A: Hasan [**bi(r) hayvan-ı** gezdir-en] bi(r) çocuk-la konuştu.  
           one animal-ACC walk-SR one child-COMM talked  
           ‘Hasan talked to a child who walked an animal.’



B: Hangi hayvan-ı ?  
 which animal-ACC  
 ‘Which animal?’



We need to keep in mind that loss and return of ✓ is only an encoding of island violation and repair, respectively. This mechanism cannot be an explanation on its own. Unless we have a satisfactory account for why islands behave the way they do, we cannot have an account for why/how sluicing repairs island violations.

*Fox & Lasnik (2003)*

Another important study to account for island-insensitivity of sluicing is Fox & Lasnik (2003). The gist of their analysis is that a wh-phrase undergoes one-fell-swoop movement (but not successive-cyclic movement) due to parallelism requirements in ellipsis, which ‘requires the deletion of all barriers’ (p. 143) in sluicing. They remark that the difference

between sluicing and VP ellipsis (VPE) is not a matter of island repair since in certain cases VPE can also repair islands (p. 145); however, they also note that in most VPE cases, island violations cannot be repaired by deletion:

102. A: We should hire John since he knows how much every item in this store costs.

B: I think that's not necessary. ?I know how much every item costs that John does ~~knows how much~~ *t* costs.

103. A: We should hire John since he knows how much every item in this store costs.

B: I think that's not necessary. \*I know how much every item costs that John does knows how much *t* costs.

They suggest that the parallelism requirement on ellipsis makes intermediate sites unavailable, therefore forcing one-fell-swoop movement. Avoiding intermediate landing sites results in island violations, and since all these intermediate landing sites are deleted in sluicing, island violations are repaired. In VPE, on the other hand, where successive-cyclic movement occurs, since a smaller structure (i.e. VP) is targeted for deletion, one or more islands (i.e. intermediate landing sites) remain unrepaired.

To be more technical, they follow Reinhart (1997) and assume that both the indefinite correlate and the sluiced wh-phrase 'partake in a dependency that involves quantification over choice functions' (p. 149):

104.  $\exists f \lambda f$  [Fred said that I talked to  $f$ (girl)], but I don't know which  $g$  ~~girl~~  $\lambda g$ '

$\langle$ Fred said that I talked to  $g'$ (girl) $\rangle$

In (104), parallelism is satisfied since the variables in both the antecedent clause and the elided clause are bound from parallel positions. However, in the VPE version of (104), two intermediate landing sites are undeleted, and therefore unrepaired:

105.  $\exists f \lambda f$  [Fred said that I talked to  $f$ (girl)], but I don't know which  $g$   ~~$g$~~   $\lambda g'$  [<sub>TP</sub>  
Fred T [<sub>AspP</sub> did  $\langle$  say that I talked to  $g'$ (girl) $\rangle$ ]]

Quite promising for accounting for island-insensitivity of sluicing though, this analysis cannot account for island-insensitivity of fragment answers in Turkish (that we will look at in the next chapter) since the fragment answer is a definite expression and therefore cannot function as a variable to be bound by a choice function operator. In this case, we would need a separate mechanism to accounting for island-insensitivity of fragment answers. However, my version of Merchant's island repair mechanism can account for island-insensitivity of both sluicing and fragment answers, thereby making things simpler from both learnability and theoretical perspectives.

The Fox & Lasnik (2003) mechanism also predicts that a sluiced wh-phrase not reconstruct in any intermediate position. However, Agüero-Bautista (2007) shows that this is possible, concluding that wh-movement in sluicing is successive-cyclic contra Fox & Lasnik (2003):

106. a. A: Each candidate asked someone whether Bill should bribe a senator.  
 b. B: Really? Which senator ~~each candidate asked someone whether Bill should~~  
 bribe?  
 c. A: Bush asked someone whether Bill should bribe Kennedy, Kerry asked

someone else whether Bill should bribe McCain, . . .

(Agüero-Bautista 2007: 437)

A's answer in (106c) shows that B's question in (106b) has a pair-list (PL) reading, which requires that the sluiced wh-phrase *which senator* reconstructs to a position in the matrix clause but lower than the matrix subject *each candidate*. Notice that two quantifiers that are not clause-mate at any stage are non-commutative, as the lack of PL reading in (107) shows:

107. Some librarian or other found out that every boy needed help.

\*'For every boy, there is some librarian who found out that he needed help.'

(Agüero-Bautista 2007: 435)

### 5. Multiple Sluicing in Turkish

The following structures are taken as instances of multiple sluicing in English (for multiple sluicing, see Bolinger 1978, Nishigauchi 1998, Lasnik in press):

108. I know that in each instance one of the girls got something from one of the boys.

But which from which?

(Bolinger 1978: 109)

Similar structures occur in Turkish, as well:

109. Biri birşey gördü, ama kim ne bilmiyorum.  
one one.thing saw but who what not.knowing  
'Someone saw something, but I don't know who what.'

(Merchant 2001: 111)

One crucial question regarding multiple sluicing is whether it could be gapping (see also Nishigauchi 1998, Richards 2001 and Lasnik in press). One piece of evidence that multiple sluicing is different from gapping is that two DPs can be remnants in gapping whereas that is not true for multiple sluicing (110a vs. 110b):

110. a. John ate chocolate, and Mary ~~ate~~ ice-cream.  
b. \*Someone ate something, but I don't remember who ~~ate~~ what.

Another difference is that gapped clause cannot precede the antecedent clause, whereas a multiple sluicing structure can precede its antecedent clause:

111. a. \*John ~~ate~~ ice-cream, and Mary ate chocolate  
b. I'm not sure which student ~~danced~~ with which professor, but definitely some student danced with some professor yesterday at the party.

Another difference is that gapping cannot be embedded while its antecedent is a matrix structures (Jackendoff 1971), whereas multiple sluicing can:

112. a. \*Some had eaten mussels and she claims that others shrimp.  
(Johnson, to appear: ex. 15b)  
b. I know that in each instance one of the girls got something from one of the

boys. But they didn't tell me which from which.

(Nishigauchi 1998: 122)

A final difference is that multiple sluicing can occur in non-coordination structures, whereas gapping cannot:

113. a. Some student danced with some professor yesterday at the party, though I'm not sure which student with which professor.  
b. \*Some had eaten mussels though others shrimp.

Multiple sluicing structures in Turkish can be embedded though their antecedent clause is a matrix structure, unlike gapping (114a vs. 114b):

114. a. Tam olarak hangi öğrenci hangi profesör-le bilmiyorum , ama  
exactly which student which professor-COMM not.knowing but  
kesin bir öğrenci bir profesör-le dansetti dün-kü parti-de.  
definitely one student one professor-COMM danced yesterday-KIparty-LOC  
'I don't know exactly which student with which professor, but definitely  
some student danced with some professor at the party yesterday.'  
b. \*Tolga armut yedi, Uğur Kaan-ın elma sanıyor.  
pear ate -GEN apple thinks  
'\*Tolga ate a pear Uğur thinks Kaan ate apple.'

Also, multiple sluicing can occur in non-coordination structures, whereas gapping cannot:

115. a. Dün parti-de bir öğrenci bir profesör-le dansetti, tam olarak  
yesterday party-LOC one student one professor-COMM danced exactly

hangi öğrenci hangi professor-le bilmesem de.  
 which student which professor-COMM not.knowing also

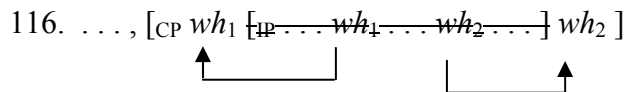
‘Yesterday some student danced with some professor at the party, though I don’t know which student with which professor.’

b. \*Tolga armut yedi , çünkü Kaan elma yedi.  
 pear ate because apple

‘Tolga ate a pear because Kaan (ate) an apple.’

Due to the differences between multiple sluicing and gapping shown above, I take multiple sluicing structures different from gapping structures in Turkish.

As to derivation multiple sluicing in English, which normally disallows overt multiple *wh*-fronting, Lasnik (in press) suggests that the second *wh*-phrase undergoes (rightward) extraposition:



The motivation for Lasnik proposal is parallelism between multiple sluicing and rightward movement in English. As stated above, the second *wh*-phrase has to be inside a PP (110b (repeated as 117a) vs. 113a (repeated as 117b)). Likewise, a PP but not a NP can undergo rightward movement (118a-c vs. b-d, respectively).<sup>30</sup>

<sup>30</sup> Lasnik (to appear) takes Heavy NP Shift (HPNS) as a different process than rightward movement of non-DPs.





Having said that, now let us look at the interaction between superiority and multiple sluicing in Turkish:

121. Biri (başka) birin-e lobi-de bağıryordu, ama  
one else one-DAT lobby-LOC yelling but  
'Someone was yelling at someone (else), but'
- a. kim kim-e bilmiyorum.  
who who-DAT not.knowing  
'I don't know who to who.'
- b. \*kim-e kim bilmiyorum.  
who-DAT who not.knowing  
'\*I don't know to who who.'

The fact that the object *wh*-phrase cannot precede the subject *wh*-phrase is evidence for superiority in multiple sluicing (121b).<sup>31</sup>

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<sup>31</sup> Chomsky (1973) contended the Superiority Condition (i), suggesting that (ii) by Kuno and Robinson (1972) is a special case of (i):

i. *Superiority Condition*

No rule can involve X, Y in the structure

... X ... [ <sub>$\alpha$</sub>  ... Z ... -WYV ... ]

where the rule applies ambiguously to Z and Y and Z is superior to Y.

ii. A *wh*-word cannot preposed crossing over another *wh*.

Chomsky (1995) contended (iii) (*Attract Closest*), a restatement of the Superiority Condition for movement:

iii.  $\alpha$  can raise to target K only if there is no legitimate operation Move  $\beta$  targeting K, where  $\beta$  is closer to K.

In essence, both (i) and (iii) constrain WHAT MOVES among two or more phrases, based on the *wh*-movement in English which allows only one phrase to move (overtly). As to multiple *wh*-fronting languages such as Bulgarian, Serbo-Croatian and multiple scrambling languages such as Turkish, Japanese and Korean and multiple sluicing in all these languages, neither (i) nor (iii) suffice since more than one phrase moves in these cases. In these structures, any formulation of the Superiority Condition needs to constrain what moves FIRST (see Rudin 1988; Bošković 1997, 1998, 1999, 2002; Richards 1997, 1998, 2001; Pesetsky, 2000). In other words, it needs to constrain the ordering of the movement of the relevant phrases. To do this, we can have a version of (iii) as in (iv):

However, when the sluiced wh-phrases are D-linked, superiority does not hold.<sup>32</sup>

122. Bir öğrenci bir profesör-le dün-kü parti-de dansetti, ama  
one student one professor-COMM yesterday-KI party-LOC danced but

a. hangi öğrenci hangi profesör-le hatırlamıyorum.  
which student which professor-COMM not.remembering

which student which professor-COMM not.remembering

b. hangi profesör-le hangi öğrenci hatırlamıyorum.  
which professor-COMM which student not.remembering

which professor-COMM which student not.remembering

‘Some student danced with some professor at the party yesterday, but I don’t  
remember which student with which professor.’

This is similar to movement of D-linked wh-phrases in English, in which cases no violation of Superiority holds (123a-b), in contrast to non-D-linked wh-phrases (124a vs.

b):

123. a. Which boy called which girl?

b. Which girl<sub>1</sub> did which boy call ~~which girl<sub>1</sub>~~?

---

iv. In multiple fronting cases,  $\alpha$  can be the first element to raise to target K only if there is no

legitimate

operation Move  $\beta$  targeting K, where  $\beta$  is closer to K.

However, as Howard Lasnik points out (p.c.), this still would not explain why one has to be higher than the other.

<sup>32</sup> I am indebted to Turgay Bayındır, Zeynep Kulelioğlu, Ilknur Oded and Ali Fuad Selvi for their judgements on the multiple sluicing data.

124. a. Who ate what?

b.\*/??What<sub>1</sub> did who eat ~~what~~<sub>1</sub> ?

### 6. Resumption-Based Analysis of Sluicing

In this section, I will give the main points and main problems of the (movement-theoretic) resumption-based analysis of sluicing by Wang 2007, a recent analysis to account for island-insensitivity of sluicing (in English).<sup>33</sup> Wang (2007) promotes a resumption-based analysis to explain island-insensitivity of sluicing (in English) (see also Boeckx 2007), where resumptive pronouns appear when movement is blocked (Aoun, Choueiri & Hornstein 2001).


Wang claims that it's a resumptive pronoun in the base position that enables extraction of a *wh*-phrase out of an island in sluicing, following the resumption analyses by Aoun, Choueiri and Hornstein (2001), Kayne (2002)<sup>34</sup> and Boeckx (2003). In other words,

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<sup>33</sup> For arguments against the *Simple(r) Syntax* approach to sluicing in Culicover & Jackendoff (2005), see Chandra & Ince (2007).

<sup>34</sup> Kayne (2002) does not say anything about resumption. He argues for a movement-based analysis of pronoun-antecedent relations.

sluicing is island-insensitive in English because the lower copy of the moved element is turned into a resumptive pronoun, though he remarks that a stranding analysis (Boeckx 2003) would also work:

$$125. \quad \dots wh_1 C^0 \langle [TP \dots [island \dots resumptive\ pronoun_1 \dots]] \rangle^{35}$$


Wang continues that island-sensitive sluicing cases are due to lack of a RP in the elided clause: for instance, resumption, Wang states, can account for the island-sensitivity of *sprouting* (for *sprouting*, see Chung, Ladusaw and McCloskey 1995). *Sprouting* refers to sluicing structures where the *wh*-phrase lacks an overt (indefinite) correlate in the antecedent clause:

126. a. They're jealous, but it's unclear of who.  
 b. Joe was murdered, but we don't know by who.  
 c. Last night he was very afraid, but he couldn't tell us of what.  
 d. Mary was flirting, but they wouldn't say with who.  
 e. We're donating our car, but it's unclear to which organization.

(CLM 1995)

The following data shows that *sprouting* is island-sensitive:

127. a. \* Agnes wondered how John managed to cook, but it's unclear what food.

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<sup>35</sup> As I will point out in the following paragraphs as Howard Lasnik pointed out to me, it is not clear how a resumptive element repairs an extraction-out-of-island violation.

a'. Agnes wondered how John managed to cook *a certain food*, but it's unclear what food. (Wang 2007)

To explain ungrammaticality of (127a), Wang makes use of Chung's (2006) (lexical) Parallelism condition:

128. Every lexical item in the numeration of the sluice that ends up (only) in the elided IP must be identical to an item in the numeration of the antecedent CP.

The condition in (128) is basically a set-subset relation: '*the lexical items from which the sluice is constructed must be a subset of the lexical items from which the antecedent CP is constructed.*' (Chung 2006: 11 (italics mine)) In other words, computation of parallelism is done LI by LI.

Chung (2006), by the (lexical) Parallelism condition, accounts for the ungrammaticality of the following structures, where the stranded preposition in the elision site does not have any identical occurrence in the antecedent clause, in other words, ungrammaticality of P-stranding in sprouting cases (129a vs. 129b) and its optionality in non-sprouting cases (129c vs. 129c'):

129. a. \* They're jealous, but it's unclear who(m)  $\langle_{\text{TP}}$  they are jealous *of*  $\rangle$ .  
b. They're jealous, but it's unclear *of* who(m)  $\langle_{\text{TP}}$  they are jealous  $\rangle$ .  
c. They're jealous of someone, but it's unclear who.  
c'. They're jealous of someone, but it's unclear [who [they're jealous of — ]].

In (129a), the preposition *of* is in the elision site; however, the antecedent clause lacks the same preposition. So, mutual entailment condition does not hold since lexical elements in the elision site are not identical to the lexical elements in the antecedent clause: {they, be, jealous} (antecedent clause) vs. {they, be, jealous, of} (elided part). In (129b), *of* is extracted out of the elision site and pronounced, which satisfies the Lexical Parallelism since the mutual entailment condition holds: lexical items in the numeration of the elided clause, i.e. *of, who, they, be, and jealous*—only three (*they, be, jealous*) end up in the elision site. Each of these three lexical items is identical to an element in the antecedent clause. In (129c), on the other hand, the antecedent clause includes *of* in its numeration; so, *of* can be stranded and deleted in the elision site.

To follow the generalization in (128), for Wang (130a) is out because the antecedent clause lacks any (overt) correlate for the resumptive pronoun **RP** in the elided clause, in contrast to (130a'), as shown in (130a-b) respectively:<sup>36</sup>

130. a. \*Agnes wondered how John managed to cook, but it's not clear what food  
       <<sub>TP</sub> Agnes wondered how he managed to cook **RP**>.  
       b. Agnes wondered how John managed to cook [*a certain food*]<sub>x</sub>, but it's not  
       clear what food <<sub>TP</sub> Agnes wondered how he managed to cook **RP**<sub>x</sub>>.

---

<sup>36</sup> Keep in mind that Wang suggests that an RP appears at least in island cases in sluicing. If it can appear in non-island cases as well, then sprouting should not be possible at all. Since sprouting is possible in non-island cases, RPs must be restricted to occurring in islands in sluicing.

However, the picture is not so clear for (130b). Wang takes *a certain food* as the ‘parallel correlate’ of the **RP** in the elision site. In (129c), for example, the parallel correlate *of* in the antecedent clause is identical to the elided preposition. Chung notes that lexical items are bundles of features. Notice that Chung refers to one-to-one identity between lexical items, not phrases, with ‘lexical parallelism’. Otherwise, she would have said ‘phrasal parallelism’. It is a condition on numeration. Since phrases are not included in the numeration, lexical parallelism cannot be a condition on (syntactic) phrases, as Chung’s explanation for the examples in (129) shows above.<sup>37</sup> So, the correlate must be identical to the element to be deleted in terms of those bundles of features. In (129c), the preposition *of* in the elision site and its correlate are parallel in terms of phonological, semantic (if any) and categorical features. In Wang’s case, on the other hand, the resumptive pronoun **RP** and its correlate *a certain food* do not match in phonological features. Nor do they match in semantic features: *a certain food* is an indefinite expression, whereas **RP** is not. Still worse, *a certain food* is an expression, not a lexical item. It consists of three lexical items, *a + certain + food*, each of which is a separate LI in the lexicon and therefore in the numeration. With *lexical parallelism*, Chung refers to parallelism between lexical items, not a lexical item and a lexical expression. Otherwise, *John* and *the man who is riding his horse on the street* would be lexically identical, which is not true, although they refer to the same entity in the following example:

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<sup>37</sup> Also, if it were just a matter of phrasal identity, the following would be expected to be grammatical, since both antecedent clause and the elision clause include a PP:

- i. \*John was yelling to someone, but it’s not clear at who(m).



131. a. John is the man who is riding his horse on the street.  
b. A: Who's the man who is riding his horse on the street?  
B: John!

So, Wang's account for the island-sensitivity of *sprouting* is problematic. Therefore, his resumption-based analysis of sluicing is also problematic since it is hard to conceptualize any lexical parallelism between a phrase in the antecedent clause and a resumptive pronoun in the elision site.

Furthermore, in a movement-based analysis of resumption where the lower copy is replaced by/turned into a RP –which Wang assumes, the RP is interrelated with the extracted element it replaces/a reduced form of. However, Wang's analysis requires that an RP in sluicing cases is interrelated with the indefinite correlate in the antecedent clause. This makes very mysterious the relation between a *wh*-phrase and the RP in sluicing structures as follows:

132. Agnes wondered how John managed to cook [*a certain food*]<sub>x</sub>, but it's not clear what food <<sub>TP</sub> Agnes wondered how he managed to cook *RP*<sub>x</sub>>.

Also, resumption structures do not allow pair-list (PL) readings, on the contrary, they force a single pair reading (Doron (1982), Sharvit (1999), Boeckx 2003). See the contrast between (133) vs. (134). In the non-resumptive (133), the PL reading is possible, whereas the resumptive case in (134) lacks the PL reading:

133. Ha-iša      še kol    gever hizmin hodeta lo.  
 the-woman that every man invited thanked to-him  
 a. The woman every man invited thanked him  
 b. for every man x, the woman that x invited thanked x

134. Ha-iša      še kol    gever hizmin ota hodeta lo.  
 the-woman that every man invited her thanked to-him  
 a. The woman every man invited thanked him  
 b. \*for every man x, the woman that x invited thanked x

(Doron 1982)

However, as Agüero-Bautista (2007) shows, PL readings are possible in sluicing out of (weak) islands, which is unexpected under a resumption story of sluicing:

135. a. A: Each candidate asked someone whether Bill should bribe a senator.  
 b. B: Really? Which senator ~~each candidate asked someone whether Bill should bribe?~~  
 c. A: Bush asked someone whether Bill should bribe Kennedy, Kerry asked someone else whether Bill should bribe McCain, . . .

(Agüero-Bautista 2007: 437)

In conclusion, Wang's resumption-based analysis of sluicing needs to iron all the wrinkles I have introduced above to be able to account for island-insensitivity of sluicing (in English).

## 7. Conclusion

In this chapter we have seen that sluicing is island-insensitive in Turkish, the proposal that sluicing is derived by deletion of CP complement of a focus projection, FP and that multiple sluicing structures are different from gapping structures. We have also seen a few problematic aspects of a resumption-based approach to account for island-insensitivity of sluicing.

## ***Appendix***

An interesting study on sluicing to note is Lasnik (1999). Lasnik (1999) takes ellipsis as PF-deletion. With respect to sluicing, he focuses on why I(nfl) is not pronounced in C (136a vs. 136b) (as in non-elliptical cases (136c vs. 136d)) position although it is IP that is deleted:

136. a. Speaker A: Mary will see someone.  
Speaker B: Who ~~Mary will see~~?
- b. Speaker A: Mary will see someone.  
Speaker B: \* Who will ~~Mary see~~?
- c. Who will Mary see?
- d. \*Who Mary will see?

To explain non-pronunciation of INFL in sluicing, Lasnik states that I does not raise to C at all in sluicing. As to why I does not raise to C in sluicing, he suggests that it's I but not C that bears strong features that need to move to C to be checked. Then, he continues, there are two ways for the derivation to converge with respect to the strong features of I:

either the strong features of I raise to C, or they do not move but are included in an elision site, i.e. IP, in consequence of which PF does not see any strong features. In other words, sluicing saves a PF-crash.

However, PF-deletion is supposed to occur at PF not in Narrow Syntax (NS), as the very name implies. A structure can at most be marked for PF-deletion in Narrow Syntax, as Merchant's (2008) [+E]-feature does. Lasnik states that PF-deletion supports the PF Crash Theory (PCT):

137. *PF Crash theory*

A strong feature that is not checked in overt syntax causes a derivation to crash at PF.

(Lasnik 1999 citing Chomsky 1993)

PCT requires, in a sense, that no unchecked strong feature can be carried over to PF, otherwise the derivation crashes. If it's the case that PF-deletion occurs at PF, then it means that unchecked strong features of I are carried over to PF in sluicing, which would cause the derivation to crash since strong features are not checked in Narrow Syntax.

Another theory in which Lasnik accounts for non-pronunciation of I in sluicing is the 'multiple chain theory of pied-piping', as Ochi (1998) interpreted Chomsky (1995). In this theory, two chains are formed in movement. One chain is of the formal features (FF) of a moving item:  $CH_{FF} = (FF[F], t_{FF[F]})$ . The other is of the categorical features of the moving item:  $CH_{CAT} = (\alpha, t_{\alpha})$ . 'CH<sub>FF</sub> is always constructed, CH<sub>CAT</sub> only when required for convergence.' (Chomsky 1995: 265)

Lasnik (1999) takes it that it's C that bears strong features to be checked by I. In this case, the formal features of I move to C, and the strong features of C are checked. However, Lasnik continues, this makes I phonologically defective, which can be repaired either by forming of CH<sub>CAT</sub> or deletion of a category containing I.

All in all, Lasnik's analysis requires look-ahead in both PF Crash Theory and 'multiple chain theory of pied-piping' in that it requires the strong features of I not to move to C in the PF Crash Theory and only formal features move in the 'multiple chain theory of pied-piping' in sluicing. He does not specify any economy condition for this 'no/less movement' in sluicing. One way to avoid this look-ahead issue is to encode sluicing (ellipsis, in general) in Narrow Syntax, as Merchant's (2008) [+E]-feature does. However, this would not solve the problem with the PF Crash Theory I introduced above.

On the other hand, if it's CP rather than IP that is the target of PF-deletion in sluicing –as I assume in this thesis, we would not need any assumption with respect to whether and features should move or what features should move.

Howard Lasnik (2001b) notes that if head movement is PF phenomenon as in Boeckx and Stjepanović (2001), the look-ahead issue above would not raise. Head movement as PF phenomenon would work for the 'multiple chain theory of pied-piping', although head movement as PF phenomenon brings its own problems which I will show in the following lines.

Head movement as PF phenomenon would not solve the problems for Lasnik's (1999) first theory, i.e. the moving element bearing (uninterpretable) strong features, since head movement at PF would itself not match with the PF Crash theory (137 repeated as 138)

because PF movement would mean that strong features are checked at PF, which is too late under the PF crash theory, which requires strong features to be checked in overt syntax.

138. *PF Crash theory*

A strong feature that is not checked in overt syntax causes a derivation to crash at PF.

(Lasnik 1999 citing Chomsky 1993)

As to the problems with head movement as PF phenomenon, one problem, raised by Embick and Noyer (2001), is that ‘postulating two modularly distinct syntactic systems departs from a minimalist model of grammar’ (Matushansky 2006: 74). Another issue, raised by Zwart (2001), is that ‘the very existence of a phonological branch of the derivation is theoretically suspicious: assuming that the PF interface is the process of converting elements of the syntactic structure into strings of phonemes, any deviation from this basic definition must be argued for and its properties must be established’ (Matushansky 2006: 74). Matushansky (2006) also remarks that Chomsky (2001) creates a ‘loophole’ with respect to head movement as PF phenomenon:

“ . . . on the one hand, the C-T-V and D-N complexes are assumed to be phonologically associated by head movement; but on the other hand, the same complexes are also assumed to be associated by an LF process. Importantly, these two processes are in no way connected” (p. 98)

## **CHAPTER 3: FRAGMENTS IN TURKISH**

### *1. Introduction*

In this chapter I will give basic properties of fragment answers in Turkish, argue that they are elliptical structures and show that they are also island-insensitive as sluicing is in Turkish (for fragments answers in English and other languages see Morgan (1973), Hankamer (1979), Stanley (2000) and Merchant (2005)).

1. A: Ahmet **kim-le** sinema-ya git-ti?  
who-COMM theatre-DAT go-PST

‘Who did Ahmet go the movie with?’

B: **Ayşe-yle.**

-COMM

‘With Ayşe’

B’s answer in (1) is a fragment answer in that it is not a full clause and in that it takes the *wh*-phrase in the antecedent clause as its correlate.

## 2. Connectivity + Movement

In the following parts, I will give evidence for the existence of syntactic structure as the elided part and also for movement of fragment answers.

### 2.1. Connectivity Effects

Connectivity effects show that there is (phonologically) invisible syntactic structure in fragment answers. All the following tests of connectivity are taken from Merchant (2005) as well as Nishigauchi (2006).

#### 2.1.1 Case-Matching

The Case on the fragment answer has to match with that of its *wh*-correlate in the antecedent clause, as its non-elliptical version does:

2. a. A: Ahmet kim-le sinema-ya git-ti?



- who-COMM theatre-DAT go-PST  
 ‘Who did Ahmet go the movie with?’  
 B: Ayşe-yle/\*Ø/\*yi.  
 -COMM/NOM/ACC  
 ‘With Ayşe/\*Ayşe’  
 B’: Ahmet Ayşe-yle sinemaya git-ti.  
 -COMM theatre-DAT go-PST  
 ‘Ahmet went to the movie with Ayşe.’  
 b. A: Ayşe sinema-da kim-i gör-müş?  
 theatre-LOC who-ACC see-HEARSAY  
 ‘Who did Ayşe see in the theatre?’  
 B: Tolga-yı/\*Ø/\*ya  
 -ACC/\*NOM/\*DAT  
 ‘Tolga/\*to Tolga’  
 B’: Ayşe sinema-da Tolga-yı gör-müş.  
 theatre-LOC -ACC see-HEARSAY  
 ‘Ayşe saw Tolga in the theatre.’

In (2a), the *wh*-phrase bears Committative Case, and the fragment answer also has to bear Committative Case, other Cases are ungrammatical; in (2b), likewise, the *wh*-phrase in the antecedent clause bears Accusative Case, and the fragment answer also has to bear Accusative Case.

### 2.1.2 Binding Condition Effects

Fragment answers also exhibit Condition C effects as their non-elliptical version does:

[In a context where A and B are talking about Ali]

3. A: *pro*<sub>1</sub> nerede kal-ıyor?

where stay-PROG

‘Where is he staying?’

B: \*Ali<sub>1</sub>-nin ev-in-de.

-GEN home-3SPOSS-LOC

‘\*In Ali’s house’

B': \*pro<sub>1</sub> Ali<sub>1</sub>-nin ev-in-de kal-ıyör.

-GEN home-3SPOSS-LOC stay-PROG

‘\*He<sub>1</sub> is staying in Ali’s<sub>1</sub> house.’

B'': \*[Ali<sub>1</sub>-nin ev-in-de]<sub>2</sub>, pro<sub>1</sub> t<sub>2</sub> kal-ıyör.

-GEN home-3SPOSS-LOC stay-PROG

‘\*In Ali’s<sub>1</sub> house, he<sub>1</sub> is staying.’

*Ali* cannot be possessor; otherwise, it will be bound by *pro*, Condition C violation.<sup>38</sup>

### 2.1.3 Scope

An Accusative-marked indefinite Object can take scope over a quantifier Subject in Turkish (Keleşir 2001: 59):<sup>39</sup>

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<sup>38</sup> Valentine Hacquard remarks that B's answers in (3) could be ruled out not because of a Condition C violation, but because *Ali* is so salient, and was referred to as 'he' by A, that B's use of *Ali* is infelicitous. However, even in case where felicity is blocked, the structure is still bad:

i. \*[[Ali-nin<sub>1</sub> ev-in]-de]<sub>2</sub>, pro<sub>1</sub> t<sub>2</sub> kal-ıyör.

-GEN home-3SPOSS-LOC staying

‘At Ali’s<sub>1</sub> house, he<sub>1</sub> is staying.’

So, I take that Condition C is still violated in (3).

4. Her öğrenci bir kitab-ı okudu.  
 every student a book read  
 ‘Every student read a book.’
5. a. There is a list of books and every student x read a book y from that list.  
 b. There is one book s.t. every student read that book.

Accusative-marked indefinite objects as fragment answers create the same ambiguity:

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<sup>39</sup> The fact that those indefinites can take wide scope is not due to the fact that they bear Accusative Case and therefore are [+specific] (Enç, 1991). Universal quantifiers in Turkish obligatorily bear Accusative Case (Enç, 1991), but they cannot take scope over a higher quantifier:

- i. Bir öğrenci her profesör-\*(ü) aradı.  
 one student every professor-Acc called.  
 ‘One student called every professor.’  
 (Intended reading: ‘There is one student such that he called every professor.’  
 Inaccessible reading: ‘For every professor x, there is a student y such that he called professor x.’)

Hintikka (1986) shows that specific NP/DPs in English can have the narrowest possible scope:

- ii. Each husband had forgotten a certain date –his wife’s birthday.

All this data shows that specificity is independent of (the) wide(st) scope.

6. A: Her tercüman kaç diplomat-ı karşıla-dı?  
every translator how.many diplomat-ACC greet-PAST  
‘How many diplomats did each translator greet?’

B: Üç diplomat-ı.  
three diplomat-ACC  
‘Three diplomats.’

7. a. There is a set of diplomats and every translator  $x$  greeted a (possibly different) subset of three diplomats  $y$ : 3 from that set.  
b. There is a set of three diplomats s.t. every translator greeted that set of translators.

#### 2.1.4 Bound Pronouns

A pronoun in the fragment answer can be bound by a quantifier in the antecedent clause.

8. A: [Her Türk]<sub>1</sub> kim-i daha çok sev-er?  
every Turk who-ACC more very love-AORIST  
‘Who does every Turk love more?’

B: *pro*<sub>1</sub> anne-sin-i.  
mother-3SPOSS-ACC  
‘His mother.’

To avoid **telescoping effects**<sup>40</sup> (see Roberts (1987), Belvadi (1989), Fox (2000)), let’s try it with a quantifier like *almost every Turk*. We still get the bound variable reading of *pro* in the fragment answer:

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<sup>40</sup> See footnote 8 in Chapter 2.

9. A: ?[Hemen hemen her Türk]<sub>2</sub> kim-i daha çok sever?  
 Right.away right.away every Turk who-ACC more very love-AORIST  
 ‘Who does almost every Turk love more?’  
 B: *pro*<sub>2</sub> anne-sin-i.  
 mother-3SPOSS-ACC  
 ‘His mother.’

## 2.2. Evidence for Movement in Fragments

### 2.2.1 Postposition Pied-Piping

Certain postpositions cannot be stranded when their complement is scrambled to a clause-initial position –Turkish is a *wh*-in-situ language:

10. a. Ahmet Ayşe için bu kitab-ı al-mış.  
 for this book-ACC take-HEARSAY  
 ‘Ahmet bought this book for Ayşe.’  
 b. [Ayşe için]<sub>1</sub> Ahmet *t*<sub>1</sub> bu kitab-ı al-mış.  
 for this book-ACC take-HEARSAY  
 ‘For Ayşe, Ahmet bought this book.’  
 c. \*Ayşe<sub>2</sub> Ahmet [*t*<sub>2</sub> için]<sub>PP</sub> bu kitab-ı al-mış.  
 for this book-ACC take-HEARSAY  
 ‘\*Ayşe, Ahmet bought this book for.’

Likewise, the same postposition has to be pied-piped in fragment answers:

11. A: Ahmet bu kitab-ı kim için al-mış?  
 this book-ACC who for take-HEARSAY  
 ‘Who did Ahmet buy this book for?’

B: Fatma \*(için).

For

‘\*(For) Fatma.’

Certain postpositions can be stranded, and their pronominal complement is scrambled to a clause-initial position:

12. a. Ayşe sen-in hakk-ın-da çok şey duy-muş.  
you-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘Ayşe heard a lot about you.’
- b. [Sen-in hakk-ın-da]<sub>1</sub> Ayşe t<sub>1</sub> çok şey duy-muş.  
you-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘About you, Ayşe heard a lot.’
- c. ?Sen-in<sub>2</sub> Ayşe [t<sub>2</sub> hakk-ın-da] çok şey duy-muş.  
you-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘You, Ayşe heard a lot about.’

Likewise, the same postposition can be stranded in fragment answers:

13. A: Ayşe kim-in hakk-ın-da çok şey duy-muş?  
who-GEN right-2SPOSS-LOC very thing hear-HEARSAY  
‘Who did Ayşe hear a lot about?’
- B: Sen-in (hakk-ın-da).  
you-GEN right-2SPOSS-LOC  
‘About you.’

### 2.2.2 Complement Clauses as Fragment Answers

In Turkish, complement clauses are nominalized. The Subject bears Genitive Case – unless non-specific, the verb bears nominal/possessive agreement morphology, and the whole clause bears Case morphology (14), in parallel to possessive structures (15):

14. Ahmet [Hasan-**in** Londra-ya git-ti-ğ-**in**]-i söyle-di.  
-GEN -DAT go-PAST-COMP-POSS3S-ACC say-PAST  
‘Ahmet said that Hasan had gone to London.’

15. *Pro* [Hasan-**in** araba-sın]-ı al-dı-m.  
-GEN car-POSS3S-ACC take-PAST-1S  
‘I bought/borrowed Hasan’s car.’

Likewise, a complement clause as a fragment answer also has to bear the same morphological properties. Its subject has to bear Genitive Case and its verb nominal/possessive agreement morphology:

16. A: Herkes ne-ye inan-ıyor?  
everyone what-DAT believe-PROG  
‘What does everyone believe?’

B: Sen-**in** yüz-ebil-di-ğ-**in**-e.  
you-GEN swim-ABIL-PAST-COMP-POSS2S-DAT  
‘That you can swim.’

All these properties follow directly from an approach that assumes existence of syntactic structure that is elided after a fragment answer undergoes movement. If correct, it

requires that the complement clauses be scrambled to the left periphery of a matrix clause, something which Turkish independently allows:

17. [Hasan-**in** Londra-ya git-ti-ğ-**in**]-**i**<sub>1</sub> Hasan *t*<sub>1</sub> söyle-di.  
 -GEN -DAT go-PAST-COMP-POSS2S-ACC say-PAST  
 ‘That you had gone to London, Hasan said.’

### 2.2.3 NPI/NCIs and Parallelism of Polarity

Turkish lacks negative phrases like *nobody* and *nothing* (Kelepir 2001). The corresponding negative elements in Turkish require a negation marker in their clause. They cannot occur in affirmative clauses (Kelepir 2001: 121):

18. a. John (**hiç**)kimse-yi gör-me-di-Ø.  
 John **anybody**-A see-**neg**-past-3sg  
 ‘John didn’t see anybody.’  
 b. \*John (**hiç**)kimse-yi gör-dü-Ø.  
 John anybody-A see-past-3sg (Kelepir 2001: 121)

Kelepir (2001) takes these elements to be NPIs, whereas Şener (2007), following Watanabe (2004), takes them to be NCIs (**Negative Concord Items**). In this study, I will refer to them as **N-words**.

The basic properties of these elements are as follows (from Şener (2007: 1)):

19. a. Used as an elliptical answer to a question: yes  
 b. Used in non-negative contexts: yes



- c. Used in the Subject position: yes  
 d. Modified by ‘almost’: yes  
 e. Clause bounded: yes

Şener (2007: 2) gives the following data in (20b-c mine) for each point in (19), respectively:

20. a. Q: Kim gel-di?

who<sub>NOM</sub> come<sub>PAST-3SG</sub>.

‘Who came?’

A: Kimse.

anybody<sub>NOM</sub>

‘Nobody.’

(Şener 2007: 2)

b. Q: Ali kim-le konuş-uyor?

who-COMM talk-COMM

‘Who is Ali talking to?’

A: (Hiç)kimse-yle!

anybody-COMM

‘To nobody!’

c. Q: Ayşe ne ye-di?

what eat-PST

‘What did Ayşe eat?’

A: \*(Hiç)bişey!<sup>41</sup>

---

<sup>41</sup> The particle *hiç*, interestingly, cannot be omitted in fragment answers other than *kimse* (nobody), unlike a non-elided version:

(i) Ayşe (hiç)birşey ye-me-di.

anything eat-NEG-PST

anything  
'Nothing!'

21. a. Kimse gel-di mi?  
anybody<sub>NOM</sub> come<sub>PAST-3SG</sub>. Q  
'Did anybody come?'

b. Hasan **hiç** Amerika-ya gel-di-Ø mi?  
Hasan **ever** America-D come-past-3sg q.marker  
'Has Hasan ever come to America?'

(Kelepir 2001: 124)

22. Kimse gel-me-di.  
anybody<sub>NOM</sub> come<sub>NEG-PAST-3SG</sub>.  
'Anybody didn't come.' (Lit: Nobody came.)

---

'Ayşe didn't eat anything.'

(ii) Q: Ahmet ne al-dı?  
what take-PST  
'What did Ayşe buy?'  
A: \*(Hiç)birşey/Birşey.  
Nothing/something

Unlike its [+human] counterpart *kimse* 'anybody', *birşey* 'anything' can also be used as an indefinite quantifier (iii), and the indefinite reading sounds ok.(iiA):

(iii) Ayşe birşey al-di.  
one.thing buy-PAST  
'Ayşe bought something.'

23. *Neredeyse* kimse gel-me-di.

almost anybody<sub>NOM</sub> come<sub>NEG-PAST-3SG</sub>.

‘Almost anybody didn’t come.’ (Lit: Almost nobody came.)

24. \*Cem [Pelin-in *kimse-yi* gör-düğ-ün-ü] bil-mi-yor.

Cem<sub>NOM</sub> P<sub>GEN</sub> anybody<sub>ACC</sub> see<sub>NOML-3SG.POSS-ACC</sub> know<sub>NEG-PRES</sub>

‘Cem doesn’t know that Pelin saw anybody.’

Şener (2007) notes that ex. (21a) could be a counter-argument against calling these negative elements as NCIs in Turkish. Progovac (1994), on the other hand, –following a suggestion by Mürvet Enç- proposes that the yes/no question marker *–mI* may be related to the Negative marker *–mE* and that thus it licenses an N-word. H. Zeijlstre (p.c.) also notes that the semantic composition of yes-no questions include a negative and non-negative statement in their answer set:  $p$  &  $\neg p$ , and that the negation again licenses N-words in yes-no questions.

None of these N-words other than *kimse* can occur in conditionals<sup>42,43</sup> in Turkish, unlike English (26a) and Hindi (26b):

25. a. Have you seen anything?

(Watanabe 2004: 562)

b. tumheN kuch bhii pasand aayii kyaa?

---

<sup>42</sup> Kelepir (2001: 123) notes that ‘[i]t is the speakers’ intuition that *hiçkimse* involves more emphasis as in “. . . not anybody at all”.’ She also notes that there is no difference between *kimse* and *hiçkimse*.

<sup>43</sup> Kelepir (2001: 123) notes that ‘[i]n contemporary Turkish *kimse* has lost its indefinite usage, and become a negative polarity item.’ Maybe, *kimse* occurs as an indefinite in conditionals, and that’s why it is grammatical.

you      anything    like                    Q  
'Did you like anything?'

(*ibid.*, 598)

26. a. If John steals anything, he'll be arrested.

(*ibid.*, 598)

b. agar raam kuch bhii paRhega, to use sar dard hone lagega.

if Ram anything read-FUT then him headache happen

'If Ram reads anything, he will get a headache.'

(*ibid.*, p. 597)

c. (\*Hiç)kimse-yi gör-ür-se-n , ben-i ara!<sup>44</sup>

anybody-ACC see-AOR-COND-2S I-ACC call

'If you see anyone, call me!'

d. Ali (\*hiç) gel-ir-se , ben-i ara!

ever come-AOR-COND I-ACC call

'If Ali ever comes, call me!'

e. \*Hiçkimse-yi gör-ür-se-n, ban-a haber ver.

anybody-A see-aor-cond-2sg I-D news give

Intended reading: 'If you see anybody, let me know'

(Kelepir 2001: 124)

Note that the elided part in (20a) is shown below:

27. Kimse < . . . [NegP gel-**me**-di >

anybody                    come-NEG-PAST

'Anybody <didn't come>'

---

<sup>44</sup> I am indebted to Turgay Bayındır and Gülfer Göze for their judgements.

The fact that negation does not exist in the antecedent (interrogative) clause would mean that parallelism with respect to **polarity** –in both form and semantic aspects- is not obligatory in fragment answers. However, Merchant (2005) notes that it's semantic parallelism –i.e., **e-givenness**- that matters for ellipsis in fragment answers, based on the following example (ibid., p. 696):

28. A: After John lost his job, what was he like?  
B: Hard to live with.

where the elided site is:

29. [Hard to live with] <John was *t*>

(ibid. p. 696)

In (29), the elided part is structurally/formally different from the antecedent clause in (28A): was like  $\neq$  was. However, elision is licensed because both the elided part and the antecedent clause are not semantically non-parallel.

In our case, I will take the grammaticality of N-words as fragment answers as showing that the elided clause is semantically parallel to the antecedent clause. Since the N-words are not inherently [+negative], no violation of semantic parallelism raises. Then, to support this take, we need a syntactic account of Negative Concord. In the following subsections, I will summarize a couple of theories of Negative Concord, with a special emphasis on occurrence of N-words as fragment answers, and show that Zeijlstre's

(2004, 2008) analysis is good for my point since it gives a syntactic analysis of Negative Concord.

*Watanabe 2004*

Watanabe (2004) explains this puzzle by contending that NCIs are inherently negative – not requiring licensing by any other element in a clause- and that clausal negation is fake, i.e. it does not have semantic import. So, he concludes, both the antecedent clause and the elided clause are parallel semantically since both are non-negative.

However, Giannakidou (2006) notes that in languages such as Catalan, Spanish<sup>45</sup> and Italian, N-words occur in yes/no questions, concluding that N-words are not inherently negative –since yes/no questions are not negative statement. This is a problem for Watanabe (2004), who takes N-words (NCI, in his terms) as inherently negative statements.

*Merchant 2004*

Merchant (2004), on the other hand, gives similar ‘fragment answers’ data from Greek and Irish, without making any distinction between NPIs and N-words; he does not discuss the implications of the data with respect to parallelism, either. N-words in Greek need to be internal to a clause and c-commanded by negation, and they can be fronted:

30. TIPOTA            dehn idha.  
    *n.thing.emphatic not I.saw*

---

<sup>45</sup> Note that N-words can occur as fragment answers in Spanish.

I didn't see anything.

31. LEKSI dhen ipe!

*word not he.said*

He didn't say a word!

(Merchant 2005: 691-692)

He also notes that these N-words can occur as fragment answers (p. 692):

32. Q: Ti idhes?

*what you.saw*

What did you see?

A: TIPOTA.

*n-thing.emphatic*

Nothing.

33. Q: Ti eagine? Ipe tipota oli tin nixta?

*what happened? he.said anything all the night*

What happened? Did he say anything all night?

A: LEKSI!

*word*

Not a word!

In Irish, he notes, N-words can be fronted in non-elliptical sentences (ex. 34), and they can occur as fragment answers (ex. 35) (p. 692):

34. Rud ar bith ní-or cheannaigh mé.

*thing any NEG[PAST] bought I*

I didn't buy anything.

35. Q: Caidé (a) cheannaigh tú?

*what C bought you*

What did you buy?

A: Rud ar bith.

*thing any*

Nothing.

Merchant (2004) gives the Greek and Irish data to argue that only N-words that can be left-dislocated can appear as fragment answers. English NPIs, he notes, cannot appear as fragment answers (691):

36. A: What didn't Max read?

B: \*Anything.

37. a. Max didn't read anything.

b. \*Anything, Max didn't read.

He concludes that Greek and Irish N-words can be left-dislocated and so they can occur as fragment answers, as well.

However, N-words in Turkish cannot be left-dislocated/scrambled (38b taken from Şener (2007: 3)):

38. a. i. Hasan (hiç)kimse-yle konuş-ma-dı.

anybody-COMM talk-NEG-PAST



‘Hasan didn’t talk to anybody.’

ii. \*(Hiç)kimse-yle, Hasan konuş-ma-di.

b. \**Kimse-yi* Cem [Pelin-in *t<sub>i</sub> gör-düğ-ün-ü*] bil-mi-yor.

anybody<sub>ACC</sub> Cem<sub>NOM</sub> P<sub>GEN</sub> see<sub>NOML-3sg.POSS-ACC</sub> know<sub>NEG-PRES</sub>

‘*Cem doesn’t know that Pelin saw anybody.*’

Yet, they can occur as fragment answers (ex. (20a) repeated as ex. (39)):

39. Q: Kim gel-di?

who<sub>NOM</sub> come<sub>PAST-3SG</sub>.

‘Who came?’

A: (Hiç)kimse.<sup>46</sup>

anybody<sub>NOM</sub>

---

<sup>46</sup> The N-word bears focus stress. Topicalized elements cannot bear focus stress, for instance. The following shows that an N-word can be focused in non-elliptical structures, where focused phrases are underlined and topicalized phrases are in italics in B’s sentence (thanks to V. Hacquard for raising the possibility of this sentence):

i. A: Ayşe ile Fatma-yı kim gör-müş?

with -ACC who see-HEARSAY.

‘Who, reportedly, saw Ayşe and Fatma?’

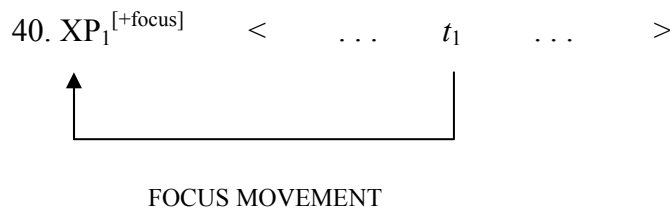
B: *Ayşe-yi*, Tolga gör-müş, *Fatma-yı*, kimse gör-me-miş.

-ACC see-HEARSAY -ACC anyone see-NEG-HEARSAY

‘Ayşe, Tolga saw (reportedly), and, Fatma, no one saw (reportedly).’

It seems that there is no correlation between left-dislocation of an N-word and its occurring as a fragment answer (at least) in Turkish. In conclusion, Merchant's account for (non-)occurrence of N-words as fragment answers cannot account for Turkish facts.

It is also puzzling how come fragment answers can be displaced under 'Move + Delete' analysis. Since fragment answers are [+focus], apparently, they undergo focus movement:



In non-elliptical clauses, however, fronted/scrambled elements cannot be [+focus], but [+topic] (Erguvanlı-Taylan 1984, among others), on the contrary:

41. ✓Ali-yi<sub>2</sub><sup>[+topic]</sup>/\*Ali-yi<sub>2</sub><sup>[+focus]</sup> Hasan dün  $t_1$  gör-müş.  
 -ACC -ACC yesterday see-HEARSAY  
 'Ali, Hasan saw yesterday (apparently).'

If we follow Ince (2008), a FocusP has to be merged above an elision site in sluicing/fragment answers so that the new information unit –namely, wh-phrases or fragment answers- bearing [+focus] feature can be pronounced. In sum, N-words cannot be fronted to pre-Subject position (ex. 38) because they cannot be topicalized; however, they can occur as fragment answers because they can be focused.

*Zeijlstra 2004, 2008*

To explain non-occurrence of any parallelism violation, I will follow Zeijlstra (2004, 2008), who takes Negative Concord (NC) as syntactic agreement:

42. NC is an Agree relation between a single feature [iNEG] and one or more features [uNEG].

(Zeijlstra 2008: 20)

For Zeijlstra, n-words are semantically non-negative, but they are formally negative in that they bear uninterpretable negation features [uNEG]. He (2008: 21) gives the following representation for n-words:

43.  $[[n-Q]] = \lambda P.[Q(x) \ \& \ P(x)]$      where  $Q \in \{\text{Person}', \text{Thing}', \text{Place}' \dots\}$

In this system, a (covert) negation Operator  $Op_{\neg}$  bears interpretable Neg features [uNEG], and the negation marker and n-words bear uninterpretable Neg features [uNEG] in strict NC languages. In non-strict NC languages, a negation marker is the phonological realization of the negation operator, and it bears interpretable Neg features [iNEG].

One difference between Non-strict NC languages and Strict NC languages is that negation behaves differently with respect to the scope of quantifying DPs. In Czech, for example, although *moc* ‘much’ c-commands the negative marker, it is outscoped by negation; however, in the same configuration in Italian, negation does not outscope *molto* ‘much’. Zeijlstra (2008), thus concludes that the negation marker *non* is the phonological

realization of  $Op_{\neg}$ , whereas the negation marker *ne* in Czech is not. Based upon this, he concludes that languages like Italian are non-Strict NC languages and languages like Czech are Strict NC languages:

44. a. Milan moc *nejedl* Czech  
 Milan much NEG.eat.PERF  
 $\neg > \text{much}$ : ‘Milan hasn’t eaten much’  
 $*\text{much} > \neg$ : ‘There is much that Milan didn’t eat’
- b. Molto *non* ha mangiato Gianni Italian  
 Much NEG has eaten Gianni  
 $*\neg > \text{much}$ : ‘Gianni hasn’t eaten much’  
 $\text{much} > \neg$ : ‘There is much that Gianni didn’t eat’

(Zeijlstra 2008: 23)

It’s hard to test this for Turkish because Turkish is a head-final language, so it is impossible whether *çok* ‘much’ c-commands negation that linearly follows it. However, the only interpretation is the one where negation takes scope over *çok*:

45. Ahmet çok ye-me-di.  
 much eat-NEG-PAST  
 $\neg > \text{much}$ : ‘Ahmet hasn’t eaten much’  
 $*\text{much} > \neg$ : ‘There is much that Ahmet didn’t eat’

Zeijlstra (2004, 2008) also notes that no non-Strict NC language ‘exhibits so-called True Negative Imperatives (TNI’s)’, where TNI refers to an imperative that bears a negative marker as its finite form does:

46. a. (Ty) *nie* pracujesz  
       you NEG work.2SG  
       ‘You aren’t working’
- b. Pracuj!  
       Work.2SG.IMP  
       ‘Work!’
- c. *Nie* pracuj!  
       ‘Don’t work!’

Polish

Turkish also has TNIs where the negation suffix *-mE* is the rightmost element (47c) as in finite inflections (47a):

47. a. Biz gel-me-di-k.  
       we come-NEG-PAST-1P  
       ‘We didn’t come.’
- b. Gel-in!  
       come-IMP2P  
       ‘Come!’
- c. Gel-me-yin!  
       Come-NEG-IMP2P  
       ‘Don’t come!’

To follow Zeijlstra (2004, 2008), let us assume that Turkish is also a Strict NC language. Following (40), we can give a schema of NC-licensing as follows, where the Negation Operator multiple-agrees with the Negation Marker and the N-word:

48. a.  $OP_{\neg[iNEG]} \dots \text{Negation Marker}_{[uNEG]} \dots \text{N-word}_{[uNEG]}$

b.  $OP_{\neg[iNEG]} \dots \text{Negation Marker}_{[uNEG]} \dots \text{N-word}_{[uNEG]}$



MULTIPLE AGREEMENT

Since the licensing of NC is just a syntactic operation and the N-word or the Negation Marker is not semantically negative, no violation of parallelism occurs in fragment answers because the elided parts are semantically parallel.<sup>47</sup>

49. a.  $OP_{wh} \dots wh_1 \dots < \dots t_1 \dots >$

b.  $OP_{\neg} \dots \text{N-word}_2 \dots < \dots t_2 \dots >$

---

<sup>47</sup> Interestingly, N-words are not licensed in (forward) gapping structures where the antecedent clause is non-negative:

- i. Ahmet Ayşe ile dans etti, Tolga kimse ile \*(dans etmedi).  
 with dance did nobody with dance didn't.do  
 'Ahmet danced with Ayşe, and Tolga didn't dance with anybody.'

One way to account for this would be to assume that the structure is bad because the correlate of the N-word is not bound by any operator, which would violate parallelism.

In summary, under Zeijlstra’s theory, we can account for how N-words can occur as fragment answers as well as why no violation of parallelism occurs.<sup>48</sup>

### 2.2.4 Binding Ambiguity

A structure as follows is ambiguous in that the null possessive pronoun can be bound by either of the R-expressions that c-command the null pronoun:

50. Ahmet<sub>1</sub> Hasan-in<sub>2</sub> *pro*<sub>1/2</sub> karı-sı-yla telefon-da konuştuğunu sandı.  
 -GEN wife-POSS3S-COMM telephone-LOC talked thought  
 ‘Ahmet<sub>1</sub> thought that Hasan<sub>2</sub> talked to his<sub>1/2</sub> wife on the phone.’

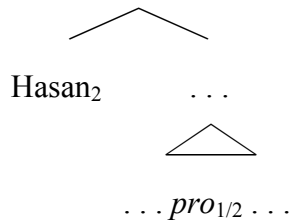
Both *Ahmet* and *Hasan* c-command *pro*, and neither is in the Minimal Binding Domain – the first DP/IP that contains the relevant pronominal element- of *pro*, so they can bind it:

- 51.
- 
- ...
- Ahmet<sub>1</sub>      ...

<sup>48</sup> Two N-words cannot occur as fragments in the same structure (Ilknur Oded, p.c.):

- Q: Kim kim-le dans et-ti?  
 who who-COMM dance do-PAST  
 ‘Who danced with who?’
- A: \*Hiçkimse hiçkimse-yile.  
 anybody anybody-COMM  
 ‘Nobody with anybody.’

I have nothing to say about this, I will leave it as an open issue for now.



A non-c-commanding R-expression cannot bind the same null pronoun.<sup>49</sup>

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<sup>49</sup> The c-command requirement, as H. Lasnik points out (p.c.), does not follow from any of the binding principles A, B or C. Cross-sententially, there is no c-command relation between a null pronoun and its antecedent in Turkish:

- i. Ahmet<sub>1</sub> geldi . Pro<sub>1</sub> odasına gitti.  
       Came            his.room went  
       ‘Ahmet came. He went to his room.’

However, in cross-sentential cases, the antecedent and the null pronoun have to be in parallel position. In the following example, the antecedent is in subject position, and the null pronoun is in Object position. The structure is ungrammatical:

- ii. Ahmet<sub>2</sub> gelmedi . Ayşe onu<sub>2</sub>/\*pro<sub>2</sub> aradı.  
       didn.t.come            him            called  
       ‘Ahmet didn’t come. Ayşe called him.’

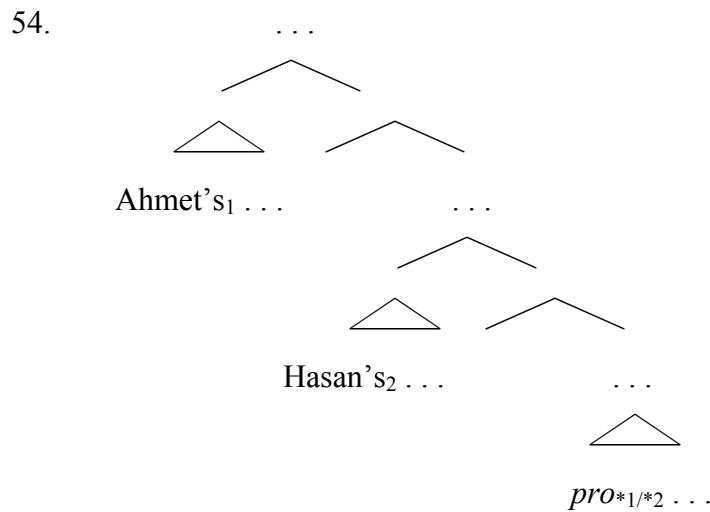
It looks like a null pronoun can take an antecedent in the same position cross-sententially, and its sentence-internal antecedent needs to c-command it in Turkish. These requirements, however, do not follow from the binding principles. I will leave the source of these conditions as an open issue.



52. Ahmet-in<sub>1</sub> kızkardeş-i Hasan-in<sub>2</sub> *pro*\*<sub>1/2</sub> karı-sı-yla telefon-da  
 -GEN sister-POSS3S -GEN wife-POSS3S-COMM telephone-LOC  
 konuştuğunu sandı.  
 talked thought  
 ‘Ahmet’s<sub>1</sub> sister thought that Hasan<sub>2</sub> talked to his\*<sub>1/2</sub> wife on the phone.’

53. Ahmet<sub>1</sub> Hasan-in<sub>2</sub> kızkardeş-i-nin *pro*<sub>1/\*2</sub> karı-sı-yla telefon-da  
 -GEN sister-POSS3S-GEN wife-POSS3S-COMM telephone-LOC  
 konuştuğunu sandı.  
 talked thought  
 ‘Ahmet<sub>1</sub> thought that Hasan’s<sub>2</sub> sister talked to his<sub>1/\*2</sub> wife on the phone.’

Examples (52 & 53) show that c-command is required for binding of possessive null pronouns in Turkish:



Now, let us look at fragment answer in similar configurations:

55. A: Ahmet<sub>1</sub> Hasan-ın<sub>2</sub> **kim-le** telefon-da konuştuğunu sandı?  
 -GEN who-COMM telephone-LOC talked thought

‘Who did Ahmet think that Hasan talked to on the phone?’

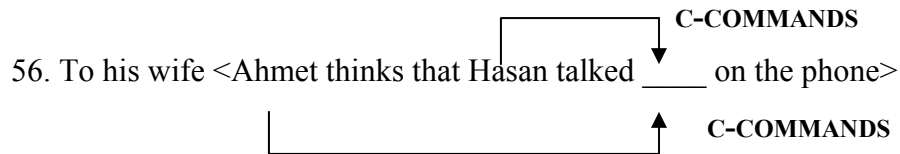
B: *pro*<sub>1/2</sub> karı-sı-yla.

wife-POSS3S-COMM

‘With his wife.’

The null pronoun *pro* can be bound by either of the R-expressions in the antecedent clause. This shows that at some stage of the derivation it has been c-commanded by them.

This gives us clear evidence that there is syntactic structure in the elided site:



However, a null possessive pronoun cannot be bound by a non-c-commanding R-expression:

57. A: Ahmet<sub>1</sub> [Hasan-ın<sub>2</sub> karı-sı-nın<sub>3</sub>] **kim-le** telefon-da  
 -GEN wife- POSS3S-GEN who-COMM telephone-LOC

konuştuğunu sandı?

talked thought

‘Who did Ahmet think that Hasan’s wife talked to on the phone?’

B: *pro*<sub>1/\*2/3</sub> kardeş-i-yle.

brother/sister-POSS3S-COMM

‘With his/her brother/sister.’

### 3. Fragment Answers and Islands

#### 3.1. English

Merchant (2005) notes that since English is a *wh*-movement language and *wh*-phrases cannot be extracted out of islands he cannot check whether a fragment answer to a *wh*-question is island-(in)sensitive. So, the antecedent clause –a *wh*-question- would be ungrammatical. For this reason, he looks at the following structures and notes that fragment answers are island-sensitive in English. Although I will explain Merchant’s account for island-sensitivity of fragments in English in section 3.3 in detail, I would like to give a brief account here. Merchant (2005) assumes that fragment answers move to a position higher than sluiced *wh*-phrases, but it’s the same site elided in both elliptical structures: TP –complement of C. Since a fragment answer moves to Spec, FP from a Spec, CP, a defective copy remains in the non-elided part of a structure. That’s basically why fragments are island-sensitive in English:

58. a. Does Abby speak the same Balkan language that *Ben* speaks?

b. \*No, *Charlie*.

c. No, she speaks the same Balkan language that *Charlie* speaks.

59. a. Did Ben leave the party because *Abby* wouldn’t dance with him?

- b. \*No, *Beth*.
- c. No, he left the party because *Beth* wouldn't dance with him.

60. a. Did Abby vote for a *Green Party* candidate?
- b. \*No, *Reform Party*.
  - c. No, she voted for a *Reform Party* candidate.

(ibid., p. 688)

61. a. Did Abby get '*The Cat in the Hat*' and 'Goodnight Gorilla' for her nephew for his birthday?
- b. \*No, '*The Lorax*'.
  - c. No, she got '*The Lorax*' and 'Goodnight Gorilla' for her nephew for his birthday.

(p. 689)

However, fragment answers in these questions are not bare fragment answers in that they are not answers to a *wh*-question. Rather, they are in a contrastive relation with their correlate: *Ben* vs. *Charlie* (58), *Abby* vs. *Beth* (59), *Green Party* vs. *Reform Party* (60), and *The Cat in the Hat* vs. *The Lorax*. The island-sensitivity in these examples is not a property of fragment answers but rather of contrastive elements. For instance, although sluicing is island-insensitive in English (62a-b) (Ross, 1969; Lasnik, 2001; Merchant, 2001), sluicing of *wh*-phrases in a contrastive relation with their correlate is island-sensitive (cf. 63 with 66):

62. a. *Relative Clause Island*
- i. They want to hire someone who speaks a Balkan language, but I don't remember which.

ii. \*I don't remember which (*Balkan language*) they want to hire someone [who speaks \_\_\_\_].

b. *Left-branch (attributive adjective case)*

i. She bought a big car, but I don't know how big.

ii. \*I don't know how big she bought [a \_\_\_\_ car].

(Merchant 2008: 136)

63. a. She has five CATS, but I don't know how many DOGS.

b. The channel was 15 feet wide, but I don't know how deep

c. Abby knew which of the MEN Peter had invited, but she didn't know which of the WOMEN.

(Merchant 2001: 36)

64. a. Abby speaks GREEK, but I don't remember what OTHER languages.

b. She met RINGO, but I don't know who else.

c. He said he talked to ABBY, but I don't know who else ~~he said he talked to~~.

d. John met most applicants, but I can't remember exactly which ones.

65. a. \*Abby wants to hire someone who speaks GREEK, but I don't remember what OTHER languages she wants to hire someone who speaks.

b. \* The radio played a song that RINGO wrote, but I don't know who else.

(Merchant 2008: 148)

66. \*John talked to a man who adopted three CATS, but I don't know how many DOGS ~~John talked to a man who adopted~~.

In (66), the contrasted elements are CATS and DOGS. Both occur in a Relative Clause island. However, 'how many DOGS' cannot be extracted out of the Relative Clause

island. In summary, extraction of contrastively-focused elements out of islands in ellipsis is illicit (in English)—whether these elements are (in) wh-phrases or not.

The second set of structures that Merchant (2005) looks at is multiple wh-questions where the second wh-phrase is in-situ in an island. Since the first wh-phrase is merged in the matrix clause, it moves to Spec, CP in the matrix clause, so that the second wh-phrase in the island can remain in situ. Fragment answers to these questions are also ungrammatical (67c), whereas fragment answers to questions where the second wh-phrase is not in an island are grammatical (68a-b):

67. a. Which committee member wants to hire someone who speaks which language?  
b. Abby wants to hire someone who speaks Greek and Ben wants hire someone who speaks Albanian.  
c. \*Abby Greek, and Ben Albanian.
68. a. Who's more likely to be influencing who? The CIA John Foreman, or John Foreman the CIA?  
b. Which lawyer said he was representing which car criminal? Cochran Milosevic, and Dershowitz Sharon.

(Merchant 2005: 689)

However, these data do not show that fragment answers are island-sensitive, either. Again, although sluicing is island-insensitive, cross-clausal multiple sluicing is illicit (see Merchant 2001).<sup>50</sup>

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<sup>50</sup>Notice that (68b) is grammatical although fragment answers and their correlate wh-phrases are in different clauses. However, in these cases the subject of the complement clause needs to be co-indexed

69. \*Some student said that John was talking to some professor, but I don't know which student to which professor.

In conclusion, ungrammaticality of (67c) DOES NOT show that fragment answers are island-sensitive. All in all, Merchant's (2005) data do not show that 'bare' fragment answers are island-sensitive in English. Therefore, there is no evidence for island-sensitivity of 'bare' fragment answers in English.

### 3.2. Turkish

Since the case of contrasted fragment answers is more complex and depends on other factors, I will ignore them for discussion w.r.t island-(in)sensitivity and focus on bare fragment answers –i.e., those that answer a *wh*-question in Turkish. Interestingly, Turkish is a *wh*-in-situ language, and a *wh*-phrase in an island can take scope over the matrix clause, unlike English. A fragment answer whose correlate is inside an island is grammatical, which means that fragment answers in Turkish are island-insensitive.<sup>51</sup> Below is a list of what type of islands fragment answers are extracted out. In all the

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with the matrix Subject (cf. 68b and 69) (see Nishigauchi, 1998). However, I am not sure about the resolution of the elided clause. Native speakers prefer the local reading 'Cochran was representing Milosevic, and Dershowitz was representing Sharon' rather than 'Cochran said he was representing Milosevic, and Dershowitz said he was representing Sharon'.

<sup>51</sup> Fragment answers are reported to be island-insensitive in Japanese (Nishigauchi 2006) and Korean (Park 2005), as well.

following examples, the *wh*-phrase is in-situ in an island but takes scope over the matrix clause.

### 3.3. Fragments out of Islands

#### 3.3.1 Relative Clauses

##### Subject Relative Clauses

70. A: Hasan [**ne-yi** gezdir-en] bir çocuk-la konuştu?  
what-ACC walk-SR one child-COMM talked

‘What is it that Hasan talked to a child who walked it?’

B: Köpeğ-i

dog-ACC-

‘The dog!’

71. A: Ali [**kim-e** bak-an] bir adam-I arıyor?  
who-DAT look.after-SR one man-ACC looking.for

‘Who is it that Ali is looking for a man who takes care of him?’

B: Dede-m-e

grandfather-POSS1S-DAT

‘My grandfather!’

##### Non-Subject Relative Clause

72. A: Ahmet [**kim-in** bak-tığı] bir köpeğ-i tedavi ediyor?  
who-gen look.after-NSR one dog-ACC treatment doing

‘Who is it that Ahmet is treating a dog that he takes care of?’

B: Ayşe-nin!

-GEN



‘Ayşe!’

73. A: Ahmet [**ne-yin** ısır-dığı] bir çocuğ-u tedavi ediyor?

what-gen bite-NSR one child-ACC treatment doing

‘What is it that Ahmet is treating a child that it bit?’

B: Yılan-ın!

snake-GEN

‘A snake!’

### 3.3.2 Adjunct Clauses

#### Finite Adverbial Clauses

##### Reason

##### *Diye*

74. A: Hasan [**kim-i** göreceğiz diye] bir ekmek daha almış?

who-ACC will.see for one bread more bought

‘Who is it that Hasan bought another loaf of bread because we will see him?’

B: Mehmed-i!

-ACC

‘Mehmed!’

75. A: Hasan [**kim-e** bakacağız diye] bir ekmek daha almış?

who-DAT will.look-after for one bread more bought

‘Who is it that Hasan bought another loaf of bread because we will take care of him?’

B: Anne-m-e!

mother-POSS3S-DAT

‘My mother!’

*için*

76. A: Hasan [**kim-i** göreceğimiz için] bir ekmek daha almış?  
who-ACC will.see for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will see him?’

B: Mehmed-i!  
-ACC  
‘Mehmed!’

77. A: Hasan [**kim-e** bakacağımız için] bir ekmek daha almış?  
who-DAT will.look-after for one bread more bought  
‘Who is it that Hasan bought another loaf of bread because we will take care of him?’

B: Anne-m-e!  
mother-POSS1S-DAT  
‘My mother!’

Temporal

*-kEn*

78. A: Ali [**kim-e** bakarken] uyuyakalmış?  
who-DAT looking-at.while happened.to.fall.asleep  
‘Who is it that Ali fell asleep while he was looking at him/her?’

B: Ecem-e!  
-DAT  
‘Ecem!’

79. A: Ali [**ne-yi** izlerken] uyuyakalmış?  
what-ACC while.watching happened.to.fall.asleep  
‘What is it that Ali happened to fall asleep while watching it?’

B: Kurt-lar Vadisi-ni!  
wolf-PL valley-ACC  
'The Valley of Wolves!'

*(y)Inca*

80. A: Ali [**kim-e** bakınca] duygulandı?  
who-DAT look-at.when felt.emotional  
'Who is it that Ali felt emotional when he looked at her?'

B: Eski eş-in-e.  
former spouse-POSS3S-DAT  
'His ex-wife.'

81. A: Ali [**ne-yi** izleyince] duygulandı?  
what-ACC watch.when felt.emotional  
'What is it that Ali felt emotional when he watched it?'

B: Kırık Kalp-ler-i!  
broken heart-PL-ACC  
'Broken Hearts!'

*DIğ + Agr + dA*

82. A: Ali [**kim-e** baktığında] hüzünlendi?  
who-DAT looked-at.when felt.emotional  
'Who is it that Ali felt emotional when he looked at her?'

B: Nazan-a!  
-DAT  
'Nazan!'

83. A: Ali [**ne-yi** izlediğinde] hüzünlendi?

what-ACC watch.when felt.emotional

‘What is it that Ali felt emotional when he watched it?’

B: Binbir Gece-yi!

one.thousand.and.one night-ACC

‘1001 Nights!’

### *Dikça*

84. A: Siz [**kim-i** gördükçe] daha da sinirlendiniz?

you who-ACC saw.more more also got.upset

‘Who is it that the more you saw her the more you got upset?’

B: Berna-yı!

-ACC

‘Berna!’

85. A: Siz [**kim-den** azar işittikçe] daha da sinirlendiniz?

you who-ABL hear.more more also got.upset

‘Who is it that the more you heard rebuke from the more you got upset?’

B: Müdür-den!

manager-ABL

‘From the manager!’

### 3.3.3 If-Clauses

86. A: Uğur [Tolga kim-den borç al-ır-sa ] çok üzül-ecek.

who-ABL debt take-AOR-COND very get.sad-FUT

‘Who is it that Uğur will be very sad if Tolga borrows money from him?’

B: Kaan-dan!

-ABL

‘From Kaan!’

87. A: Ecem [Kaan kim-i ara-dı-y-sa ] çok kırıl-acak?  
who-ACC call-PST-COP-COND very get.heart.broken-FUT

‘Who is it that Ecem will be very heart-broken if Kaan called him?’

B: İbrahim-i !

-ACC

‘Ibrahim!’

### 3.3.4. Results and Discussion

All native speakers of Turkish found B’s answer grammatical in the examples above, which means that fragment answers are island-**insensitive** in Turkish in that the subjects not only found fragments out of islands grammatical but also received the matrix clause as the resolution space. So, for example, they reported that they get only the matrix clause as the resolution space (88a-89a) and that they cannot get the local domain (i.e., the clause inside the island that includes the fragment answer (as its argument)) (90b-91b).<sup>52</sup>

88. A: Hasan [**ne-yi** gezdir-en] bir çocuk-la konuştu?  
what-ACC walk-SR one child-COMM talked

‘What is it that Hasan talked to a child who walked it?’

B: Köpeğ-i

dog-ACC

‘The dog!’

a. Hasan talked to a boy that walked THE DOG.

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<sup>52</sup> Fox (2000) and Agüero-Bautista (2007) remark that in certain cases the missing part in elliptical structures is a more local domain/clausal part of the antecedent clause. To be sure that that is not the case in fragment answers, I checked with my consultants what reading they get.

b. The/A boy walked THE DOG.

89. A: Ali [**kim-e** bak-an] bir adam-ı arıyor?

who-DAT look.after-SR one man-ACC looking.for

‘Who is it that Ali is looking for a man who takes care of him?’

B: Dede-m-e

grandfather-POSS1S-DAT

‘My grandfather!’

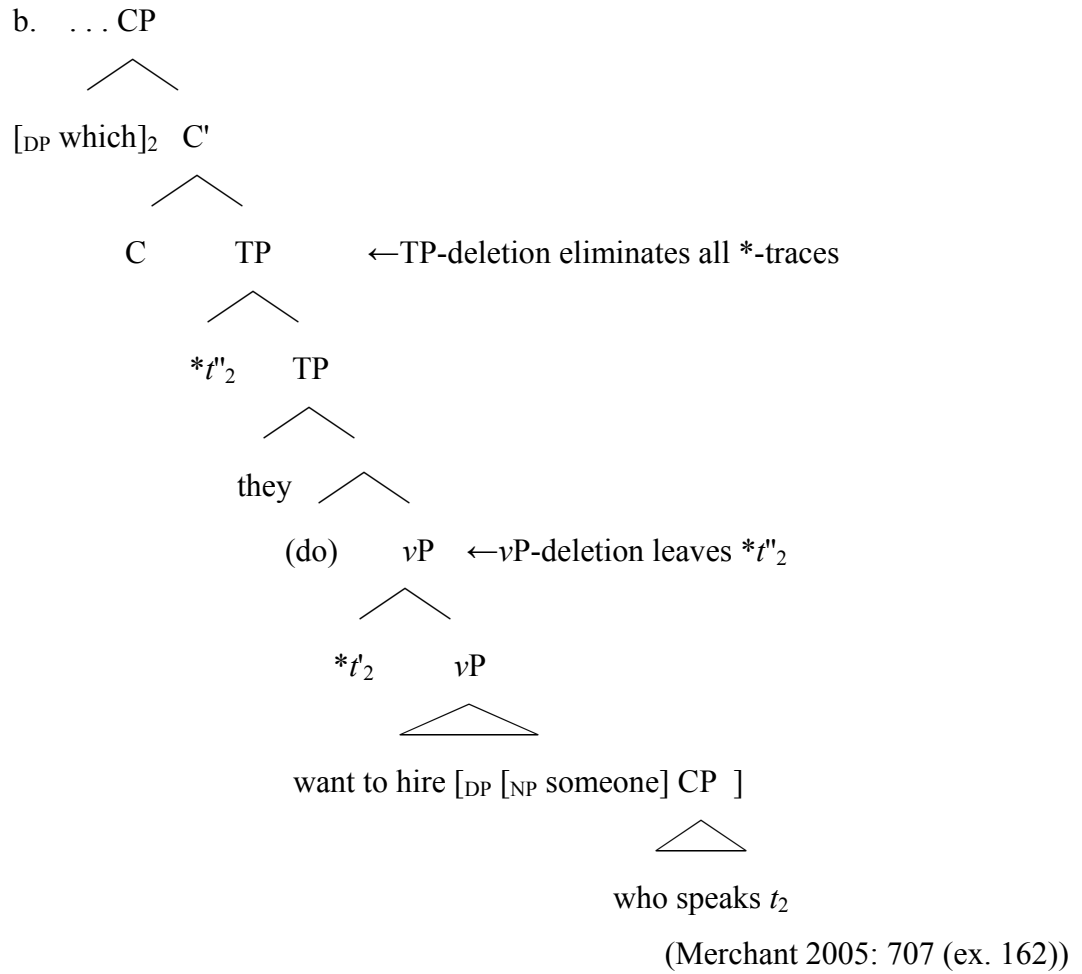
a. Ali is looking for a man who looks after my grandfather.

b. The/A man looks after my grandfather.

#### 4. Island Repair in Fragments in Turkish

To account for the difference between sluicing and fragment answers in English, Merchant (2005) contends that *wh*-phrases in sluicing and fragment answers move to different positions. For Merchant, it’s a Complementizer head that has the [E]-feature that licenses deletion of the TP-complement of C. In sluicing, a *wh*-phrase moves to Spec, CP; fragment answers, on the other hand, move to Spec, FP above CP. Merchant also assumes that when a phrase crosses an island, it and all its intermediary copies between the island and its final landing site get \*-marked. An island violation is PF-repaired as long as all the intermediary \*-marked copies of a phrase are included within an elision site. So, sluicing is island-insensitive in English because all the intermediary \*-marked copies of a *wh*-phrase are within the TP-complement of the C head:

90. a. They want to hire someone who speaks a Balkan language, but I don’t remember which (\*they do).

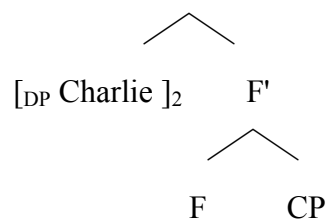


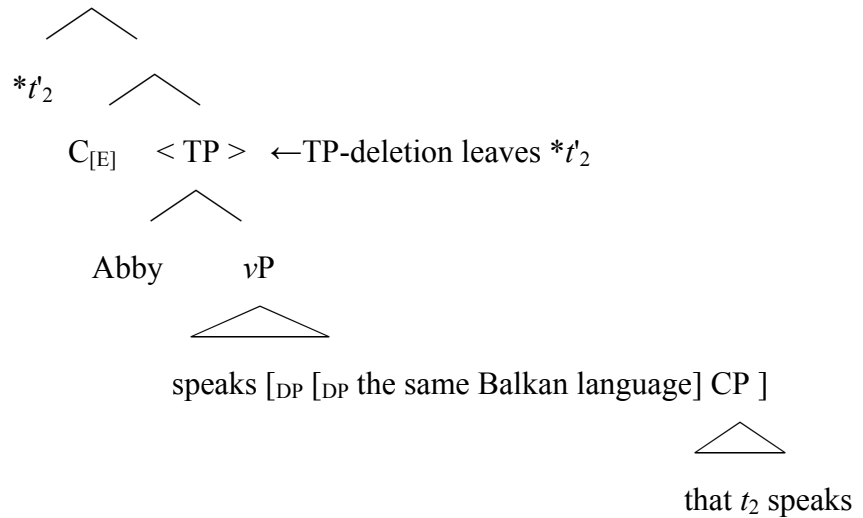
However, in fragment answers, there is one more intermediary \*-marked copy, namely in Spec, CP that is not included in the elision site, namely TP (ibid., p. 708):

91. a. Does Abby speak the same Balkan language that *Ben* speaks?

b.\*No, Charlie

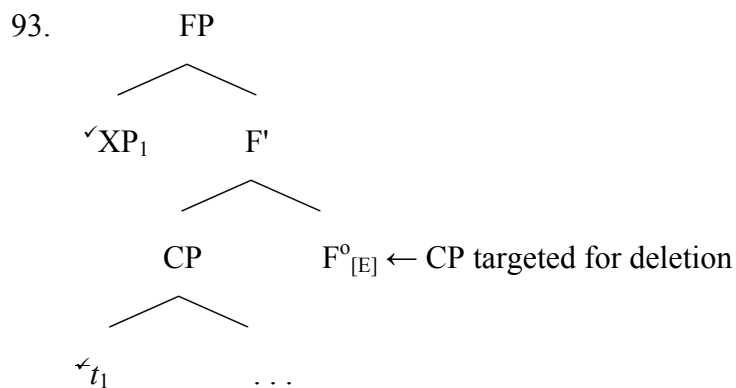
92. ... FP





However, as I have shown in section 3.1, there is no argument for island-sensitivity of ‘bare’ fragment answers in English, I believe that Merhcant’s analysis is invalid for these fragment answers in English. In the remainder of this section, I will explain the island-insensitivity of fragment answers in Turkish, which is similar to the analysis of the island-insensitivity of sluicing in the same language, as given in the previous chapter:

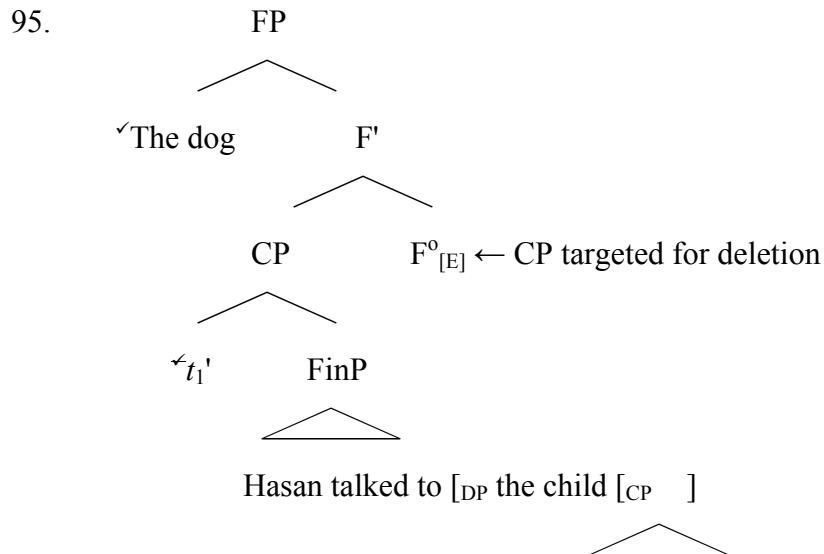
I propose that in fragment answers in Turkish, the F head has the [E]-feature. So, its complement CP is elided including all the defective copies of the moved element. So, fragment answers are island-insensitive in Turkish.





An example where a fragment answer is extracted out of an island is shown below ((72) repeated as (94)):

94. A: Hasan [**ne-yi** gezdir-en] bir çocuk-la konuştu?  
 what-ACC walk-SR one child-COMM talked  
 ‘What is it that Hasan talked to a child who walked it?’  
 B: Köpeğ-i  
 dog-ACC-  
 ‘The dog!’



who walked  $\checkmark_{t_1}$

As shown in (95), since all the defective copies are included in the elision site and the only defective copy of the fragment answer outside the elision site is in Spec, FP and therefore repaired by  $F^0$ , the structure is grammatical.

### 5. Multiple Fragment Answers

‘Multiple fragment answer’ structures are those with more than one phrase as fragment answers:

96. Q: Kim kim-i ara-dı?  
who who-ACC call-PAST  
‘Who called who?’

A: Ayşe Fatma-yı <ara-dı>.  
-ACC call-PAST  
‘Ayşe (called) Fatma.’

One crucial question regarding multiple fragments answers is whether they are gapping structures. I could find one piece of evidence that multiple fragments answers are not gapping: Fragments answers can be embedded while the antecedent clause is not (97), whereas that is not possible in gapping (98):

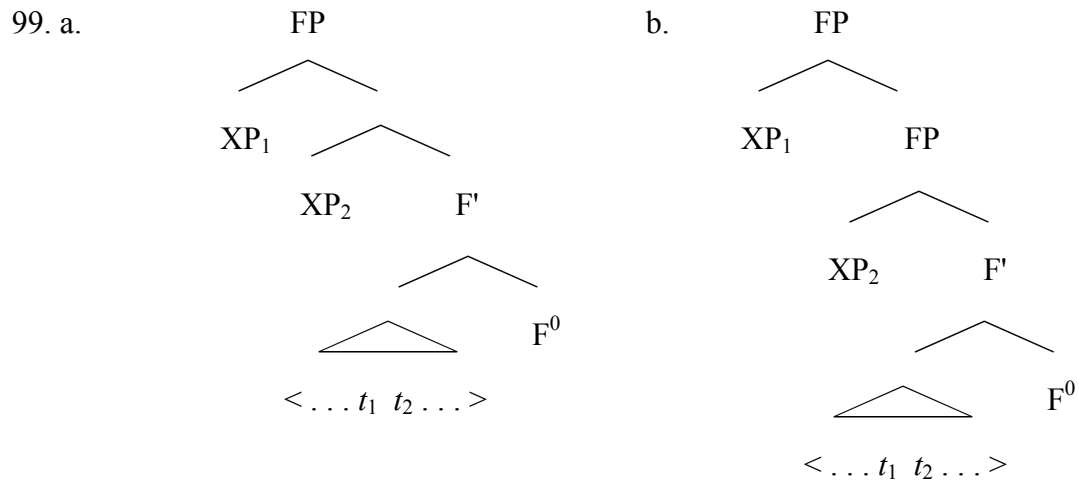
97. A: Ibrahim kim-e ney-i verdi?  
who-DAT what-ACC gave  
‘Who did Ibrahim give what?’

B: Kaan-a kitab-ı diye biliyorum.

-DAT book-ACC saying I.know  
 ‘I thought that (Ibrahim gave) the book to Kaan.’

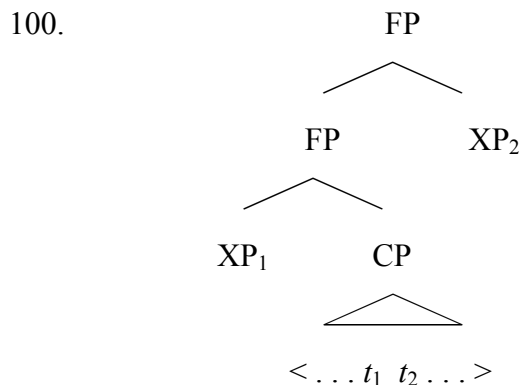
98. \*[Ibrahim Tolga-ya dergi-yi verdi], [Kaan-a kitab-ı diye  
 -DAT magazine-ACC gave -DAT book-ACC saying  
 biliyorum].  
 I.know  
 ‘Ibrahim gave Tolga the magazine, and I thought that (he gave) Kaan the book.’

As to the derivation of multiple fragment answers, there are three options. The first option is that all fragment answers move uni-directionally (i.e., leftward) to multiple Specifier positions of the same functional layer, each moves to the Specifier of a functional phrase that projects recursively:<sup>53</sup>



<sup>53</sup> This distinction is irrelevant to my analysis.

In the second option, the first XP moves leftward, and the second XP moves rightward – i.e., right-adjoins to a clause (Lasnik, in press):



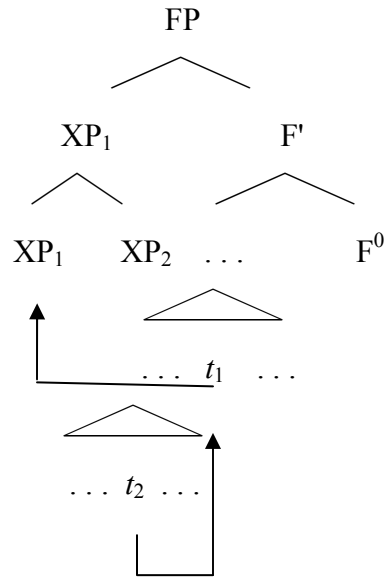
However, an element in postverbal position in Turkish cannot be [+focus] (see Erguvanlı-Taylan 1984, among others):

101. \*Ahmet gör-dü , ALİ-Yİ.  
           see-PAST           -ACC  
           ‘Ahmet saw ALİ.’

Since the second XP also is [+focus], it cannot move to the right periphery of the clause in (102). So, this option does not work for multiple fragment answers in Turkish.

Under the third option, the second XP could right-adjoin to the first XP forming a cluster/amalgam, and this cluster could move to Spec, FP (Saito 1994, Takahashi 1994, Grewendorf 2001):

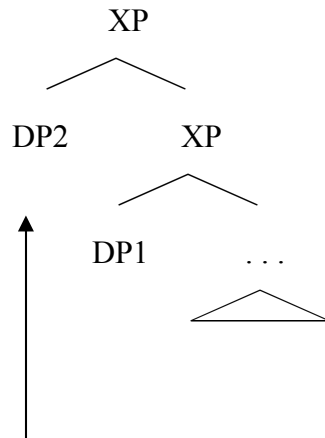
102.



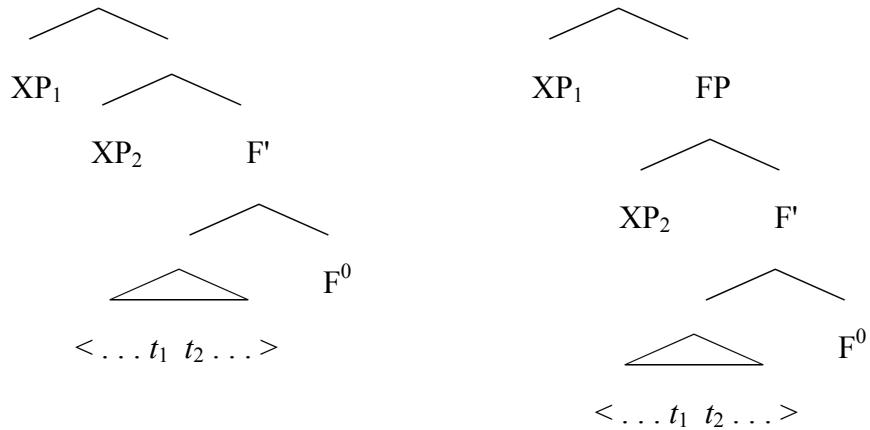
For Takahashi, adjunction of a phrase to another that targets the same A-bar position is A-movement; however, it is not clear at all why adjunction has to be A-movement. Secondly, A-movement is to a Spec position, which is always leftward; then, it is not clear why this A-movement has to be rightward, whereas all other A-movements are leftward in the same language.

A new account is given by Nishigauchi & Fujii (2006). Following (Kayne 1994), they assume that adjunction is universally leftward. In their analysis, the lower member of the pair adjoins to the phrase that hosts the higher member in its Spec:

103.







6. Analyses of Fragment Answers

6.1. Bare-Copular Analysis (Saito 2004)

Saito (2004) claims that there is a null pronoun in Subject position in fragment answer structures and that these structures therefore do not involve any movement and deletion operation.

106. Kimi-wa [NP[TP dono sensei -kara moratta] tegami]-o nakusita no desu ka  
 you -TOP which teacher-from received letter -ACC lost that is Q  
 ‘You lost [the letter that you received from which teacher]’

107. *pro* H-sensei desu  
 -Prof. is

(Saito 2004: 43)

The evidence for this analysis is that the overt version of *pro* can also occur in the same position (p. 43):

108. (Sore-wa) H-sensei desu  
It -TOP -Prof. is  
'It is Prof. H.'

Under this analysis, a fragment answer would be represented as follows:

109. A: Ahmet kim-le sinema-ya git-ti?  
who-COMM theatre-DAT go-PST  
'Who did Ahmet go the movie with?'  
B: *pro* Ayşe-yle.  
-COMM  
'It's with Ayşe'

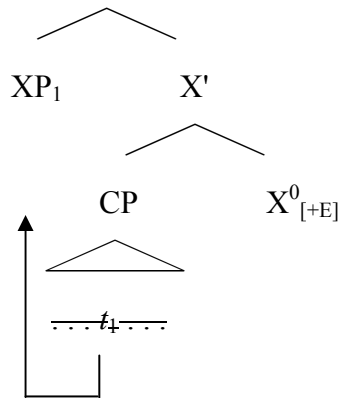
The overt form of the null pronoun *o* 'it/she/he' would also be expected as the Subject in the same structure, as in Japanese. However, that is ungrammatical:

110. B: \*O Ayşe-yle.  
it -COMM-  
'It's with Ayşe.'

So, the null-copula analysis does not account for fragment answers in Turkish. The correct analysis of fragment answers in Turkish is then the PF-ellipsis analysis where a fragment answer moves to Spec, FP, and the complement of FP is elided:

111. FP





### 7. Conclusion

In this chapter we have looked at fragment answers in Turkish. We have given evidence that they are derived by MOVEMENT + ELLIPSIS (Merchant, 2005; Nishigauchi, 2006; and Nishigauchi & Fujii, 2006). We also have seen that these structures are island-insensitive in Turkish. Fragment answers move to Spec, FP. Since  $F^0$  has [+E] feature, its complement CP is elided. Since  $F^0$  repairs the defective fragment answer in its spec, and all the other defective copies of the fragment answer are deleted in the elision site, island violations are ameliorated. We have also seen that fragment answers are not null copula structures and that multiple fragment answers cannot be gapping.

## **Chapter 4: Forward Gapping in Turkish**

## 1. Introduction

The aim of this chapter is to propose a minimalist analysis of forward Gapping structures<sup>54</sup> in Turkish as in (1) (see also Hankamer 1972, Kornfilt 2000).

1. Burak kütüphane-ye gitti, Mustafa (da) hastane-ye .<sup>55</sup>  
library-dat went also hospital-dat  
'Burak went to the library and Mustafa to the hospital.'

I will argue that these structures in Turkish are derived by elision of a matrix FinP after remnants move to the left periphery (Jayaseelan 1990; Kim 1997; Pesetsky 1982; Reinhart 1991; Sohn 1994; van den Wyngaerd 1998).<sup>56</sup> Gapping cannot occur in non-matrix (i.e. embedded clauses and DPs) structures because these non-matrix structures

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<sup>54</sup> I will refer to 'forward Gapping' as just 'Gapping' in the remainder of this chapter.

<sup>55</sup> Although the overt coordinator *ve* 'and' is possible in coordinations, the null form sounds more natural in Gapping structures, at least to my ear. As to *da* following the first remnant, it is optional. It cannot be the coordinator because it can co-occur with the overt coordinator *ve* in Turkish:

- i. Burak kütüphane-ye gitti, ve Mustafa (da) hastane-ye .  
library-dat went and also hospital-dat  
'Burak went to the library and Mustafa to the hospital.'

<sup>56</sup> Rizzi 1997, Hiraiwa & Ishihara 2002, Nishigauchi & Fujii 2006.

lack a Contrastive Focus head (ContrFoc<sup>0</sup>) with the relevant [+E(LLIPSIS)] feature to license elision of a site within their own projections, being defective with respect to projecting both TP and AspP.

## 2. Is There Gapping in Turkish?

To see whether there is Gapping in Turkish, I will check whether these structures have the (theory-neutral) properties of Gapping in English observed by Jackendoff (1971), Johnson (1996/2004) and Repp (2005). Due to the morphological and syntactic properties of Turkish, not all properties of Gapping observed in other languages can be observed in Turkish.

### 2.1. A Finite Verb (Phrase) Elided

A finite verb is generally deleted in Gapping structures:

2. Some ate natto and others ~~ate~~ rice. (Johnson 1996/2004)

A direct object or indirect object can be deleted alongside the verb in Gapping:

3. a. John gave a flower to Mary and Bill ~~gave a flower~~ to Sue.  
b. Tolga Ecem-e bir çiçek verdi, Tolga da Nur-a ~~bir çiçek verdi~~.  
-dat one flower gave also -dat one flower gave  
'Tolga gave Ecem a flower and Tolga (gave) Nur (a flower).'

### 2.2. Gapping is Restricted to Coordinations

Jackendoff (1971: 22) observes that (forward) Gapping occurs in English with the coordinators *and*, *or*, *nor* and *but* (ex. 4) and that it cannot occur with subordinating conjunctions (ex. (5)):

4. a. Sam plays the sousaphone, and Max the saxophone.  
 b. Either Sam plays the sousaphone or Jekyll the heckelphone.  
 c. Sam doesn't play sousaphone, nor Medusa sarrussophone.  
 d. ?Mary ate the peaches, but Harry the grapes.
  
5. a. \*Sam played tuba whenever Max sax.  
 b. \*McTavish plays bagpipe despite the fact that McCawley the contrafagotto d'amore.

In a similar way, in Turkish, Gapping occurs with coordinating conjunctions like *ve*,  $\emptyset$  (6), but not with subordinating conjunctions (7):

6. a. Burak kütüphane-ye gitti,  $\emptyset$  Mustafa (da) hastane-ye .  
           library-dat   went                           also hospital-dat  
           ‘Burak went to the library and Mustafa to the hospital.’  
 b. Burak kütüphane-ye gitti, ve Mustafa hastane-ye .  
           library-dat   went and                           hospital-dat  
           ‘Burak went to the library and Mustafa to the hospital.’  
 c. Ali korku filmlerin-i sever, Ayşe ise komedi filmlerin-i .  
           horror movies-acc likes                           but comedy movies-acc  
           ‘Ali likes horror movies, but Ayşe comedy movies.’

7. a. \*Mustafa hastane-ye gittiği için, Burak (da) kütüphane-ye .  
 hospital-dat went for also library-dat  
 ‘\*Because Mustafa went to the hospital, Burak to the library.’
- b. \*Bazıları pasta-dan bugün yedi, çünkü diğerleri dün .  
 some cake-abl today ate because others yesterday  
 ‘\*Some ate from the cake today, because others yesterday.’<sup>57</sup>

### 2.3. Strings Affected

Johnson (1996/2004) observes that ‘it is possible to Gap the subject of the small clause along with the higher verb’:

8. Some elected the schmucks SENATORS and others ~~elected the schmucks~~ CONGRESSMEN.

The same holds in Turkish, as well:

9. Ahmet sen-i okul-da sanıyor, Meral (de) ev-de seni sanıyor.  
 you-acc school-loc assumes also home-loc  
 ‘Ahmet considers you at school and Meral at home.’

### 2.4. (Non-)semantic (non-)parallelism

According to Repp (2005: 7), an elided verb in Gapping structures must be identical to its antecedent with respect to the categories of tense, aspect and mood. A case of Gapping

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<sup>57</sup> In forward Gapping, identical elements in the second/rightmost conjunct are missing. Although the element elided is in the rightmost clause, Gapping is still bad.

where the first conjunct requires a past tense interpretation and the second conjunct requires a future tense interpretation is ungrammatical (10a). In Russian, aspectual mismatch causes ungrammaticality in Gapping; in (10b), the first conjunct has imperfective aspect, but the second conjunct has perfective aspect. In Turkish, a case of Gapping where the first conjunct requires a past tense interpretation and the second conjunct requires a future tense interpretation is also ungrammatical (10c):

10. a. \* The boy played with a toy car yesterday and the girl ~~played/will play~~ with a doll tomorrow.

b. \*Wtchera ja pisala pismo dwa tchasa, a ty ~~napisala~~  
yesterday I wrote-DUR letter-ACC two hours but you wrote-PERF  
~~pismo~~ za dri tchasa.  
letter-ACC in three hours

‘Yesterday I wrote a letter for 2 hours but you wrote a letter in 3 hours.’

(Repp, 2005: 7)

c. \*Ahmet Ayşe-yle dün konuştu, Murat Sena-yla yarın  
-COMM yesterday spoke -COMM tomorrow  
~~konuşacak.~~  
will.speak

‘\*Ahmet spoke to Ayşe yesterday and Murat ~~will speak~~ to Sena tomorrow.’

Again, Repp notes that non-semantic features like person, number and gender features need not be identical. In (11a), there are different person and number features on the two verbs (German), and in (11b) the verbs differ in gender features (Russian). In (11c), the verbs differ in person and number –Turkish lacks gender agreement. However, all Gapping cases are grammatical:

11. a Er trinkt Wein und die anderen ~~trinken~~ Bier.

‘He is drinking wine and the others beer.’

b. Mat’ poimala pticu ,I syn pøimal sobaku.  
mother-NOM caught-FEM bird-ACC and son-NOM caught-MASC dog-ACC

‘The mother caught the bird and the son the dog.’

(Repp 2005: 7)

c. Sen Ayşe-yi ara-yacak-sın, biz Meral-i ara-yacağ-ız.

You(sing.) -ACC call-FUT-2S we -ACC call-FUT-1P

‘You will call Ayşe and we Meral.’

## 2.5. Remnants in Gapping

Gapping remnants must also contrast appropriately with their correlates: different locations, different times, different arguments (Repp 2005). However, a temporal adjunct cannot be contrasted, for example, with a locative adjunct both in English and Turkish:

12. a. \* The boy played in the afternoon and the girl in the barn. (Repp 2005: 7)

b. \* Murat öğlen top oynadı , Tolga bahçede.

noon ball played in.the.garden

‘\*Murat played soccer at noon and Tolga in the garden.’

## 2.6. No Discontinuous Deletion Condition

Hankamer (1973) offered the Major Constituent Condition with respect to the size of remnants in Gapping structures. According to this condition, remnants must be major constituents where a "major constituent of a given sentence  $S_0$  is a constituent either

immediately dominated by S<sub>0</sub> or immediately dominated by VP, which is immediately dominated by S<sub>0</sub>" (Hankamer 1973, fn. 2). Repp (2005) claims that the following data supports this condition:

13. a. \*John came up with evidence against that proposal and Max with arguments in support of. (Repp 2005: 9)

b. \*Klaus verlegt die Rohre über den Putz und Peter die Kabel unter.

‘Klaus is installing the pipes on the plaster and Peter under ~~the plaster~~.’

(Hartmann 2000: 149)

In (13a-b) the prepositions *with arguments in support of* and *unter* occur as remnants; however, according to Repp, the sentences are ungrammatical because prepositions are not major constituents. However, in (13a-b), if the prepositions are not immediately dominated by V or S, it is not clear why the cases where the complement of each preposition is not elided are grammatical. If the prepositions in (13a-b) are not immediately dominated by V or S, it should be the same configuration for (14a-b). Also, I do not see any reason why the PP *with arguments in support of* cannot be immediately dominated by the VP since it seems to be an argument of the verb *come up*. So, Repp's argument based on Hankamer's generalization cannot account for the ungrammaticality of (13a):<sup>58</sup>

14. a. John came up with evidence against that proposal and Max with arguments in support of that proposal.

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<sup>58</sup> I am indebted to Howard Lasnik for relevant discussion.



- b. Klaus verlegt die Rohre über den Putz und Peter die Kabel unter den Putz.<sup>59</sup>  
'Klaus is installing the pipes on the plaster and Peter under the plaster.'

The issue with (13a-b) is that the elision site is discontinuous in that there is a remnant that breaks the elided string. In (13a), as shown in (15a), *with arguments in support of* is pronounced between *came up* and *that proposal*, and in (13b), as shown in (15b), *die Kabel unter* is pronounced between *verlegt* and *den Putz*:

15. a. . . . Max ~~came up~~ with arguments in support of ~~that proposal~~  
b. . . . Peter ~~verlegt~~ die Kabel unter ~~den Putz~~

For these structures to be licit, *with arguments in support of* and *Kabel unter* need to move stranding *that proposal* and *den Putz*, respectively, which is not possible:

16. a. \*[With arguments in support of]<sub>1</sub>, Max came up [<sub>t<sub>1</sub></sub> that proposal].  
b. \* [die Kabel unter]<sub>2</sub>, Peter verlegt [<sub>t<sub>2</sub></sub> den Putz]

In conclusion, the relevant condition is that the elision site in Gapping cannot be discontinuous, which I call the No Discontinuous Deletion Condition, which means that no element from within an elision site can be pronounced, unless a remnant can be extracted out of the elision site:

#### 17. *No Discontinuous Deletion Condition*

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<sup>59</sup> I am indebted to Johannes Jurka for his judgement.

The elision site cannot be discontinuous in Gapping.

This condition holds in Turkish as well. In (18), the elided parts ~~senin hakkında~~ and ~~şeyler söyledi~~ do not form a single string because the remnant *kötü* ‘bad’ occurs between the two substrings:<sup>60</sup>

18. \*Ahmet ~~senin hakkında~~ iyi şeyler söyledi, Murat ~~senin hakkında~~ kötü  
you about good things said you about bad  
~~şeyler söyledi~~  
things said  
‘\*Ahmet said good things about you and Murat (said) bad (things about you).’

## 2.7. Interim Conclusion

Since the Turkish structures above display similar properties to Gapping structures in English and other languages, I conclude that these structures in Turkish are also Gapping structures.

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<sup>60</sup> Notice that *kötü* ‘bad’ cannot be extricated, scrambled for instance:

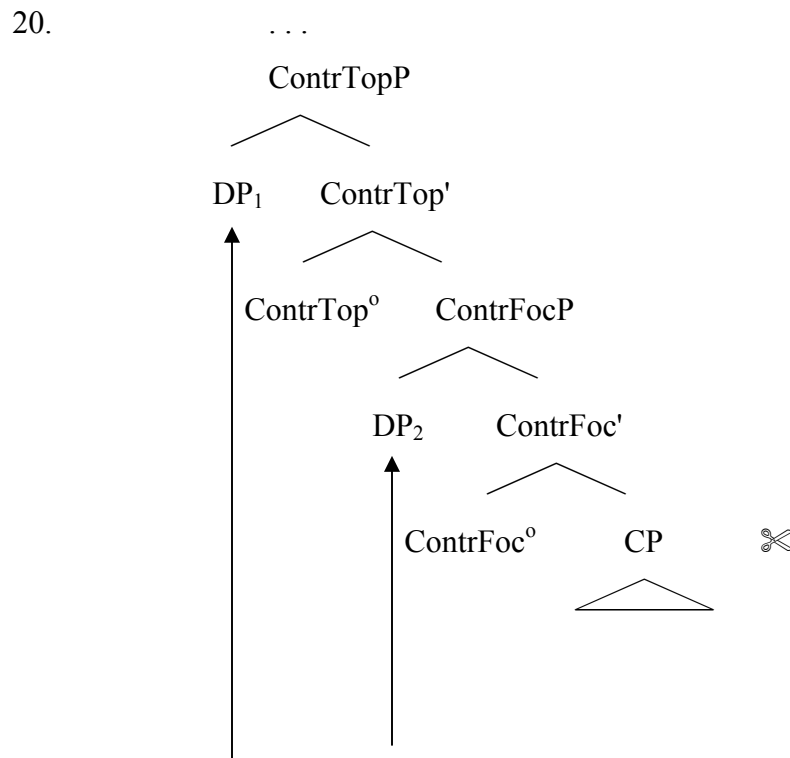
- i. \*Kötü<sub>1</sub>, Ecem ~~senin hakkında~~ \_\_\_<sub>1</sub> şeyler söylüyor.  
bad you about things saying  
‘\*Bad, Ecem is saying things about you.’

3. Analysis of Gapping

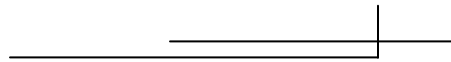
I contend the following for Gapping in Turkish:

Gapping targets CP as elision site with movement of the surviving elements to the left periphery of the matrix clause (ex. 19a-b). Repp (2005), among others, suggests that the higher phrase moves to the (contrastive) TopicP, and the lower one to the FocP (20). Thus, they form a ‘contrastive topic’ set, which I also assume.

19. a. Burak kütüphane-ye gitti , Mustafa (da) hastane-ye ~~gitti~~.  
           library-dat   went                    also hospital-dat went  
           ‘Burak went to the library and Mustafa to the hospital.’  
   b. . . . , Mustafa<sub>1</sub> (da) hastane-ye<sub>2</sub>   [<sub>FinP</sub> . . . t<sub>1</sub> . . . t<sub>2</sub> . . . ]  
           also hospital-dat



...  $t_1$  ...  $t_2$  ...

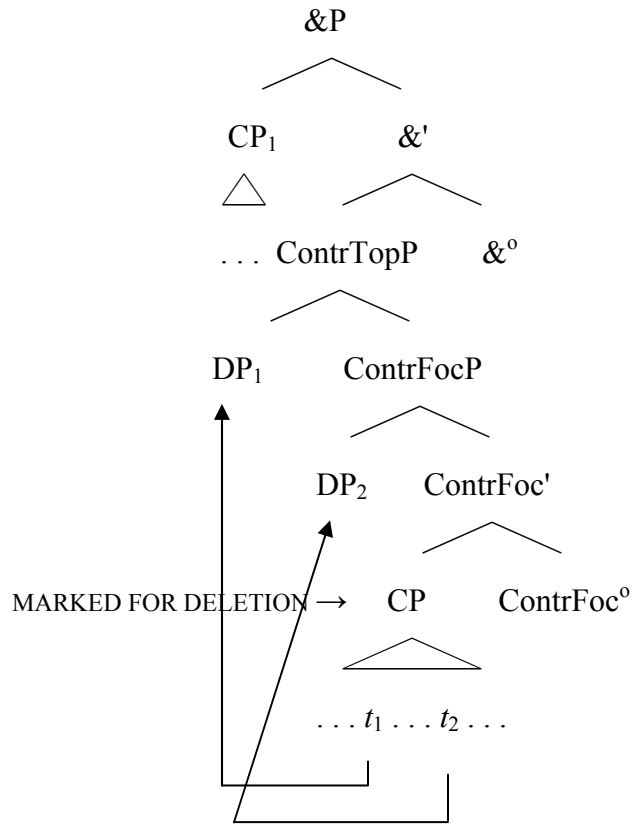


The general mechanism of Gapping can be seen in (21). The model I suggest can account for all the properties stated above. Since new/contrastive information moves to the left periphery, the verb and/or (in)direct arguments and adjuncts that are given stay inside CP and get elided (22). This accounts for the data in section 2.1. As to why Gapping occurs only in coordination structures, I am not aware of any ‘phonological ellipsis’ theory that accounts for that. I can only stipulate that only a coordination head can select a *ContrFoc*<sup>o</sup> with [+E]-feature. Although Johnson’s (1996/2004, 2006) theory explains that under the general observation that ATB-movement occurs in coordinate structures, his analysis has problems –which I will show later in the chapter.<sup>61</sup>

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<sup>61</sup> There does not occur an overt coordinator in gapping data. So, I show that the coordinating head is final, Turkish being a head-final language. The overt coordinator *ve* ‘and’ has been borrowed from Arabic, and it’s not so common in clausal coordination in Turkish.

21.

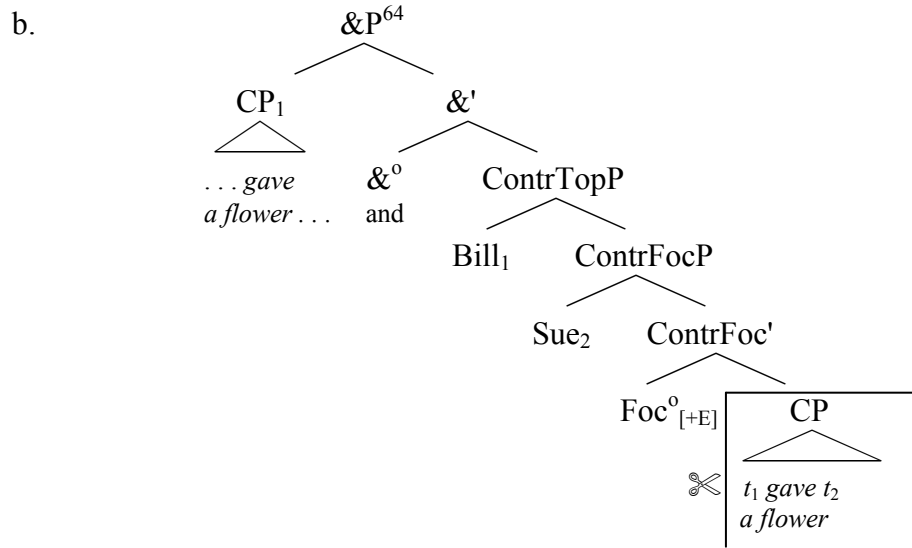


22. a. John gave a flower to Mary and Bill ~~gave a flower~~ to Sue.<sup>62, 63</sup>

<sup>62</sup> Although this chapter focuses on Gapping in Turkish, I assume that it can be applied to Gapping in English as well, as I stated at the beginning of the section.

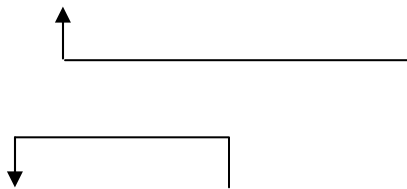
<sup>63</sup> Since 'to Sue' can be extracted independently of gapping, no violation of Discontinuous Deletion Condition arises:

- i. To who(m) did John give a flower ~~to who~~?



As to the data in section 2.3, since the subject of a small clause can undergo topicalization/scrambling (23a-b), it can also move to the left periphery in Gapping because elements in the left periphery can be remnants (24):

23. a. [The schmucks]<sub>1</sub>, some elected [ t<sub>1</sub> senators ].

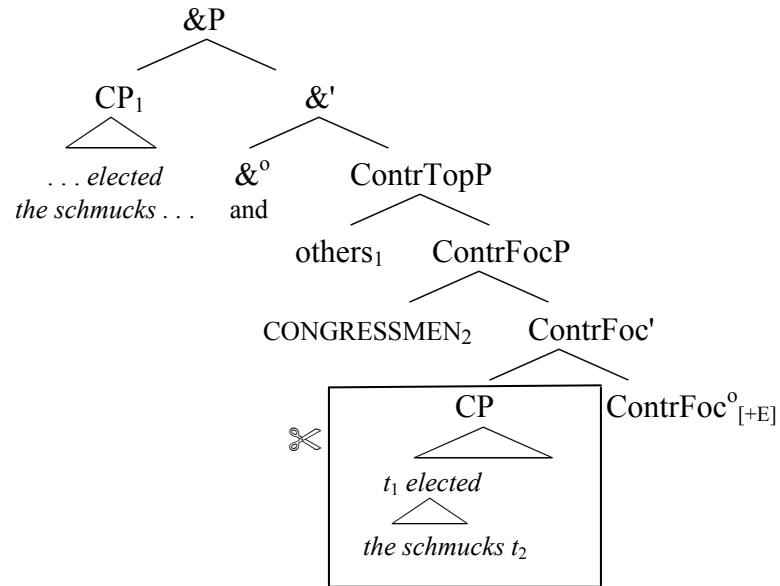


b. Sen-*i*<sub>2</sub> , Ahmet *t*<sub>2</sub> okul-da sanıyor.  
 you-acc school-loc assumes  
 ‘You, Ahmet thinks at home.’

<sup>64</sup> Shared information is in italics in both conjuncts.

24. a. Some elected the schmucks SENATORS and others ~~elected the schmucks~~ CONGRESSMEN.

b.



#### 4. A Puzzle

In this section, we will see that Gapping cannot occur in complement clauses and NP/DPs in Turkish, unlike English.

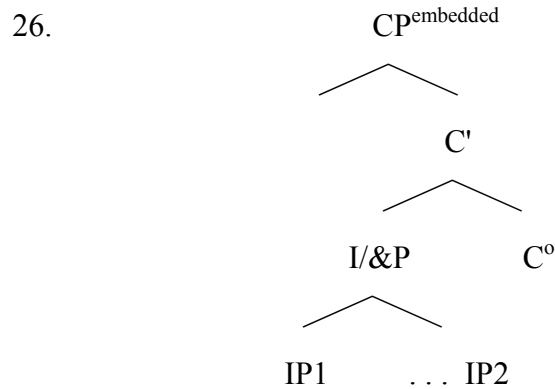
##### 4.1. Gapping in Complement Clauses in English

Gapping in complement clauses is grammatical in English:

25. Jim said that Alan went to the ballgame and (\*that) John ~~went~~ to the movies.

(Repp 2005: 10)

However, there is a restriction such that the complementizer *that* cannot be pronounced (Fiengo 1974, Hartmann 2000, Wilder 1995). Howard Lasnik (p.c.) suggests that Gapping occurs only in IP-coordinations, but not CP-coordinations.<sup>65, 66</sup> This way, the verb *say* has one CP that has an IP-coordination as complement:



Additional evidence for Lasnik's suggestion (other than 25) comes from cases of Gapping in complement clauses where one of the remnants and its correlate is a wh-

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<sup>65</sup> However, this does not mean that Gapping is restricted to IP-coordinations because Yoshida (2005) shows that Gapping can also occur NP-internally, which means that Gapping can target NP-coordinations as well.

<sup>66</sup> Merchant (2001, 2008) points out that in Irish an overt complementizer that has to occur in wh-questions cannot occur in sluicing cases. The un-pronunciation of *that* in gapping could be part of a more general restriction, which would be that elision targets CP in sluicing and gapping. This would explain why an overt complementizer is unpronounced in these elliptical structures. However, we will see a problem with this account in the following pages. Also, if [+E]-feature is carried by a C head but not an I head, the coordination structure in gapping cannot be IP-coordination; otherwise, ellipsis could not occur (I am indebted to Norbert Hornstein for pointing out this.)



phrase. When the *wh*-phrase is non-subject (27b-c-d-d-e) or a low adjunct like *where*, gapping is illicit. However, when the *wh*-phrase is subject or *why* (assumed to be merged in Spec, CP), the structure is ameliorated (27fg):

27. a. \*I don't remember where John went and where Brian ~~went~~.<sup>67</sup>  
b. \*I wonder what John ate and what Brian ~~ate~~.  
c. \*I wonder which pie John ate and which pie Brian ~~ate~~.  
d. \*I wonder who Tim called and who Mary ~~called~~.  
e. \*I wonder which girl John called and which girl Mary ~~called~~.  
f. ?I wonder who ate the cake and who ~~ate~~ the ice-cream.  
g. ?I wonder which student called Howard and which student ~~called~~ Norbert.

Interestingly, the same parallelism is observed in matrix clauses. Subject-*wh*-phrases and *why* are better compared to other *wh*-phrases (though López & Winkler (2003) and Winkler (2003) and Repp (2005) report (28a) as (fully) grammatical):<sup>68</sup>

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<sup>67</sup> Howard Lasnik (p.c.) notes that these structures are good with subject *wh*-phrases, concluding that subject *wh*-phrases do not (need to) move to Spec, CP:

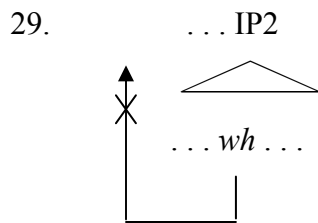
- i. I don't remember who ate the cake and who the ice-cream.

<sup>68</sup> I checked the data in (27) & (28) with seven native-speakers of English. Norbert Hornstein remarks that the following case is much better compared to the data in (27 & 28):

- i. I don't recall what John ate nor what Brian ~~ate~~.

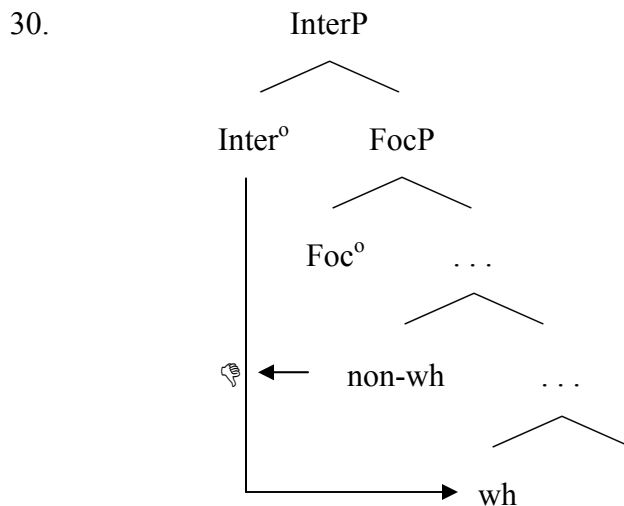
28. a. \*When did John arrive and when Mary?  
 b. ??Who called John and who Mary?  
 c. ??Which student called Howard and which student Norbert?  
 d. \*What did John eat and what Shannon?  
 e. \*Which pie did Pedro eat and which pie Alex?  
 f. \*Where did John go and where Brian?

Lasnik's suggestion would explain why Gapping cannot have non-subject *wh*-remnants other than *why* in both matrix and embedded clauses: since there is no Spec, CP position for a non-subject *wh*-remnant to move to to check its Qu-features, the Gapping structure would be illicit, but it would not explain the acceptability of *why* because *why*, unlike a subject *wh*-phrase, never occurs in Spec, TP/FinP:



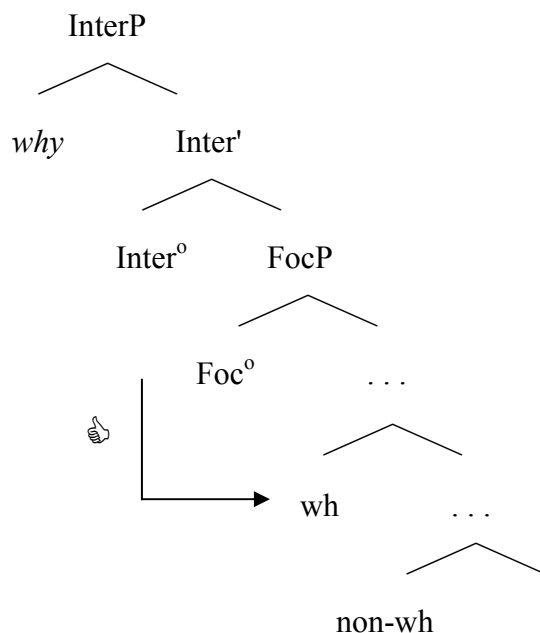
However, this would be in conflict with theories of Gapping which assume that remnants move to/occur in the left periphery of a clause (Repp 2005), which I also assume in this study. In those theories, one would suggest that remnants move to a position higher than CP that hosts *that* and that the head that hosts the remnants and whose complement is CP has the [+ELLIPSIS] feature, which instructs PF not to pronounce the CP complement, which hosts *that*. However, that would not account for the dichotomy between subject

*wh*-phrases and non-subject *wh*-phrases as remnants. One way to explain the difference between subject *wh*-phrases and *why*, on the one hand, and other *wh*-phrases, on the other hand, would be to explain it in terms of interference. In other words, a focused non-*wh*-phrase blocks raising of a *wh*-phrase. We need to assume that the projection that attracts *wh*-phrases –let’s call it Interrogative Phrase (InterP)- is above FocP, which attracts non-*wh*-phrases. So, in cases where a *wh*-phrase is first-merged in a position lower than a non-*wh*-phrase, we get the following:



In (30), Inter° cannot attract the *wh*-element because the non-*wh*-element interferes, having its uninterpretable A'-features. On the other hand, in the case of a subject *wh*-phrase and *why*, the non-*wh* phrase does not interfere because it does not c-command the *wh*-phrase. *Why* is first-merged in Spec, InterP, a subject *wh*-phrase is first-merged in Spec, *v*P and moves to Spec, TP to check its uninterpretable Case features and satisfy the EPP property of T°, thus it is higher than other arguments and lower (wh-)adjuncts (such as *where* and *when*):

31.



#### 4.2. Gapping in Complement Clauses in Turkish

Interestingly, unlike Gapping in English, Gapping is illicit in complement clauses in Turkish (ex. 32-33) (Hankamer 1979, Kornfilt 2000) (ex. 32 is a Nominalized Complement Clause (NCC), and ex. 33 is a Finite Complement Clause (FCC)). Word order of Turkish is SOV. So, complement clauses precede the matrix verb. In Nominalized Complement Clauses (NCC), the subject bears Genitive Case unless non-specific and the verb bears nominal agreement morphology rather than verbal agreement

morphology. In Finite Complement Clauses (FCC), the subject bears Nominative/Accusative Case and the verb bears verbal agreement:

32. \*Zeynep<sup>69</sup> [[Hasan-in karides-i ye-diğ-in-i], [Mehmed-in de  
 Hasan-gen shrimp-acc eat-fnom-3.sg-acc Mehmed-gen and  
 istiridye-yi \_\_\_ ]] duy-du  
 oyster-acc hear-past  
 ‘ZEYNEP heard that Hasan ate the shrimp, and Mehmet (ate) the oyster.’  
 (Kornfilt 2000)

33. \*Ahmet [[Hasan karides-i ye-di], [Mehmet te istiridye-yi \_\_\_ ]]  
 Ahmet Hasan shrimp-acc eat-past Mehmet and oyster-acc  
 san-iyor.  
 believe-prpprog  
 ‘Ahmet believes Hasan ate the shrimp and Mehmet (ate) the oyster’  
 (Kornfilt 2000)

Kornfilt (2000) notes that when the complement clause follows the matrix verb, the structure is ameliorated:

34. a. Zeynep duy-du [[Hasan-in karides-i ye-diğ-in-i], [Mehmed-in  
 hear-past Hasan-gen shrimp-acc eat-fnom3.sg-acc Mehmet-gen  
 de istiridye-yi \_\_\_ ]]

---

<sup>69</sup> In Kornfilt (2000), ‘Zeynep is in capitals: ‘ZEYNEP’. However, it is not clear why she shows it in capitals. Since capitalization is used to show focused words/phrases, I have decapitalized ‘Zeynep’.

and oyster-acc

‘Zeynep heard that Hasan ate the shrimp, and Mehmet (ate) the oyster.’

(modified from Kornfilt 2000)

b.  $[CP [CP \dots t_1 \dots V^o_{matrix}]^{matrix} [&P \dots \text{gapped structure} \dots ]_1 ]^{matrix}$

Kornfilt (2000) stipulates that only a verb can occur in the rightmost periphery in complement clauses when these clauses are in their canonical position, without explaining how she deduces it. However, it is not clear why an embedded verb would have to be the rightmost element in the complement clause when the complement clause is in its canonical position. Further, this is wrong because an embedded verb can be scrambled to the right periphery of the matrix clause, in which case it is not the rightmost element in a complement clause:<sup>70</sup>

35. *pro* [ Hasan-ın Ayşe-yle \_\_\_<sub>1</sub> ] biliyorum görüştüğünü<sub>1</sub>.  
-gen -comm I.know met  
‘I know that Hasan sees Ayşe.’

Alternatively, Kornfilt’s observation could be a consequence of the fact that nothing can right-adjoin to the right periphery of a complement clause:

36. \**pro* [[ Hasan-ın \_\_\_<sub>2</sub> görüştüğünü] Ayşe-yle<sub>2</sub> ] biliyorum.  
-gen met -comm I.know  
‘I know that Hasan sees Ayşe.’

---

<sup>70</sup> I ignore Relativized Minimality issue here. It could be that a phrase emptied out by extraction of arguments but the verb right-adjoins to the matrix clause. However, this is irrelevant to my study.

Furthermore, when the whole complement clause is scrambled to the left periphery of the matrix clause, Gapping is still bad:

37. a. \*[[Hasan-in karides-i yediğini], [Mehmed-in de istiridye-yi  
 -gen shrimp-acc ate -gen also oyster-acc  
 yediğini ]] Zeynep duydu  
 ate heard

‘Zeynep heard that Hasan ate the shrimp, and Mehmet (ate) the oyster.’

- b. \*<sub>[CP [&P . . . ]<sub>1</sub> [<sub>FinP</sub> SUBJECT . . . t<sub>1</sub> . . . ]<sup>matrix clause</sup></sub>

This is a problem for Kornfilt: Since the complement clause is not in its canonical position, Gapping would be expected to be grammatical in (37a) because the complement verb would not have to be the rightmost element in the complement clause itself.

Also, non-occurrence of DP-internal Gapping in Turkish (ex. 38) would require a different account in Kornfilt’s analysis since there is no complement verb in those DPs that has to occur in the rightmost position when DPs are in their canonical position.

38. \*Ahmet Ali-nin bu teorem-i ispatın-a , Meral-in de  
 -gen this theorem-acc his.proof-dat -gen also  
 o teorem-i ~~ispatın-a~~ hayran kal-dı  
 it theorem-acc her.proof-dat fan stayed

‘Ahmet adored Ali’s proof of this theorem and Meral’s of that theorem.’

All the ungrammatical data introduced in this section shows that Gapping cannot be restricted to coordination of certain domains such as IP (H. Lasnik (p.c.)). It could be

argued that Gapping cannot occur in NCCs because IPs cannot be coordinated since the complementizer head in Turkish is a bound morpheme, not a free morpheme as in English. However, in FCCs there is no bound complementizer head, so IP-coordination would be licit, contrary to the fact.

#### 4.3. Further Data

Gapping is also grammatical when only the remnants out of the complement clause follow the matrix:

39. Ahmet [Hasan-in pasta-yı yediğini] biliyor Meral-in (de) dondurma-yı.  
-gen cake-acc ate knows -gen also ice.cream-acc  
'Ahmet knows that Hasan ate the cake and Meral the ice-cream.'

40. Ahmet [Hasan karides-i yedi] sanıyor , [Mehmet te istiridye-yi \_\_\_\_ ]  
Ahmet Hasan shrimp-acc ate assumes also oyster-acc  
'Ahmet believes Hasan ate the shrimp and Mehmet (ate) the oyster'

Howard Lasnik (p.c.) points out that there could be a requirement which states that remnants in Gapping structures have to be the rightmost elements linearly, based on the data in ex. (32 vs. 34&39). On the assumption that being the rightmost element means right-adjointing to a structure, especially ex. (39-40) would require that gapped remnants right-adjoin to the matrix clause.





In conclusion, Gapping out of any domain is possible as long as the remnants follow the matrix clause. Then, an account is required of why Gapping cannot occur in complement clauses and DPs when remnants of Gapping linearly precede the matrix verb.

### 5. A Proposal

To explain the data in the previous section, I propose the following:

Only a matrix CP can be elided because only matrix clauses have the relevant [+E] feature to license elision of CP in Gapping structures. In Merchant's theory (2008), [+E] feature needs to be checked by a +wh, +Q head (i.e., interrogative C<sup>o</sup>), and licenses deletion of the complement –IP- of C<sup>o</sup>.

Non-matrix domains are deficient in terms of lacking TP and/or AspP.<sup>72</sup> They also lack a Contrastive Focus head with the relevant [+E] feature. In other words, a Contrastive Focus<sup>o</sup> with the relevant [+E] feature does not select deficient domains as

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<sup>72</sup> Or, even if they select both T<sup>o</sup> and Asp<sup>o</sup> for cases I suggest they do not, those T<sup>o</sup> and Asp<sup>o</sup> heads themselves are deficient because they are dependent on the matrix Tense/Aspect (thanks to V. Hacquard for relevant discussion).

complement.<sup>73</sup> Similar phenomenon occurs in other languages, as well. Polinsky (2007), for example, shows that sluicing does not occur in complement clauses in Aghem and Circassian; Gallego & Uriagereka (2007) also mention defective C/T/v's in a different context.

Yet, there is no (technical) reason/explanation for why/how a ContrFoc<sup>0</sup> with the relevant [+E] feature does not occur in/select these defective domains.<sup>74</sup>

As to the [+E] feature in Gapping structures, its featural make-up cannot be [~[+wh], ~[+Q]] like Merchant's (2008) [+E] feature which licenses sluicing because *wh*-phrases are not obligatory in Gapping structures unlike sluicing. So, the featural make-up of the [+E] feature in Gapping structures is [~[+ContrastiveFocus]] –in other words, if you have this [+E] feature, you also have to have Contrastive Focus- because the phrases surviving from ellipsis are contrastively focused.

So, we can conclude that the Lexicon has different functional heads like Contrastive Focus, one with [+E] feature and one without [+E] feature licensing Gapping.

As to the deficiency of the non-matrix structures in the study, Nominalized Complement Clauses (NCC) never project Tense Phrase (Ince, 2007). Finite Complement Clauses (FCC) project a TP or AspP but never a TP and AspP together –unlike matrix

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<sup>73</sup> See Ince (2008) for deficiency of embedded structure and their interaction with agreement. To follow an analogy in Uriagereka (2008), the lack/deficiency of even one single disk makes the whole spine deficient, dysfunctional.

<sup>74</sup> See Kural (1993) for existence of complementizers in complement clauses and Tekin (2001) for complementizers in embedded clauses in complement clauses from a historical perspective.

clauses. We can express selection of TP by C by stating that C bears [-Tense] features, selection of both a TP and AspP by stating that C bears [-Tense, -Aspect] features (in this case, T also has to bear [-aspect] features) and selection of AspP by stating that C bears [-aspect] features.<sup>75</sup> So, these deficient domains –mentioned above- are never selected by a Contrastive Focus head with [+E] feature licensing Gapping. In other words, a ContrFoc<sup>o</sup> with [+E] feature licensing Gapping selects a non-deficient clausal domain as its complement. So, in classical terms, Gapping in Turkish is a **root phenomenon** because a Contrastive Focus that select a C<sup>o</sup> bearing [-Tense, -Aspect] can bear [+E] feature (Emonds, 1976).

### 5.1. Gapping Targets Only Matrix Clauses

In this section, I will argue that in Gapping structures where the remnants from NCC and FCC complement clauses follow the matrix verb (ex. 39-40 repeated as ex. 43&45), the source consists of the conjunction of two matrix clauses rather than of two complement clauses (ex. 44-46, respectively).

43. Ahmet [Hasan-in pasta-yı yediğini] biliyor , Meral-in (de) dondurma-yı.

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<sup>75</sup> A C bearing [-aspect] feature has to merge with an AspP but not TP because it can probe for an AspP but not TP according to the *Vehicle Requirement on Merge* of Pesetsky & Torrego (2006: 1) in external merge cases as well:

i. **Vehicle Requirement on Merge**

If  $\alpha$  and  $\beta$  merge, some feature F of  $\alpha$  must probe F on  $\beta$ .

-gen cake-acc ate knows -gen also ice.cream-acc  
 ‘Ahmet knows that Hasan ate the cake and Meral the ice-cream.’

44. [[Ahmet [Hasan-ın pasta-yı yediğini] biliyor], [Ahmet [Meral-in (de)  
 -gen cake-acc ate knows -gen also  
 dondurma-yı yediğini] bil-iyor]].  
 ice.cream-acc ate knows  
 ‘Ahmet knows that Hasan ate the cake and Ahmet knows that Meral ate the ice-cream.’

45. Ahmet [Hasan karides-i yedi] sanıyor , [Mehmet te istiridye-yi \_\_\_ ]  
 shrimp-acc ate believes Mehmet and oyster-acc  
 ‘Ahmet believes Hasan ate the shrimp and Mehmet (ate) the oyster.’

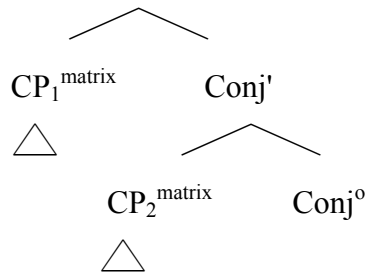
46. [[Ahmet [Hasan karides-i yedi] sanıyor ], [Ahmet [Mehmet te  
 shrimp-acc ate believes also  
 istiridye-yi yedi] sanıyor]].  
 oyster-acc ate believes  
 ‘Ahmet believes Hasan ate the shrimp and Ahmet believes Mehmet ate the oyster.’

This is shown below:

47. ConjP<sup>76</sup>

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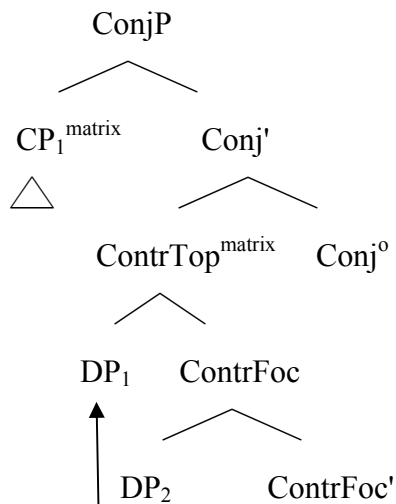
<sup>76</sup> Interestingly, the overt coordinator *ve* ‘and’ precedes the second conjunct as in Japanese and Korean (Howard Lasnik (p.c.)). Since Turkish is a head-final language, the second conjunct would be expected to precede *ve*. There are (at least) two ways to explain this. Either the second conjunct right-adjoins to the



Remnants move to the left periphery of the second conjunct, followed by the elision of the P in the second conjunct (ex. 48 as the underlying form for ex. 42), as schematized in (49).

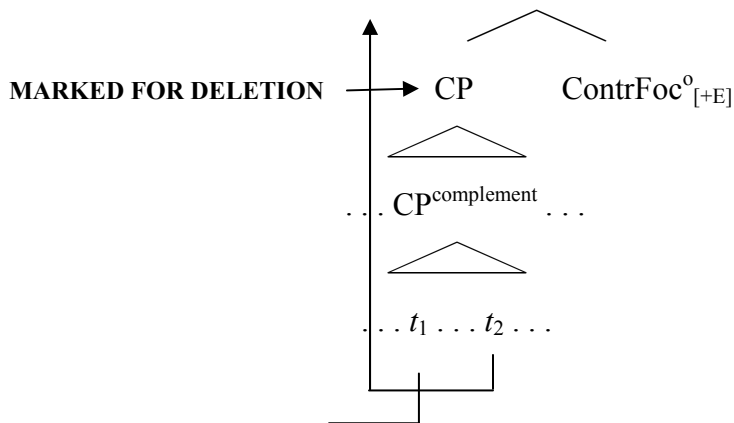
48. Ahmet [Hasan-in pasta-y<sub>1</sub> yediğini] biliyor, Meral-in<sub>1</sub> (de) dondurma-y<sub>12</sub>  
 -gen cake-acc ate knows -gen also ice.cream-acc  
~~Ahmet [t<sub>1</sub> t<sub>2</sub> yediğini] biliyor~~  
 ate knows  
 ‘Ahmet knows that Hasan ate the cake and Meral the ice-cream.’

49.




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conjunction; or, *ve* is not a head but an adjunct that modifies the second conjunct. I will leave this as an open issue for future research.



In (49), the matrix  $\text{ContrFoc}^\circ$  in the second conjunct has the [+E] feature to license elision of its complement CP because the matrix clause is not a deficient domain in that it can project both TP and AspP.

When the antecedent complement clause as well as the gapped remnants follow the matrix verb, the antecedent complement clause right-adjoins to the first conjunct (ex. 52 as the underlying form for ex. 35a repeated as ex. 51):

50. Zeynep duy-du [[Hasan-in karides-i ye-diğ-in-i], [Mehmed-in  
hear-past Hasan-gen shrimp-acc eat-fnom3.sg-acc Mehmet-gen  
de istiridye-yi \_\_ ]]  
and oyster-acc

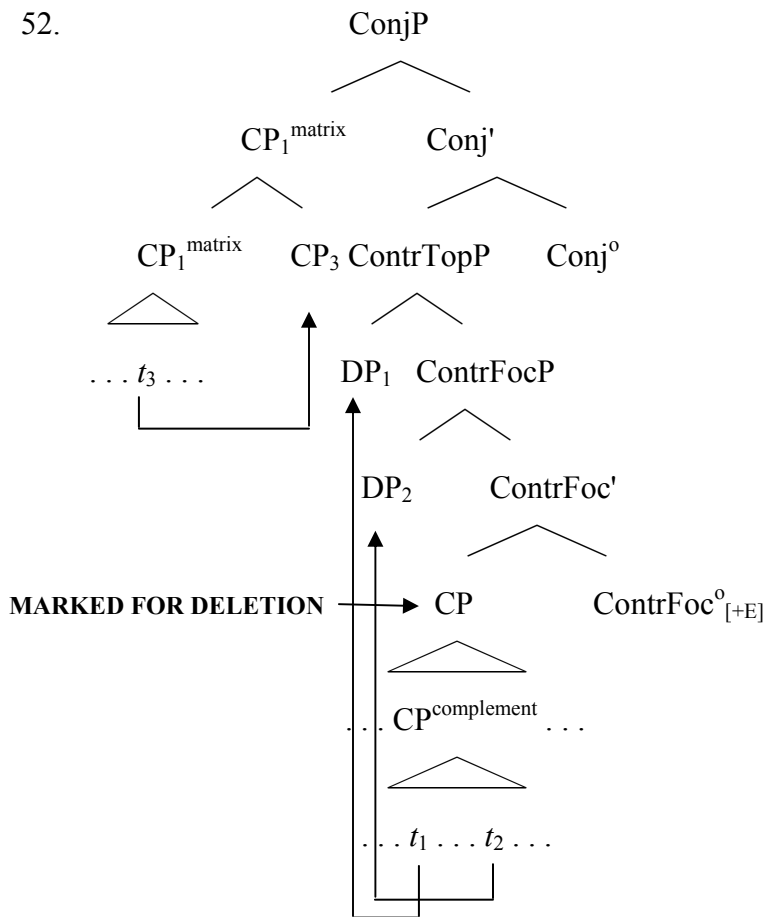
‘Zeynep heard that Hasan ate the shrimp, and Mehmet (ate) the oyster.’

(modified from Kornfilt 2000)

51. Zeynep duydu [[Hasan-in karides-i yediğini], [Mehmed-in<sub>1</sub> de  
heard -gen shrimp-acc ate -gen and  
istiridye-yi<sub>2</sub> [ Zeynep [ t<sub>1</sub> t<sub>2</sub> — yediğini], duydu ]]  
oyster-acc ate heard

'Zeynep heard that Hasan ate the shrimp, and (Zeynep heard that) Mehmet (ate) the oyster.'

This is how the ordering is derived where the first complement clause and the remnants of Gapping follow the matrix verb (of the first conjunct), as shown below:





Further evidence for the proposal that Gapping targets matrix domains comes from disjunction structures (ex. 53):

53. Ahmet [Hasan-in pasta-yı yediğini] biliyor, veya [Meral-in dondurma-yı].  
-gen cake-acc ate knows or -gen ice.cream-acc  
‘Ahmet knows that Hasan ate the cake, or Meral the ice-cream.’  
[i.e., ‘Either Ahmet knows that Hasan ate the cake, or Ahmet knows that Meral ate the ice-cream.’]

In this example, if the elided part is only the complement clause itself, one would expect the reading ‘Ahmet knows P or Q’ (54a); and, if the elision site is the matrix clause, one would expect the reading ‘Ahmet knows P or Ahmet knows Q’ (54b):<sup>77</sup>

54. a. Ahmet knows [P ∨ Q]  
b. [Ahmet knows P] ∨ [Ahmet knows Q]

In the first reading, the speaker would assert Ahmet’s knowledge of the disjunction; and, in the second reading, the speaker wouldn’t make any assertion regarding Ahmet’s knowledge of the disjunction.

In ex. 53, the speaker does not make any assertion about Ahmet’s knowledge of the disjunction at all. On the contrary, the reading in ex. 53 is the second one: ‘Ahmet

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<sup>77</sup> I am indebted to a NELS reviewer for giving me this idea.

knows P or Ahmet knows Q.’ So, the elements in the disjunction structure are two matrix clauses, which supports my proposal that the elision site in ex. 39 is the matrix clause. Furthermore, a case where disjunction operator takes scope only over a sub-clausal constituent (55a) can be followed by a statement as in (55b):

55. a. [Somebody calls me. Since the line is not good, I cannot recognize exactly the voice on the line. It’s either John or Michael on the line.]  
*pro* John veya Michael ile konuşuyorum.  
or with speaking  
‘I am speaking to John or Michael.’
- b. . . . ama tam olarak hangisi-yle bilmiyorum.  
but exact being which.one-comm not.know  
‘But I don’t know exactly which one.’

Similarly, if the reading in (54a) were accessible for (53), a statement similar to (55b) could follow it. However, that is impossible, just as (58) cannot follow the non-elided version of (53) (i.e. 57), and this shows that (53) is a disjunction of two matrix disjuncts, as in (54b):

56. Ahmet [Hasan-in pasta-yı yediğini] biliyor, veya [Meral-in dondurma-yı].  
-gen cake-acc ate knows or -gen ice.cream-acc  
‘Ahmet knows that Hasan ate the cake, or Meral the ice-cream.’
57. [Ahmet<sub>1</sub> [Hasan-in pasta-yı yediğini] biliyor], veya [*pro*<sub>1</sub> [Meral-in  
-gen cake-acc ate knows or -gen  
dondurma-yı yediğini] biliyor].

ice.cream-acc ate knows

‘Ahmet knows that Hasan ate the cake, or he knows that Meral ate the ice-cream.’

58. . . . # Ama tam olarak kimin ne yediğini bilmiyor.

but exact being who what ate not.knows

‘ . . . but he doesn’t know exactly who ate what.’

In non-elliptical cases where the complement clause is in its canonical position, on the other hand, disjunction of complement clauses gives us only the first reading ‘Ahmet knows P or Q (54a)’ because it can be followed by (59). In other words, Ahmet’s knowledge of the disjunction is asserted:

59. Ahmet [[Hasan-in pasta-yı yediğini] veya [Meral-in dondurma-yı  
-gen cake-acc ate or -gen ice.cream-acc  
yediğini]] biliyor.

ate knows

‘Ahmet knows that Hasan ate the cake or Meral ate the ice-cream.’

. . . ama tam olarak kimin ne yediğini bilmiyor.

but exact being who what ate not.knows

‘ . . . but he doesn’t know exactly who ate what.’

This interpretational difference between (53) (& 57) and (59) supports my proposal that (53) consists of two matrix clausal disjuncts, whereas (59) consists of two complement clausal disjuncts. Since the matrix subject is not within the scope of the disjunction structure in (59), it can make reference to the members of the disjunction. In (53), on the other hand, since the disjunction consists of two matrix clauses, the matrix subject is in

the scope of the disjunction operator. Hence, it cannot make reference to the members of the disjunction.

Paul Pietroski (p.c.) raises the question why only ‘or’ is used for this test but not other conjuncts such as ‘and’ (60a) and ‘either . . . or . . .’ (60b).

60. a. Ahmet [Hasan-in pasta-yı yediğini] biliyor, [Meral-in dondurma-yı].  
-gen cake-acc ate knows -gen ice.cream-acc

‘Ahmet knows that Hasan ate the cake, and Meral the ice-cream.’

b. Ahmet ya [Hasan-ın pasta-yı yediğini] biliyor,  
or -gen cake-acc ate knows

ya (da) [Meral-in dondurma-yı].

or also -gen ice.cream-acc

‘Ahmet either knows that Hasan ate the cake, or Meral the ice-cream.’

As to the coordinator *and*, I could not come up with any test to verify whether it gives matrix or embedded reading in (60a). As to the conjunct *either . . . or . . .*, we can check whether it can be followed by the statement in (58) (repeated as (62)):

61. Ahmet ya [Hasan-ın pasta-yı yediğini] biliyor,  
or -gen cake-acc ate knows

ya (da) [Meral-in dondurma-yı].

or also -gen ice.cream-acc

‘Ahmet either knows that Hasan ate the cake, or Meral the ice-cream.’

62. . . . # Ama tam olarak kimin ne yediğini bilmiyor.

but exact being who what ate not.knows

‘ . . . but he doesn’t know exactly who ate what.’

The statement in (62) cannot follow the gapping in (61), which shows that gapping in (61) includes coordination of two matrix clauses rather than two embedded clauses. Therefore, the conjunct *either . . . or . . .* can also be used as a test for the highness of coordination in gapping in Turkish.

### 5.1.1 Gapping in DPs

As mentioned previously, Gapping in DPs is ungrammatical, as ex. 38 (repeated as ex. 63) shows:

63. \*Ahmet Ali-nin bu teorem-i ispatın-a , Meral-in de  
-gen this theorem-acc his.proof-dat -gen also  
o teorem-i hayran kaldı  
it theorem-acc fan stayed  
‘Ahmet adored Ali’s proof of this theorem and Meral’s of that theorem.’

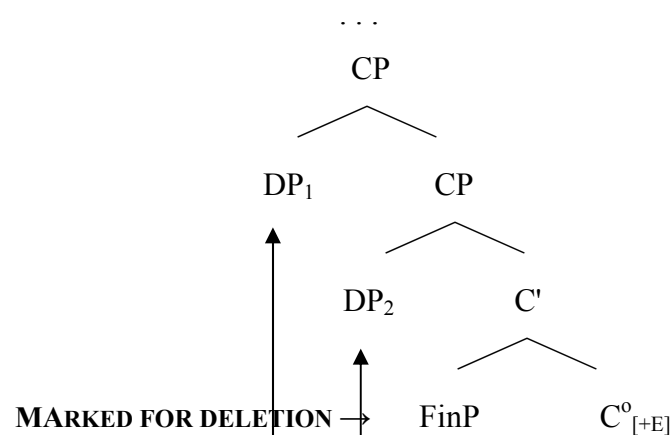
However, as in Gapping in complement clauses, when the remnants follow the matrix verb, Gapping out of DP is grammatical (ex. 42 repeated as ex. 64):

64. Ahmet Ali-nin bu teorem-i ispat-in-a hayran kaldı,  
-gen this theorem-acc his.proof-dat fan stayed  
Meral-in de o teorem-i  
-gen also it theorem-acc  
‘Ahmet adored Ali’s proof of this theorem and Meral’s of that theorem.’

Depending upon the arguments related to Gapping in complement clauses, I will assume that in ex. 64 the coordination consists of two matrix clauses (65) rather than two DPs, where remnants (inside the DP) A'-move to the left periphery of the second clause after which the FinP of the second clause is elided (66):<sup>78</sup>

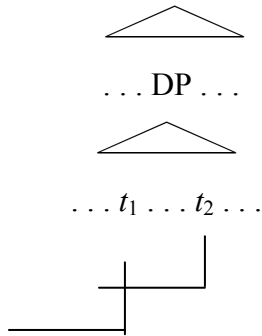
65. [[Ahmet [Ali-nin bu teorem-i ispat-ın]-a hayran kaldı], [Ahmet  
-gen this theorem-acc his.proof-dat fan stayed  
[Meral-in de o teorem-i ispat-ın]-a hayran kaldı]].  
-gen also it theorem-acc his.proof-dat fan stayed  
'Ahmet adored Ali's proof of this theorem and Ahmet adored Meral's proof of  
that theorem.'

66.



<sup>78</sup> Notice that Genitive subjects can be scrambled to the left-edge of a matrix clause:

- i. Tolga-nın<sub>1</sub> Uğur [       <sub>1</sub> sinema-ya gittiğini] biliyor.  
-GEN theater-DAT went knows  
'Of Tolga, Uğur knows that he went to a movie.'



## 5.2. Complement Clauses as Deficient Domains

As Ince (2007) has argued, Nominalized Complement Clauses lack TP layer. As to Finite Complement Clauses (FCC), I will show that, contra Aygen (2002), they do not lack TP layer. However, they cannot project both TP and AspP, as Aygen (2002) showed.

Being deficient in terms of lacking TP projection or not licensing projection of both AspP and TP, these complement clauses cannot be selected by a  $C^0$  with the [+E] feature that licenses Gapping.

### 5.2.1 No Asp+TP in Finite Complement Clauses

As Aygen (2002) noticed, both an Aspect and a Tense head cannot project in FCCs:

67. a. \*Ben sen-Ø/i      Ankara-ya gid-iyor-du-n sandım.  
       I    you-nom/acc      -dat go-prog-pst-2s assumed  
       ‘I thought you were going to Ankara’
- b. Ben sen-Ø/i      Ankara-ya git-ti-n sandım.  
       I    you-nom/acc      -dat go-pst-2s assumed  
       ‘I thought you went to Ankara’

Depending upon this data, Aygen claims that FCCs are Aspectual Phrases, but not TPs or CPs. However, below I will argue that a Tense Phrase projects in FCCs.

The time adverb within the FCC has to match with the temporal value of the FCC. A past/future-time denoting adverb can occur in an FCC with a verb bearing Past/Future Tense marker, respectively:

68. [Let's assume I make the following statement on Monday. Let 'Saturday' be before the utterance day and let the reference time/day of the matrix clause be Sunday: Saturday > Sunday > Monday.]

[Sen-Ø/i      Ali-yle      Cumartesi    konuştu]    san-ıyordu-lar.  
you-nom/acc    -comm Saturday    talked      assumed-3p  
'They were thinking you talked to Ali Saturday.'

69. [Let's assume I make the following statement on Monday. Let 'Saturday' be before the utterance day and let the reference time/day of the matrix clause be Tuesday: Saturday > Monday > Tuesday.]

[Sen-Ø/i      Ali-yle      Cumartesi    konuştu]    san-acak-lar.  
you-nom/acc    -comm Saturday    talked      will.assume-3p  
'They will think you talked to Ali Saturday.'

70. [Let's assume I make the following statement on Monday. Let 'Tuesday' be after the utterance day and let the reference time/day of the matrix clause be, again Monday: Monday > Tuesday.]

[Sen-Ø/i      Ali-yle      Salı      günü    konuşacaksın]    san-ıyor-lar.  
you-nom/acc    -comm Tuesday day    will.talk      assume-prog-3p  
'They think you will talk to Ali Tuesday.'



71. [Let's assume I make the following statement on Monday. Let 'Tuesday' be after the utterance day and let the reference time/day of the matrix clause be Sunday: Sunday > Monday > Tuesday.]

[Sen-Ø/i      Ali-yle      Salı      günü konuşacaksın] san-ıyor-du-lar.  
you-nom/acc      -comm Tuesday day      will.talk      assume-prog-pst-3p  
'They thought you will talk to Ali tomorrow'

In ex. 68 & 69, the verb of the FCC bears Past Tense marker *-DI*, and the temporal adverb denotes past-time: *Cumartesi* 'Saturday'. The Tense of the matrix clause can be past or future –(68) & (69), respectively. The fact that the matrix Tense can be future in (66) shows that there is no tense dependency between the matrix clause and the FCC, and that it is not the matrix tense that licenses the time adverb in the FCC. In ex. 70 & 71, the tense marker in the FCC is future, and the temporal adverb denotes future time; the tense of the matrix clause can be present or past –ex. 70 & 71, respectively. The fact that the matrix Tense can be past in (71) shows that there is no Tense dependency between the matrix clause and the FCC, and that it is not the matrix tense licenses the time adverb in the FCC.

The following example shows much more clearly that FCC's have a Tense projection.

72. [Let us assume that I make the following statement to a friend on Thursday, where Friday and Saturday are the following consecutive days]:

\*[Sen-Ø/i      Ali-yle      Cuma günü konuştuğun] san-acak-lar Cumartesi.  
you-nom/acc      -comm Friday day      talked      will.assume Saturday  
'\*Saturday they will think you have talked to Ali Friday.'

In ex. 72, the tense value of the FCC and the temporal adverb do not match: the FCC bears past tense marker, the temporal adverb denotes future time; although the tense of the matrix clause is future, it does not license the temporal adverb. This example also shows that *-DI* cannot be interpreted as **perfective** marker either. The only possible reading with ex. 72 is one in which *Cuma günü* ‘Friday’ precedes Thursday, i.e. Speech Time.

In the following example, let us assume I make the statement to a friend today, i.e. Tuesday, and Sunday and Monday are the immediately preceding two days:

73. \*[Sen-Ø/i      Ali-yle      Pazartesi konuşacaksın] san-dı-lar Pazar günü.  
       you-nom/acc      -comm Monday will.talk      assumed      sunday day  
       \*‘Sunday they thought you will talk to Ali Monday.’

In ex. 73, the tense value of the FCC and the temporal adverb do not match: the FCC bears future tense marker, the temporal adverb denotes past time; although the tense of the matrix clause is past, it does not license the temporal adverb. Again, the only possible reading with ex. 69 is one in which *Pazartesi* ‘Monday’ follows the Speech Time, i.e. today. To sum up, the temporal value of FCCs and temporal adverbs have to match. So, FCCs project TP.

FCCs can project only AspP as well (G. Aygen (p.c.)):

74. Ben sen-Ø/i      Ankara-ya      gidiyorsun      sanıyordum.  
       I      you-nom/acc      -dat      going      was.assuming

‘I thought you are/were going to Ankara’

However, even matrix clauses can have only an overt Aspectual marker:

75. Ben Ankara-ya gidiyorum.

I -dat going

‘I am going to Ankara’

In summary, I take FCCs as **deficient** because they never project both overt Tense and Aspectual phrases, unlike matrix clauses. In other words, the C<sup>o</sup> heading FCCs do not bear [-Tense, -Aspect] features (nor does T bear [-Aspect] feature).

### 5.2.2 No Tense (Phrase) in Nominalized Complement Clauses

Following Aygen (2002), Kennelly (1996, 1997), Sezer (2001), Taylan (1988, 1996), I will argue for (76) (contra Kornfilt, 2006 and Kelepir, 2007):

76. Nominalized complement clauses (NCC) lack Tense projection.

Below, I will argue that there is no TP in NCCs. Support comes from time adverbs. Past-time denoting adverbs cannot occur with non-past tenses, and future-time denoting adverbs cannot occur with Past Tense:

77. a. \*Biz dün geleceğiz.

we yesterday will.come

‘\*We will come yesterday.’

b. \*Biz yarın geldik.

we tomorrow came

‘\*We came tomorrow.’

However, in a setting where *Pazar* ‘Sunday’ follows *Cumartesi* ‘Saturday’ and both days precede the utterance time (Saturday<Sunday<Utterance Time), and the matrix event of saying occurs Saturday, whereas the event in the complement clause occurs Sunday, the embedded verb bears the future-time denoting  $-(y)AcAK$  in the complement clause although the reference time of the event in the embedded clause is [+past]:

78. Ahmet-Ø [Hasan-ın Pazar günü geleceğ-in]-i söylemişti-Ø Cumartesi.  
-nom -gen Sunday day will.come-3s-acc said-3s Saturday  
‘Saturday Ahmet said that Hasan was going to come Sunday.’

Likewise, future-time denoting adverbial can occur with non-future denoting -DIK in complement clauses, while the reference time of the event in the complement clause is [+future]:

79. [I can make the following statement to a friend on Thursday, where Friday and Saturday are the following consecutive days]:

Cumartesi gün-kü gazete-de Başbakan-ın Amerika-ya Cuma günü  
Saturday day-kl newspaper-loc prime.minister-gen -dat Friday day  
geldiğini] okuyacaksın.”

came will.read

‘You will read in Saturday’s newspaper that the prime minister came to the U.S.’

on Friday.’

So, since there isn’t a one-to-one correspondence between so-called Tense markers and time adverbs in NCCs, I argue that there is no Tense projection in NCCs in Turkish. They include AspP.<sup>79</sup>

In conclusion, NCCs, lacking a TP projection, have either AspP projection making perfective/imperfective distinction or a Modality Phrase making REALIS/IRREALIS distinction (Bybee, 1998).

#### 6. Against the ATB-Analysis of Gapping

Johnson (2006) takes Gapping as a special instance of ATB-movement: Low coordination reduction. In this approach, the finite auxiliary lies outside the coordination. He makes the following two assumptions:

---

<sup>79</sup> These complement clauses cannot be gerundive because they allow modals unlike gerundives in English:

- i. *pro* [Ecem-in gel-EBIL-eceğini] duy-dum.  
-GEN come-ABILITY/PROBABILITY heard  
‘I heard that Ecem can/might come.’
- ii. a. \*John’s must leaving was surprising.  
b. \*John’s musting leave was surprising.

(Milsark 2006: 441)

80. a. The Derived Subjects Hypothesis: subjects start out lower than their surface position. Subjects start out in the Specifier of  $\nu$ P, a phrase that determines the subject  $\theta$ -role and voice of the clause.
- b. Argument Movement can violate Ross's Coordinate Structure Constraint<sup>80</sup>

Since the subject of the first conjunct moves out the coordinated structure to Spec, TP, a violation of Coordinate Structure Constraint (CSC) violation is expected to occur. He offers two explanations as to why no CSC violation would occur:

81. a. Coordinations are asymmetric, licensing apparent violations of CSC (Büring and Hartmann 1998, Hartmann 1998)
- b. A well-formedness condition on Logical Forms, which need not hold of surface forms.
82. Let  $\alpha$  be a term outside a coordination,  $C$ . If  $\alpha$  binds a variable in one conjunct of  $C$ , then it must bind a variable in all conjuncts of  $C$ .

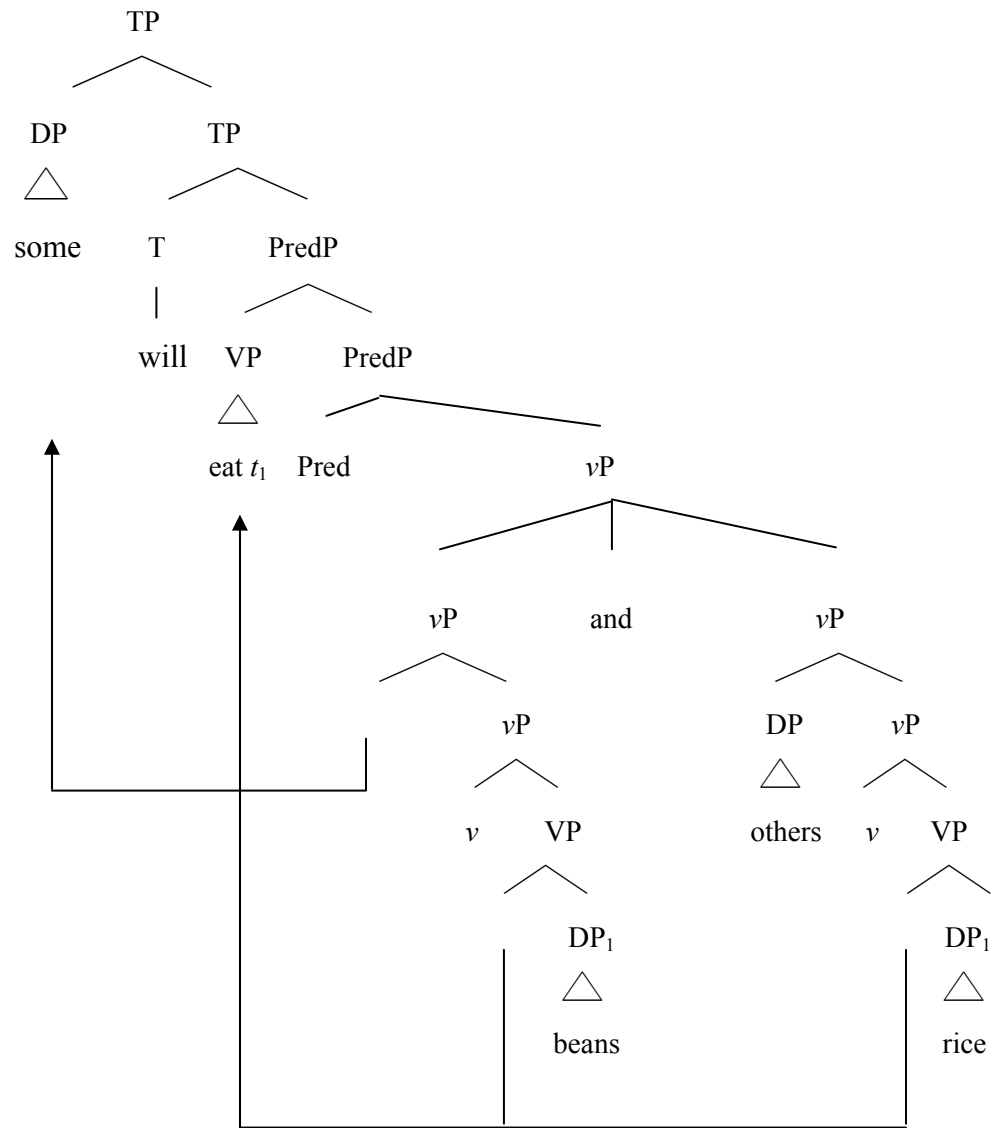
Under Johnson's analysis,  $\nu$ Ps are coordinated complements under an auxiliary in "main verb Gapping" (83), from which the subject of the first conjunct moves to Spec, TP, and VP of both conjuncts ATB-moves to Spec, PredP:

83. Some will eat beans and others rice.

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<sup>80</sup> I.e., A-movement.

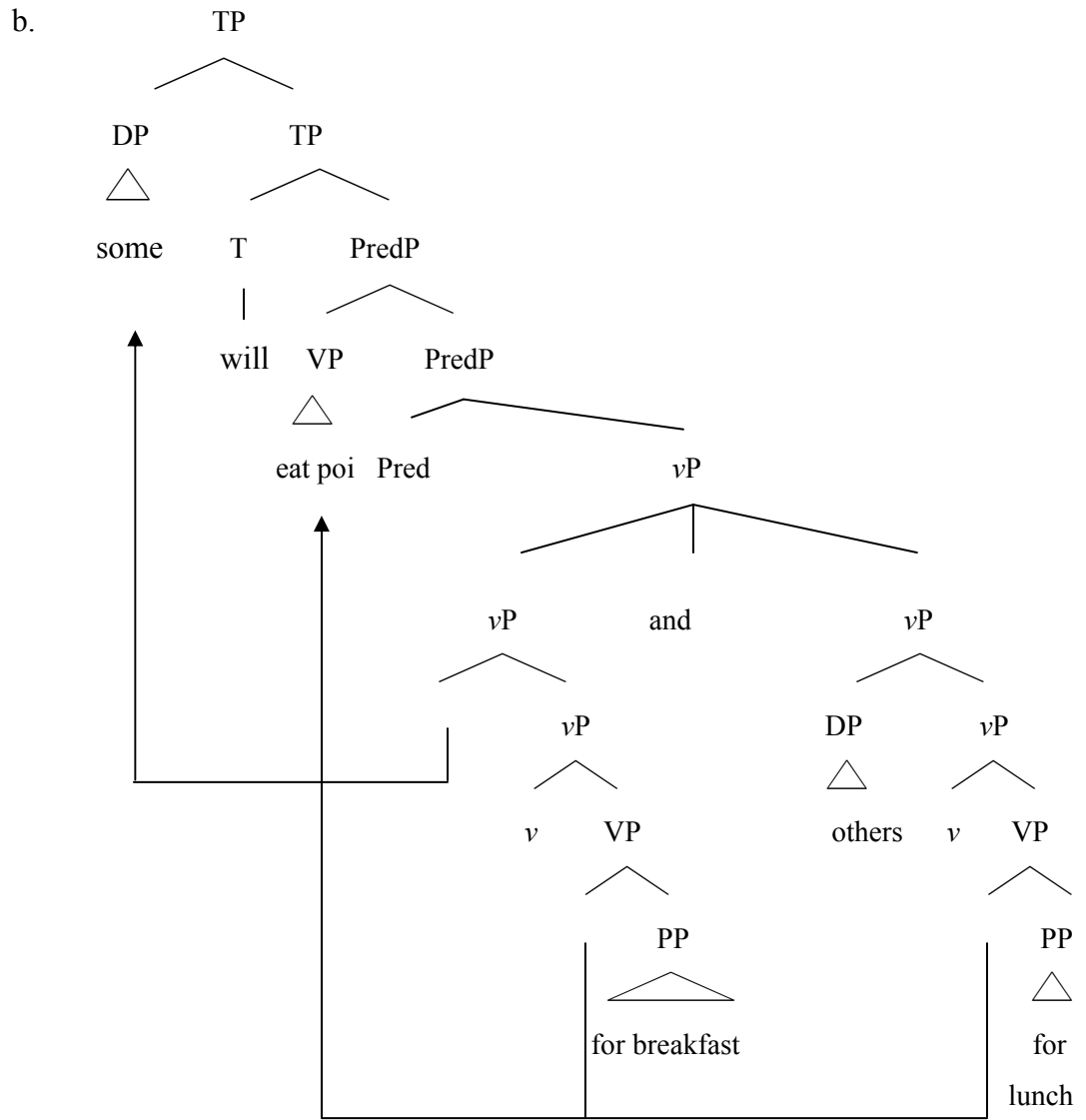
84.



(Johnson 2006: 22)

In a similar case where adjuncts differ, the lower segments of VPs that adjuncts modify undergo ATB movement to Spec, PredP.

85. a. Some will eat poi for breakfast and others for lunch.



(Johnson 2006: 23)



One problem for generalizing Johnson’s analysis to Gapping in Turkish is that word order of correlates in the antecedent clause and of remnants need not be parallel:

86. a. *SOV & SO*

Adam kitab-1 okudu, çocuk da<sup>81</sup> dergi-yi.  
 man book-ACC read child also magazine-ACC  
 ‘The man read the book, and the child, the magazine.’

b. *OSV & SO*

Kitab-1 adam okudu, çocuk da dergi-yi.  
 book-ACC man read child also magazine-ACC

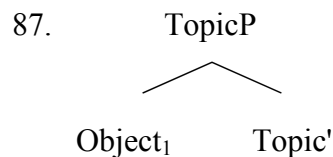
c. *SOV & OS*

Adam kitab-1 okudu, dergi-yi de çocuk.  
 man book-ACC read magazine-ACC also child

d. *OSV & OS*

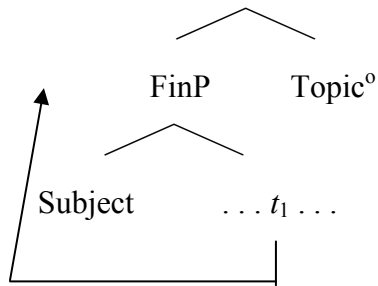
Kitab-1 adam okudu, dergi-yi de çocuk.  
 book-ACC man read magazine-ACC also child

Cases where object precedes subject are scrambling structures, where the scrambled object is topicalized in Turkish (Taylan, 1984). The TopicP is assumed to be above FinP. In the data above where object precedes subject, object is also [+topic], which means that it occupies Spec, TopicP above FinP:

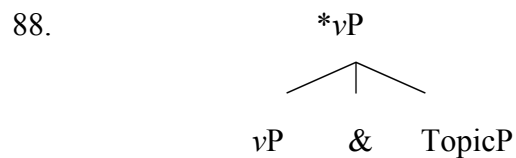



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<sup>81</sup> -*da* ‘also’ is optional.



So, (87) is also the representation for the ellipsis clause where the ordering of remnants is object + subject (86c-d). (86c) is specifically problematic for Johnson because the first conjunct can be  $vP$  but the second conjunct has to be TopicP. This is illicit because conjuncts are not identical - $vP$  vs. TopicP:



Another problem with generalizing Johnson's (1996/2004) analysis to Gapping in Turkish is related to the Case of the subject remnant. He assumes that Agr<sup>o</sup> (Fin<sup>o</sup> in our terminology) assigns Case to both subjects (since it c-commands both) and since both are at the edge of a phase (no other case-assigner c-commands them):

#### 89. ASSIGN CASE

A Case assignor,  $\alpha$ , licenses its Case on a DP  $\beta$  just in case  $\alpha$  c-commands  $\beta$  and there is no phase all of whose segments dominated  $\beta$  but not  $\alpha$ .

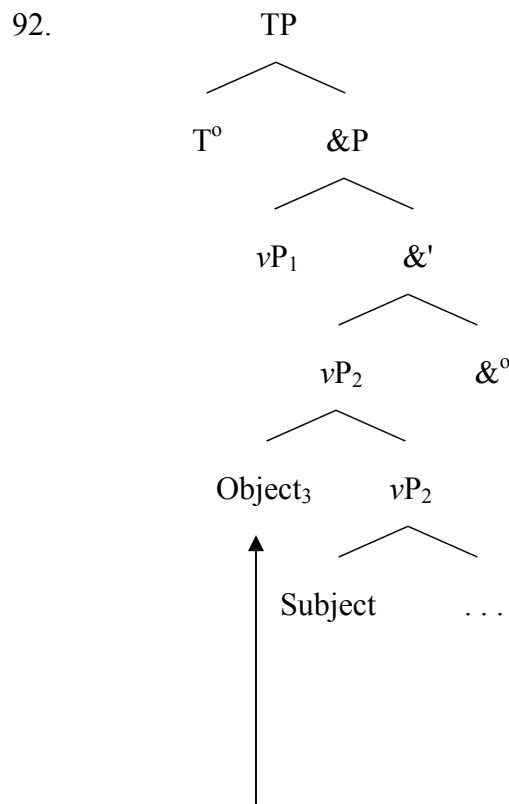
(Johnson 1996/2004: 42)

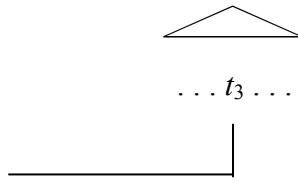
However, this does not account for how Case is assigned to subjects not in the edge of their conjunct, as Johnson himself notes (referring to (90)) (the relevant Turkish example being 86c repeated as 91). In (91), the object remnant precedes the subject remnant, and it still bears Accusative Case and the subject bears Nominative Case. The object would be dominated by only one segment of  $vP$ , which would make it accessible for Case assignment by  $T^0$  under Johnson's system (92):

90. The beans, Harry cooked and the potatoes, Henry. (Hankamer 1979: 151)

91. SOV & OS

Adam kitab-ı okudu, dergi-yi de çocuk.  
 man book-ACC read magazine-ACC also child  
 'The man read the book and the magazine, the child.'





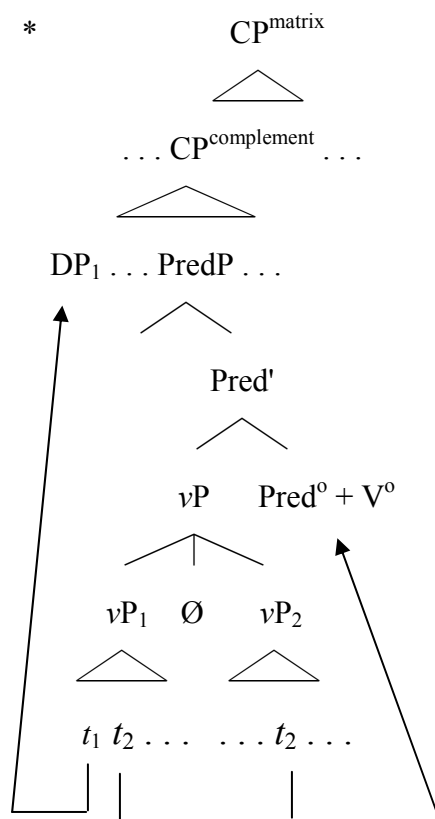
A third problem for Johnson would be why Gapping cannot occur in complement clauses when they are in their canonical position (ex. 32-33 repeated as 93-94, respectively). Under his analysis, a nominalized complement clause would contain a coordination of two *v*Ps, where the subject of the first conjunct would raise to a proper position to satisfy the EPP of a relevant functional head and check its own Case features, and the verb would ATB-move from both conjuncts to Pred<sup>0</sup> and then to higher functional heads – keep in mind that Turkish is an overt-V-raising language. Since the system would work in terms of the size of coordinated chunks and type of element (ATB-)moved, no problem would be expected:

93. \*Zeynep [[Hasan-in karides-i ye-diğ-in-i], [Mehmed-in de  
 Hasan-gen shrimp-acc eat-fnom-3.sg-acc Mehmed-gen and  
 istiridye-yi \_\_\_ ]] duy-du  
 oyster-acc hear-past  
 ‘ZEYNEP heard that Hasan ate the shrimp, and Mehmet (ate) the oyster.’

94. \*Ahmet [[Hasan karides-i ye-di], [Mehmet te istiridye-yi \_\_\_ ]]  
 Ahmet Hasan shrimp-acc eat-past Mehmet and oyster-acc  
 san-ıyor.  
 believe-prpprog  
 ‘Ahmet believes Hasan ate the shrimp and Mehmet (ate) the oyster’

95.

\*



Another problem with Johnson's analysis is related to the occurrence of high-level adverbs in gapping in Turkish. Speaker-oriented adverbs can be contrasted in gapping:

96. Ibrahim *kesinlikle* gelecek , Uğur *belki* gelecek.  
definitely will.come                      perhaps will.come  
'Ibrahim definitely will come and Uğur maybe ~~will come~~.'

The fact that speaker-oriented adverbs cannot follow manner adverbs suggests that they merge in a projection higher than *vP*, where manner adverbs are merged:

97. Ahmet (*kesinlikle*) yavaş (*\*kesinlikle*) yürüyor.  
definitely slow                      definitely walking  
'Ahmet definitely walks slowly.'

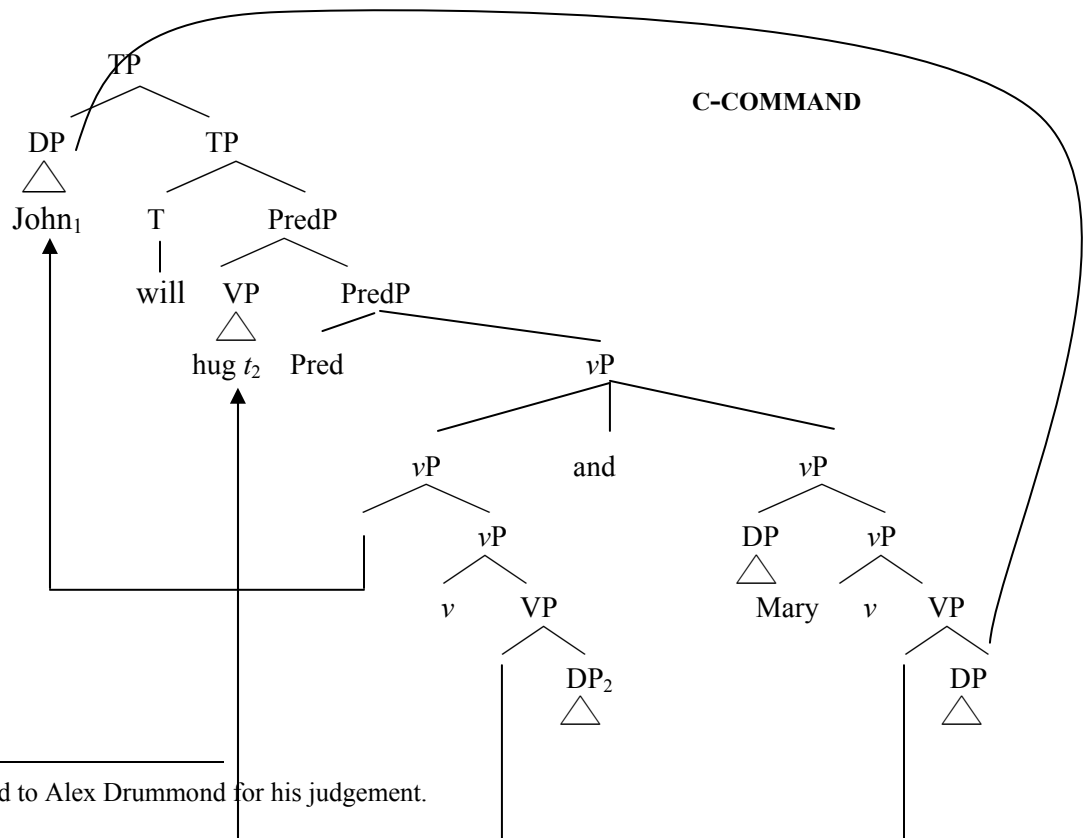
Since gapping is *vP*-coordination in Johnson's account, occurrence of two speaker-oriented adverbs would not be expected since two contrasting adverbs would not merge in the same projection. However, PF-deletion of gapping that assumes coordination of two CPs would account for the occurrence of two contrasting speaker-oriented adverbs in gapping since each CP can host a different speaker-oriented adverb.

Another problem with Johnson's analysis is related to binding of a pronoun in the second conjunct by the subject in the first conjunct:

98. John<sub>1</sub> will hug Mary and Mary him<sub>1</sub>.<sup>82</sup>

Under Johnson's analysis, *John* c-commands *him*, and it is also in the binding domain of *him*. Under the Binding Condition B, a pronoun needs to be free in its binding domain. So, this is another problem for Johnson's analysis:

99.



<sup>82</sup> I am indebted to Alex Drummond for his judgement.

---

A final problem with Johnson's analysis is that both conjuncts have to match in (non-)interrogativity, just as required in non-elliptical conjuncts. In other words, both conjuncts have to be either interrogative or non-interrogative. In a case where one is interrogative and the other is not, the structure is ungrammatical (100a), as its non-elided version is (100b):

100. a. \*Who is eating ice-cream and Mary chocolate?  
 b. \*Who is eating ice-cream and Mary is eating chocolate?

in contrast to:

101. a. Who is eating ice-cream and who (is eating) chocolate?  
 b. John is eating ice-cream and Mary (is eating) chocolate.

where both conjuncts are interrogative (101a) or both are non-interrogative (101b).

Under Johnson's theory, coordination of vPs + ATB-movement, there would be no position to encode interrogativity in any conjunct since each conjunct is a vP. There is only one CP projection above the coordination in his theory, where interrogativity is encoded. So, it would be hard to explain the (non-)interrogativity parallelism in his theory since (non-)interrogativity is encoded in neither conjunct, and therefore the conjuncts cannot be compared for the (non-)interrogativity parallelism. On the other



hand, in my analysis, since each conjunct is a CP –where (non-)interrogativity is encoded, the two conjuncts can be compared for the (non-)interrogativity parallelism.

In conclusion, Johnson’s analysis of Gapping as ATB-movement under low-coordination cannot explain word-order variations between remnants and their correlates in the antecedent clause, the Case of the remnant subject in nominalized complement clauses, nor why Gapping cannot occur in complement clauses in their canonical position and the occurrence of speaker-oriented adverbs in gapping in Turkish, among other issues introduced above.

### 7. Back to the Past

In this section, I will give a summary of the first studies on Gapping in the generative framework: Ross (1967) and Maling (1972). Then, I will point out a problem from Turkish for Ross’ (1967) generalization in (102).

Ross makes the following generalization (102) based on data from English, Japanese and Russian, as schematized in (103 & 104):

102. The order in which Gapping operates depends on the order of elements at the time that the rule applies; if the identical elements are on left branches, Gapping operates forward; if they are on right branches, it operates backward.

103. a. SVO + SVO + SVO + . . . + SVO  $\Rightarrow$

b. SVO + SO + SO + . . . + SO

104. a. SOV + SOV + SOV + . . . + SOV  $\Rightarrow$   
 b. SO + SO + . . . + SO + SOV

For Ross, Japanese has only backward Gapping because identical elements are on left branches, whereas English has only forward Gapping because identical elements are on right branches.

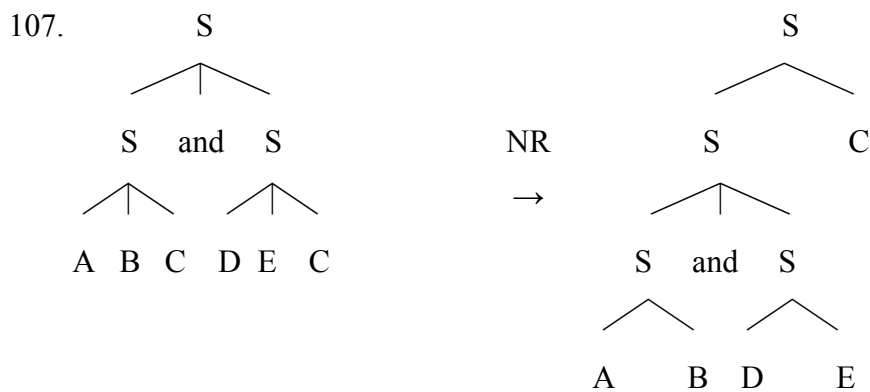
He notes that Turkish and Hindi have both forward and backward Gapping although their word order is SOV just like Japanese. To explain this difference, he claims that Hindi and Turkish are underlyingly SVO languages and also have a rightward scrambling rule (105) and that Gapping -being an anywhere rule- can apply before or after scrambling, an optional operation, giving either forward or backward Gapping.

105. . . . A . . . X  
 1    2  $\Rightarrow$   
 0    2 + 1

Under Ross' theory, when Gapping applies to the underlying order in Hindi and Turkish, forward Gapping is derived (106a), and when Gapping applies after scrambling, backward Gapping is derived (106b):

106. a. SVO + SVO + SVO + . . . + SVO  $\Rightarrow$   
       SVO + SO + SO + . . . + SO  
 b. SVO + SVO + SVO + . . . + SVO  $\Rightarrow$  SCRAMBLING  
       SOV + SOV + SOV + . . . + SOV  $\Rightarrow$  GAPPING  
       SO + SO + SO + . . . + SOV

Maling (1972), on the other hand, argues against Ross stating that ‘no claim about base order can be made on the basis of Gapping, since it is only the input order of constituents after the application of reordering rules, and not the deep structure order, that is relevant’ (p. 106), suggests that Gapping is not a two-way rule which can derive both forward and backward Gapping structures. Following Jackendoff (1971), she assumes that Gapping is not an anywhere rule, and she contends that there are two separate rules: ‘forward Gapping’ and ‘node raising’. In Maling’s theory, backward Gapping structures are derived by ‘node raising’:



(Maling 1972: 103)

Maling also gives the following set of hypotheses as the *One-Way Gapping Proposal* (p. 104):

108. a. Gapping operates only forward.
- b. Node Raising and Gapping are ordered after any movement rules which affect the linear position of the verb.
- c. If a language has Gapping, then it also has Node Raising.

Maling gives two arguments that forward and backward Gapping are different and that backward Gapping behaves as Node Raising does. The first argument is that forward Gapping ‘cannot apply to auxiliary verbs in subordinate clauses’ (p. 106), whereas backward Gapping can in German (109 vs. 110).<sup>83</sup>

109. ?\*Weil Peter den Brief geschrieben hat und Heidi das Buch gelesen,  
because the letter written has and the book read  
wurde keine Mathematik getan.  
was no math done  
‘No math has been studied because Peter has written the letter and Heidi (\*has)  
read the book.’

110. Weil Peter den Brief geschrieben und Heidi das Buch gelesen hat,  
because the letter written and the book read has  
wurde keine Mathematik getan.  
was no math done  
‘No math was studied because Peter (has) written the letter and Heidi has read the  
book.’

(ibid., p. 106)

Second, the only condition on backward Gapping is that the verb be in final position linearly. When an argument follows the verb linearly, forward Gapping can be applied but backward Gapping cannot:

111. a. Weil ein Mann, der eine Taschenuhr trug, nach Rom \_\_\_\_1 ,

---

<sup>83</sup> I am indebted to Johannes Jurka for glossing the German data.

- because a man who a pocket.watch wore to Rom  
 und eine Frau, die einen Pelzmantel trug, nach Paris \_\_\_\_<sub>1</sub> *fuhr*<sub>1</sub>, . . .  
 and a woman who a fur.coat wore to Paris went  
 ‘. . . because a man who wore a pocket-watch (went) to Rom and a woman  
 who wore a fur coat went to Paris.’
- b. \*Weil ein Mann nach Rom \_\_\_\_<sub>1</sub>, der eine Taschenuhr trug,  
 because a man to Rom who a pocket-watch wore  
 und eine Frau, die einen Pelzmantel trug, nach Paris \_\_\_\_<sub>1</sub> *fuhr*<sub>1</sub>, . . .  
 and a woman who a fur.coat wore to Paris went  
 ‘. . . because a man (went) to Rom who wore a pocket-watch and a woman  
 who wore a fur coat went to Paris.’
- c. \*Weil ein Mann, der eine Taschenuhr trug, nach Rom \_\_\_\_<sub>1</sub>,  
 because a man who a pocket.watch wore to Rom  
 und eine Frau, nach Paris \_\_\_\_<sub>1</sub> *fuhr*<sub>1</sub>, die einen Pelzmantel trug, . . .  
 and a woman to Paris went who a fur.coat wore  
 ‘. . . because a man who wore a pocket-watch (went) to Rom and a woman went  
 to Paris who wore a fur coat.’
- d. \*Weil ein Mann nach Rom \_\_\_\_<sub>1</sub>, der eine Taschenuhr trug,  
 because a man to Rom who a pocket-watch wore  
 und eine Frau nach Paris \_\_\_\_<sub>1</sub> *fuhr*<sub>1</sub>, die einen Pelzmantel trug, . . .  
 and a woman to Paris went who a fur.coat wore  
 ‘. . . because a man (went) to Rom who wore a pocket-watch and a woman went  
 to Paris who wore a fur coat.’

(ibid. p. 108, with slight presentational modifications)

Backward Gapping is grammatical only in (111a) but not in (111 b-c-d) because ‘both occurrences of *fuhr* [are] in final position’. However, Maling notes, forward Gapping is possible in all four of them, where the second occurrence of *fuhr* is deleted (I have reconstructed the following from her remarks):

112. a. Weil ein Mann, der eine Taschenuhr trug, nach Rom *fuhr*,  
because a man who a pocket.watch wore to Rom went  
und eine Frau, die einen Pelzmantel trug, nach Paris ~~*fuhr*~~, . . .  
and a woman who a fur.coat wore to Paris went  
‘. . . because a man who wore a pocket-watch went to Rom and a woman  
who wore a fur coat (went) to Paris.’
- b. Weil ein Mann nach Rom *fuhr*, der eine Taschenuhr trug,  
because a man to Rom went who a pocket-watch wore  
und eine Frau, die einen Pelzmantel trug, nach Paris ~~*fuhr*~~, . . .  
and a woman who a fur.coat wore to Paris went  
‘. . . because a man went to Rom who wore a pocket-watch and a woman who  
wore a fur coat (went) to Paris.’
- c. Weil ein Mann, der eine Taschenuhr trug, nach Rom *fuhr*,  
because a man who a pocket.watch wore to Rom went  
und eine Frau, nach Paris ~~*fuhr*~~, die einen Pelzmantel trug, . . .  
and a woman to Paris went who a fur.coat wore  
‘. . . because a man who wore a pocket-watch went to Rom and a woman (went)  
to Paris who wore a fur coat (went) to Paris.’
- d. Weil ein Mann nach Rom *fuhr*, der eine Taschenuhr trug,  
because a man to Rom went who a pocket-watch wore  
und eine Frau nach Paris ~~*fuhr*~~, die einen Pelzmantel trug, . . .  
and a woman to Paris went who a fur.coat wore  
‘. . . because a man went to Rom who wore a pocket-watch and a woman (went)  
to Paris who wore a fur coat.’

As stated previously, Ross (1970) claims that the underlying word order of Turkish is SVO. In this scenario, a quantifier in subject position is supposed to take scope over a

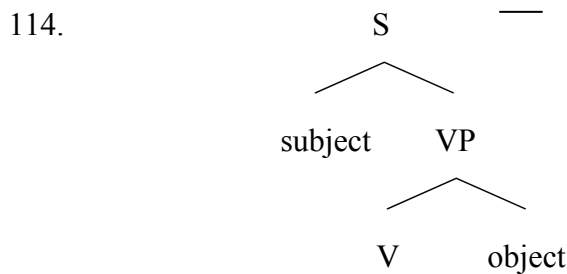
quantifier in object position in a case where the surface order is SVO because the subject quantifier c-commands the object quantifier (114):

113. a. Surface Order

subject + verb + object

b. Scope<sup>84</sup>

subject > object



However, we see the opposite fact. The post-verbal quantifier takes scope over the preverbal quantifier (115b). So, as Kural concludes, the underlying word order of Turkish cannot be SVO. It has to be SOV, where when the object is right-adjoined to the clause it takes scope over the subject (116):

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<sup>84</sup> Turkish has rigid scope (Kural 1997, Kelepir 2001). A quantifier cannot take scope over another quantifier that is hierarchically higher. For exceptional behavior of Accusative-marked indefinites, see Kelepir (2001).

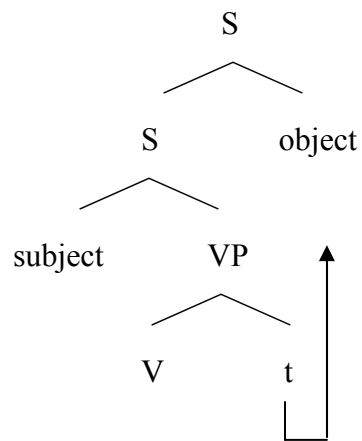
- i. [Üç kişi] herkesi dün aramış.  
 three person-NOM everyone-ACC yesterday call-PAST-3SG  
 ‘Three people called everyone yesterday.’

( $3x \forall y [x \text{ call } y \text{ yesterday}]$ ;  $*\forall y 3x [x \text{ call } y \text{ yesterday}]$ )

(Kural 1997: 504)

115. a. [Üç kişi] herkesi dün aramış.  
 three person-NOM everyone-ACC yesterday call-PAST-3SG  
 ‘Three people called everyone yesterday.’  
 ( $3x \forall y [x \text{ call } y \text{ yesterday}]$ ;  $*\forall y 3x [x \text{ call } y \text{ yesterday}]$ )
- b. [Üç kişi] dün aramış herkesi.  
 three person-NOM yesterday call-PAST-3SG everyone-ACC  
 ‘Three people called everyone yesterday.’  
 ( $\forall y 3x [x \text{ call } y \text{ yesterday}]$ ;  $*3x \forall y [x \text{ call } y \text{ yesterday}]$ )

116.



8. Island-Sensitivity of Gapping



Gapping is island-sensitive; in other words, remnants cannot be extracted out of an island that occurs inside a conjunct –likewise, the correlates of the remnants occur in an island in the first conjunct.<sup>85, 86</sup>

117. a. \*Hasan [<sub>RC</sub> Filiz’e çiçek veren] adamla konuştu, Hasan [<sub>RC</sub> Tolga’ya kitap to.Filiz flower giving with.man spoke to.Tolga book veren] adamla —konuştu.<sup>87</sup>

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<sup>85</sup> Notice that the English version of (117a) is grammatical:

- i. Hasan talked to the man who gave Filiz flowers and Tolga a book.

I assume that this includes Gapping within the RC. Although it seems to be coordination of two DPs (i.e., *the man* and *the man who gave Tolga a book*) since English is a head-initial language, I assume that it is a RC-internal clausal coordination (i.e., . . . [gave Filiz flowers] and [~~gave~~ Tolga a book]). This is possible in English since Gapping is licensed in coordinated non-matrix structures unlike Turkish.

<sup>86</sup> Of course, remnants need to be clause-mate, as the ungrammaticality of (i) shows:

- i. \*John said you kissed Mary, and Bill ~~said you kissed~~ Mary.

However, Lasnik (2006) notes that when the embedded subject is bound by the matrix subject, remnants can be cross-clausal (see also Kuno (1976)):

- ii. John<sub>i</sub> thinks that he<sub>i</sub> will see Susan and Harry<sub>j</sub> ~~thinks that he<sub>j</sub> will see~~ Mary.

<sup>87</sup> Since *Tolga-ya* ‘to Tolga’ and *çiçek* ‘flower’ move to the left-edge of the matrix clause and the matrix FinP is elided, the matrix subject is also elided.

giving with.man spoke

‘\*Hasan talked to the man who gave Filiz flowers and (Hasan talked to the man who gave) Tolga a book.’

b. \*[[Conjunct1 [CP . . . [RC . . . DP<sub>1</sub> . . . DP<sub>2</sub> ] ] ] & [Conjunct2 DP<sub>3</sub> DP<sub>4</sub> [~~CP~~ . . . [~~RC~~ . . . ~~t<sub>3</sub>~~ . . . ~~t<sub>4</sub>~~ ] ] ] ] ]

In (117a), the remnants move out of a Relative Clause. The fact that they follow the matrix verb *konuştu* ‘spoke’ of the first conjunct shows that each conjunct is a matrix clause and that the remnants move to the left periphery of the second conjunct (117b).<sup>88</sup>

The following data where the remnants are extracted out of a complement clause shows that Gapping is not clause-bound in Turkish. This means that remnants can cross the clause they are merged in and can move to a higher clause:

118. Tolga [ Ecem-in Uğur-a çiçek verdiğini ] söyledi, Kaan-a<sub>1</sub> kitap<sub>2</sub>  
gen -dat flower gave said -dat book  
[Tolga [ Ecem in ~~t<sub>1</sub>~~ ~~t<sub>2</sub>~~ verdiğini ] söyledi.  
-gen gave said

‘Tolga said that Ecem gave Uğur a flower and (Tolga said that Ecem gave) Kaan a book.’

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<sup>88</sup> When the remnants precede the matrix verb, the structure is fine, but this is a low level coordination:

- i. Hasan [<sub>RC</sub> Filiz-e çiçek Tolga-ya kitap veren] adam-la konuştu.  
to.Filiz flower to.Tolga book giving with.man spoke  
‘Hasan talked to the man who gave Filiz a flower and Tolga a book.’

Under the ‘movement + deletion’ analysis of Gapping where remnants move to the left periphery, Gapping would be expected to be island-insensitive just like sluicing in English or fragment answers in Turkish. However, in English non-contrastive sluicing is island-insensitive, whereas contrastive sluicing is island-sensitive (Merchant 2001, 2008) just as contrastive fragment answers are (chapter 3) (119a-b-c from Merchant 2008: 147 and 119a'-b'-d-e from Merchant 2001: 115). The data below shows that sluicing and VPE with contrasting remnants are island-sensitive:

119. a. Abby speaks GREEK, but I don't remember what OTHER languages.  
a'. \*Abby wants to hire someone who speaks GREEK, but I don't remember what OTHER languages ~~she wants to hire someone who speaks~~.  
b. She met RINGO, but I don't know who else.  
b'. \*The radio played a song that RINGO wrote, but I don't know who else.  
c. He said he talked to ABBY, but I don't know who else ~~he said he talked to~~.  
d. \*Abby DOES want to hire someone who speaks GREEK, but I don't remember what kind of language she DOESN'T.  
e. \*BEN will be mad if Abby talks to Mr. RYBERG, and guess who CHUCK will.

As argued in the chapter on fragment answers, island-sensitivity is observed in elliptical structures where remnants contrast with their correlates in the antecedent clause/conjunct. Merchant (2008: 149), to explain the ungrammaticality of these cases, argues that focus movement, which is island-insensitive in both non-elliptical cases (Chomsky 1972, Rooth 1985, Kratzer 1991) and in VPE cases (120 from Kratzer 1991), can target the matrix VP but not matrix IP when it takes scope over an island. However, he continues, in sluicing

cases both the wh-phrase and its correlate need to take scope over the antecedent clause (i.e. over the IP projection of the antecedent clause). However, the contrasting, focused correlate cannot take scope over the matrix IP. For Merchant, this non-parallelism between the correlate and the wh-phrase explains why (120a) is grammatical but sluicing and VPE cases where the remnant is a wh-phrase cases are ungrammatical.

120. a. I only talked to the woman who chaired the ZONING BOARD because you did.

b. Interpreted as: *the only x such that I talked to the woman that chaired x because you talked to the woman who chaired x is the zoning board.*

In the non-island cases, the focused/contrasting wh-phrase and its correlate take scope over the matrix clause, ‘yielding an LF-parallel structure or a structure which satisfies e-givenness’ (Merchant 2008: 150) (121a represents the antecedent clause, and 121b represents the ellipsis clause of 119a):

121. a. GREEK<sub>F</sub>  $\lambda x$  [<sub>IP</sub> Abby [<sub>VP</sub> x  $\lambda x'$  [speaks x']]]

b. what OTHER languages  $\lambda x$  [<sub>IP</sub> Abby [<sub>VP</sub> x  $\lambda x'$  [speaks x']]]

(Merchant 2008: 150-1)

In the island cases, however, the focused/contrasting correlate cannot take scope in a position parallel to the wh-remnant, which takes scope over the whole antecedent clause (122a represents the antecedent clause, and 120b represents the ellipsis clause of 119a):

122. a. [<sub>IP</sub> Abby [<sub>VP</sub> \*GREEK<sub>F</sub>  $\lambda x$  [<sub>VP</sub> wants to hire someone who speaks x ]]]

(ibid., p. 151)

b. what OTHER languages  $\lambda x$  [<sub>IP</sub> Abby . . .

### 9. Gapping and Negation

Repp (2005) observes that negation in the first conjunct gives us three readings in

Gapping structures:

123. a. Distributed scope:  $(\neg A) \wedge (\neg B)$

Max didn't read the book and Martha the magazine. (Repp 2005: 41)

b. Narrow scope:  $(\neg A) \wedge (B)$

Pete wasn't called by Vanessa but John by Jessie. (Repp 2005: 93)

c. Wide scope:  $\neg (A \wedge B)$

Kim DIDN'T play bingo and Sandy golf. (Repp 2005: 81)

To explain these differential readings of negation, she suggests a (narrow syntax) copying model, claiming that deletion accounts face the difficulty of relying on some operation of non-local comparison, which she considers is also too late in the derivation.

In the following, I will give a summary of her analysis, point out its problematic aspects and show that at least my version of PF-deletion analysis can also account for the data she looks at.

## 9.1. Distributed Readings

This refers to Gapping structures where negation takes distributed scope:

124.  $(\neg A) \wedge (\neg B)$

In distributed readings, the contrast pairs carry strong pitch accents, and the verb is generally deaccented. Each conjunct is a separate intonational unit (Carlson 2001a,b; Féry & Hartmann 2001, and Winkler 2003). Repp (2005) states that non-clause-final correlates and their remnants are marked by a rising pitch accent and clause-final correlates and remnants, with falling accents.

### 9.1.1 English vs. German: Lack of Distributed Readings in German

without *Nicht*

Unlike English, Gapping in German does not give a distributed reading without the Negation marker *nicht* in the second conjunct:

125. a. Max didn't read the book and Martha the magazine.

b. Max hat das Buch nicht gelesen und Martha ??(nicht) die Zeitschrift.

(Repp 2005: 41)

She, further, reports that German speakers reject (125b) because 'the second conjunct dangles between a negative and a positive reading'. However, it is not clear whether

(125b) is ungrammatical *per se* or that it is grammatical but lacks distributed reading. She does not specify what reading (125b) has if it is grammatical.

She points out that *nicht* occurs in different positions in both conjunct: it follows the DO *das Buch* in the first conjunct but precedes the DO *die Zeitschrift* in the second conjunct. However, she leaves this difference as an open issue (see p. 262-3). One could speculate that the second remnant right-adjoins to the clause (i.e. CP) or the phrase that hosts *nicht* or any phrase above it. This would give us the relevant word order.

To explain this difference between English vs. German, she argues that *not* is a head and therefore merged cyclically in English but *nicht* is an adjunct and therefore merged post-cyclically in German.

To show that *not* is a head in English, she notices that an auxiliary can cross adverbs and the Neg<sup>0</sup> (126a), whereas a main verb cannot (126b):

126. a. Mary is {often | not} running the marathon.

b. \*Mary runs {often | not} the marathon. (Repp 2005: 46)

Then, she also notes that in French the same difference between main verbs and auxiliaries occurs only in infinitive clauses (127a-b vs. 127c-d). Main verbs cannot cross Neg<sup>0</sup> (127d) but adverbs (127f), unlike English main verbs:

127. a. Ne pas être heureux . . .

*ne* not be happy

b. N'être pas heureux . . .

*ne* be not happy

- c. Ne pas sembler heureux . . .    d. \*Ne sembler pas heureux . . .  
*ne* not seem happy                      *ne* seem not happy  
e. Souvent paraître triste . . .    f. Paraître souvent triste . . .  
often to-look sad                      to-look often sad

(Repp 2005: 47)

After giving this data, Repp cites Pollock (1989): ‘Pollock takes this to be evidence that the negation is not the same as an adverb, i.e. that adverbs and negation do not occur in the same structural position’ (p. 47). However, Pollock’s point is true for French data, not English data (see 126). In (126), if the Neg<sup>o</sup> blocks raising of main verbs, so do adverbs. However, if main verbs do not raise overtly in English at all whether there is Neg<sup>o</sup> or adverbs or not ( Klima 1966,<sup>89</sup> Jackendoff 1972, Pollock 1989, Chomsky 1991), neither Neg<sup>o</sup> nor adverbs block verb-raising by themselves. All in all, this data does not give any argument that Neg<sup>o</sup> is different from adverbs with respect to whether it is a head but not an adjunct in English.

Another set of evidence that Repp (2005) gives with respect to head status of *not* is VP-ellipsis in subjunctives, which is the only evidence for the head status of *not*.<sup>90</sup>

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<sup>89</sup> Jackendoff (1972) refers to this work:

Klima, Edward S. 1966. Unpublished lectures. Massachusetts Institute of Technology.

<sup>90</sup> In the relevant paradigm, Repp also gives the following:

- i.            \* Kim needs to be there but it is imperative that the other organizers don’t \_\_\_\_ .



128. a. \* Kim needn't be there but it is imperative that the other organizers \_\_\_\_.
- b. Kim needs to be there but it is better that the other organizer not \_\_\_\_.
- c. \* Kim needs to be there but it is better that the other organizers too.

(Repp 2005: 56)

As to the grammatical (128b), Repp, observing that *not* licensing the ellipsis site, concludes that 'the negation in subjunctives must be a head: it can license VP ellipsis', following Baltin (1993), Lobeck (1995) and Postdam (1997). This seems to be the only argument for the head-nature of *not* so far.

As to the negation marker *nicht* in German, Repp claims that it is an adjunct, although she refers to Jacobs (1982), who states *nicht* is different from adverbs because 'it cannot occur in the forefield of a German V2-clause, a position where other adverbs can occur freely, and which is typically used to test phrasehood' (Repp 2005: 57):

129. {Ständig/Wahrscheinlich/\*Nicht} bewundert Luise Peter. (Jacobs 1982: 144)
- 'Luise admires Peter at all times. / Luise probably admires Peter. / Luise does not admire Peter.'

---

However, Howard Lasnik (p.c.) notes that since subjunctives select a non-finite complement clause *don't* cannot occur in non-elliptical cases in subjunctives, either. So, (i) is totally irrelevant to Repp's point:

- ii. \*Kim needs to be there but it is imperative that the other organizers don't need to be there.

Repp concludes that *nicht* cannot be a head because it does not block movement of auxiliaries (130a) and main verbs (130b). However, this does not mean that *nicht* is an adjunct. In French, negation does not block verb movement in non-finite clauses; however, it is not taken as an adjunct:

130. a. Hans hat nicht geweint  $t_{\text{that}}$ .

‘Hans did not cry.’

b. Hans grüßt seine Nachbarn nicht  $t_{\text{grüßen}}$ .

‘Hans does not greet his neighbours.’

(Repp 1005: 61)

The other options for *nicht* then are that it is either a negative marker occupying Spec, NegP (Grewendorf 1990) or that it is a modifier that adjoins to VP. Repp claims that *nicht* is an adverb that adjoins to VP. Her only evidence is that *nicht* follows frequency adverbs, assumed to be ‘situated above the subject in VP’ by Frey (2003) (ex. 129). However, the fact that frequency adverbs are situated above the subject in VP does not mean that they adjoin to VP; they might be merged in Spec, TP/AspP. Consequently, this does not mean that *nicht* adjoins to VP. The head that takes a frequency adverb in its Spec might be taking NegP as its complement with *nicht* in its Spec (like *ne pas* in French). Then, the Neg<sup>o</sup> could be a null head in German. Kayne (1989), for instance, has argued that there is a NegP in French, which does not block verb raising (Pollock 1989).

All in all, Repp’s arguments are inconclusive with respect to the head/adjunct status of *nicht*. The fact that an element is not head does not mean that it is an adjunct. It can be a

phrasal element selected by a head. For instance, arguments a verb selects are not heads, but this does not mean that they are adjuncts. If they are not heads, then they are phrases. Therefore, Repp's copying analysis of Gapping fails in explaining (non-)availability of distributive readings since it depends on head vs. adjunct status of Negation in English/German. Further, if an element is an adjunct, then it cannot be a head, on the contrary, it has to be a phrase because a head cannot adjoin to a phrase (Chomsky 1986). However, she does not give any argument for phrasal nature of *nicht*.

131. das ser sicher morgen niemandem trauen wird  
 'that he presumably will not trust anybody tomorrow' (Repp 2005: 64)

Repp also assumes that heads and arguments are merged cyclically, whereas adjuncts are merged post-cyclically (Boškovič (1997), Boškovič & Lasnik (1999), Chomsky (1993), Fox (1999, 2000), Fox & Nissenbaum (1999), Freidin (1986), Lebeaux (1988, 1991, 2000), Nissenbaum (1998, 2000), Ochi (1999), Stepanov (2001) and van Riemsdijk (1981)) and that this carries over to **copying** in Gapping. Heads and arguments are copied in a first cycle, whereas adjuncts are copied in a second cycle. She reports that adjuncts in general are more reluctant to get an interpretation in the second conjunct:

132. a. In Amsterdam heft Jan een taxi genomen en Marie de bus.  
 'In Amsterdam Jan took a taxi and Mary the bus.'  
 b. Wim had in Amsterdam in korte tijd meer vrienden gemaakt dan ik ooit vijanden.  
 'Wim had made more friends in Amsterdam in a short time than I ever made enemies {there | anywhere}.'

Coppen et. al. report that interpretation of the adverbial *in Amsterdam* ‘is more or less obligatory’ in ex. 132a but ‘less mandatory’ in ex. 132b (Repp 2005: 75). However, as she notices, ex. 132b is a comparative, and comparatives might have a totally different derivation than Gapping structures. Also, the difference between ‘more or less obligatory’ and ‘less mandatory’ is not clear enough to show that adjuncts are post-cyclic. Also, if ‘in Amsterdam’ is an adjunct in both sentences, it is supposed to be merged post-cyclically in both cases and give the acceptability judgments.

Repp also gives the following example from Van den Wyngaerd (1998):

133. weil Johann auf der Terrasse eine Sarabande tanzen will und Cecilia eine Pavane.  
‘because Johann wants to dance a saraband on the terrace and Cecilia a pavane.’

Van den Wyngaerd reports that it is unclear where Cecilia wants to dance her dance. However, Repp, in a footnote, remarks that word order is crucial. If the adjunct is post-verbal in the first conjunct, ‘[s]ome speakers . . . tend to interpret the adjunct to be present in the second conjunct’. This would mean that an adjunct is merged cyclically in post-verbal position but post-cyclically in pre-verbal position. However, this is economical neither derivationally nor methodologically. An adjunct should be merged either always post-cyclically or always cyclically:

134. weil Johann eine Sarabande auf der Terasse tanzen will und Cecilia eine Pavane.

She also notes that prosody also plays a role in interpretation: If *auf der Terasse* is deaccented, it is present in the second conjunct, and it is not present in the second conjunct if it gets a pitch accent. Again, this would mean that deaccenting goes with cyclic merge, and pitch accent with post-cyclic merge, which is economical neither derivationally nor methodologically. In conclusion, Repp's arguments for post-cyclic merge of adjuncts are inconclusive.

I checked a similar version of ex. 134 in English, and only one out of eight subjects reported that ex. 135 is ambiguous between *wants to dance a belly-dance somewhere* vs. *wants to dance a belly-dance on the terrace*, whereas the other seven subjects reported that they get only the *wants to dance a belly-dance on the terrace* reading. If adjuncts are merged post-cyclically in German, they are expected to be merged post-cyclically in English as well:

135. Jane wants to dance a swing dance on the terrace and Mary a belly-dance.

Repp assumes that the adjuncts given in ex. 132-133 are merged after the construction of a CP phase. In her copying analysis, contrastive elements merge with a phrasal skeleton copied from the first conjunct. Gapping structures with distributed readings are a CP-coordination. The first conjunct is constructed and merged first in the coordination structure. '[A]t first only the categories and relations necessary for cyclic merger are copied from the first conjunct to the second conjunct', which are merged with the new

(contrastive) phrases, after which adjuncts are merged post-cyclically. She continues (p. 78),

‘As clausal negation in German is an adjunct, it will not be considered in the first cycle. This then produces a contradiction when the derivation proceeds to the post-cyclic state. The result is an ungrammatical sentence, which cannot be interpreted. For adjuncts other than the negation, the late merger has not such drastic consequences: as we saw earlier, the produced ambiguity can be easily accommodated.’

It is not clear why post-cyclic merger of *nicht* would cause ungrammaticality. Since *nicht* is merged post-cyclically in the first conjunct, it is not clear what would go wrong with post-cyclic merge of *nicht* in the second conjunct. It is also not clear why copying would not occur after the post-cyclic merge of *nicht* in the first conjunct. This way, the phrasal skeleton copied from the first conjunct could also include *nicht*. Repp does not give any constraint to block that. She assumes that adjuncts like *nicht* can be copied only when they are needed, for example, to license an NPI. However, it is not clear how it is determined whether an element is needed. Since the contrastive elements are already in the Numeration, one would need to look into the Numeration of the second conjunct to be able to determine whether an element is needed, which would require Look Ahead in a very strong sense, looking into not only a structure but also Numeration.<sup>91</sup>

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<sup>91</sup> PF-deletion analysis would not have this Look Ahead problem because two conjuncts are compared and similar chunks are deleted in the second conjunct in Gapping.

Repp assumes that for a derivation to converge, its numeration needs to be consumed up, which includes adjuncts as well as non-adjunct material. In this view, the first CP in a ‘distributed reading’ Gapping structure converges only after *nicht* is merged. This means that copying of the phrasal skeleton applies only after *nicht* is merged. As I remarked before, this would not block copying of *nicht*. In summary, this is problematic for her analysis of lack of distributed readings in German without *nicht* occurring overtly in the second conjunct.

Furthermore, as she states in the quotation above, as identical/shared elements are copied from the first conjunct in Narrow Syntax, it is not clear how they are un-pronounced. If they are copied with their phonological features, they need to be deleted in the second conjunct. However, in Distributed Morphology framework, to which she stands close, syntactic categories are abstract, without any phonological features, and phonological features are inserted in the mapping to the Phonological Form (PF), called *Late Insertion*. In that framework, phonological features of both conjuncts are inserted late, i.e. in the mapping to PF. In this case, it is not clear why Late Insertion of shared elements occurs only in the first conjunct but not in the second conjunct. (Mapping to) PF does not care about (narrow-syntactic) derivational history, c-command, etc.

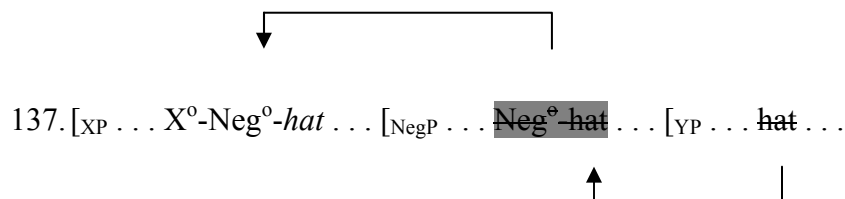
As a final remark, she assumes that in head-final languages like Korean and Japanese, the last conjunct is constructed and merged first, and that’s how only backward but not forward Gapping is possible in these languages. However, Turkish is also a head-final language, and both backward and forward Gapping are possible. This would mean that backward Gapping in Turkish, Japanese and Korean is derived the same way forward

Gapping is derived in English and German. However, there are crucial differences between forward Gapping in English and backward Gapping in Turkish. In the chapter on Right Node Raising, where I argue that backward Gapping is RNR (following Hankamer, 1979 and Postal 1974), crucial evidence is given to show that in backward Gapping structures only an identical element is deleted in the first conjunct.

One reason for the obligatory occurrence of *nicht* in the second conjunct in Gapping structures in German would be that Gapping cannot target NegP or any phrase above it as the elision site. For that reason, negation marker *nicht* is pronounced overtly. Then, the next question is why the Aux is not pronounced in the second conjunct, which precedes both the direct object and *nicht* in the first conjunct:

136. Max hat das Buch nicht gelesen und Martha ??(nicht) die Zeitschrift.


One way to explain this would be to assume that the Aux *hat* merges in a position lower than NegP but raises to a position above NegP, by raising first to the phonologically null Neg<sup>0</sup> position, and then the new amalgam raising to the relevant position where *hat* is pronounced:





In the second conjunct, on the other hand, the Neg head or a head below it but above the position where *hat* is base-generated could have [+E]-feature that instructs the head carrying it to unpronounce its complement. Since *nicht* is generated above the head with [+E]-feature, it is pronounced overtly. Further, the DO right-adjoins to the structure –as I stated above, *nicht* could precede the DO:

138. [ . . . [ *nicht* . . . Neg<sup>0</sup>/W<sup>0</sup><sub>[+E]</sub> [ . . . *hat* . . . DP . . . ] ] ] DP



Although I will not be able to pursue this issue further, the analysis line I have suggested could be one way to account for the obligatory occurrence of *nicht* in Gapping structures in German.

### 9.1.2 Auxiliary vs. main verb Gapping in English

The second issue Repp looks at with respect to distributed scope readings of negation is that in English Gapping cases where both auxiliary and main verbs lack (main verb Gapping) can give either *wide scope* or *distributed scope* reading (139), whereas cases where only the auxiliary verb lacks (auxiliary Gapping) gives only *wide scope* reading but not *distributed scope* reading (140):

139. a. Kim didn't play bingo and Sandy golf.  
 b. KIM didn't play BINGo and SANDy GOLF. (**distributed scope**)  
 c. Kim DIDN'T play bingo and Sandy golf. (**wide scope**)

(Repp 2005: 81)

140. a. John can't eat caviar and Mary eat beans. (Siegel 1984: 525)  
b. It is not possible (or desirable) for Ward to eat caviar and for Sue (simultaneously) to eat (merely) beans.

Siegel (1984) gives the following minimal pair:

141. a. Ward can't eat caviar and Sue, beans.  
b. Ward can't eat caviar, and Sue can't eat beans.  
c. It is not possible (or desirable) for Ward to eat caviar and for Sue (simultaneously) to eat (merely) beans.  
(Siegel 1984: 524)

The distributed scope reading is possible, according to Siegel, in a context like “Oh, no, I made caviar and beans for dinner, and then I found out that Ward can't eat caviar and Sue, beans”, whereas the wide scope reading is possible in a context like “Sue is supposed to be Ward's honored guest at dinner. Ward can't eat caviar and Sue, beans” (p. 524). She continues, “The [distributed] scope reading is true just in case *neither* person can eat the food named. The wide scope reading is true just in case it can't be that they *both* eat the foods mentioned”.

In wide scope readings, ‘the finite verb carries the strongest accent in the coordination’ (Repp 2005: 12), the whole coordination acts as a single intonational unit, and the contrast pairs bear weaker accent than those in distributed readings (Oehrle 1987, Siegel 1984, 1987, Winkler 2003). Repp concludes that negation cannot be copied in auxiliary

Gapping structures because a new predicate is introduced in the second conjunct, and, for some reason, the negative marker cannot be copied from the first conjunct. However, if we follow her analysis of wide scope readings (which I summarize in section 9.3), it's not *propositional* but *echoic* negation that exists in wide scope readings. The echoic negation, encoded in StrengthP, takes the coordinated TopicP's as its complement. If that is the only configuration for wide scope readings, auxiliary gapping in English needs to have this configuration, where the negation is echoic rather than propositional, and the coordination consists of TopicP's. The deep question still remains why echoic negation is the only possibility with auxiliary gapping in English.

Interestingly, Siegel (1984: 524 footnote 3) observes that wide scope in auxiliary gapping is available not only in negative contexts but also in non-negative contexts. In (142a), both wide scope and distributed scope readings (of the tense and modal) are available, in (142b) only distributed scope reading is available, and in (142c) only wide scope reading is available:

- 142. a. Ward can eat caviar and Sue, beans.
- b. Ward can eat caviar and Sue can eat/eats beans.
- c. Ward can eat caviar and Sue eat beans.

Therefore, the wide scope reading of auxiliary gapping structures is a more general phenomenon. The only possibility that comes to mind for these structures is a low-level coordination; i.e., vP-coordination (Johnson 1996/2004). Since there is only one

occurrence of negation/tense/modal, distributed scope reading is not possible, and only wide scope reading is available.

Repp also notices that auxiliary Gapping with negation in the first conjunct is ungrammatical in German:

143. *Max and Paul haven't done everything they were supposed to do to help in the kitchen:*

\*Max hat den Kuchenteller nicht abgewaschen und Paul die Salatschüssel abgetrocknet.

‘Max didn’t wash the cake dish and Paul didn’t dry the salad bowl.’

(Repp 2005: 89)

She points out that auxiliary Gapping in some cases gives *narrow scope* reading –where there is no negative interpretation in the second conjunct, which is unpredictable for Johnson (1996/2004, 2006). For these cases, she argues that a negated predicate is contrasted with a positive/non-negated predicate (following Horn’s (1989) distinction between *propositional negation* vs. *predicate negation*):

144. *Max and Paul haven't done everything they were supposed to do to help in the kitchen:*

Max hat den Kuchenteller nicht abgewaschen und Paul die Salatschüssel vergessen.

‘Max didn’t wash the cake dish and Paul forgot the salad bowl.’

In auxiliary Gapping structures, Repp notes, the second conjunct consists of a new subject a new (complex) predicate, so it is a  $vP$ , then a predicate. So, only predicate negation is available, but not propositional negation. If there is no overt negation marker, the second conjunct will not match with the first conjunct, and that's why (143) is ungrammatical. In (144), however, the semantics of the new predicate is compatible with the discourse requirements, so the structure is grammatical. However, this does not tell us why (139c) is not ungrammatical in English.

### 9.1.3 Interim conclusion

As summarized, Repp's analysis with respect to distributed scope readings in English and German is problematic. So, her copying analysis as it is cannot account for the phenomenon. An analysis of obligatory occurrence of *nicht* in German Gapping is possible in the PF-deletion analysis. As to the wide scope reading of auxiliary gapping structures, the only possibility seems to be the low level coordination (Johnson 1996/2004, 2006). Then, the next question is why (only) auxiliary gapping is (only) low-level coordination, which I leave as an open issue for future research.

## 9.2. Narrow Scope

In these 'narrow scope' Gapping structures, negation takes scope only on the first conjunct:

$$145. (\neg A) \wedge (B)$$

This is limited to certain conjunctions with: contrastive and corrective *but*, German *aber* and *sondern*. Each conjunct is a separate intonation unit, and negation in the first conjunct and contrasting elements in both conjuncts are marked. These cases are problematic for ‘small conjunct’ analyses such as Johnson (1996/2004, 2006) because negation is supposed to take scope over both conjuncts, each of which is a *vP*:

146. /KARL hat die /KATze \NICHT gestreichelt, aber /HANS den \HUND. (Repp 2005: 113)

Existence of *but* and *abern* can result in a positive reading of the second conjunct in Gapping (147&148, respectively), but it is illicit in most (non-negative) cases (149):

147. Pete wasn't called by Vanessa but John by Jessie.

148. Peter hat Vanessa nicht angerufen, aber Johann Jessica.  
'Peter didn't call Vanessa but Johann called Jessica.'

149. # John ate rice but Jim potatoes.

(Repp 2005: 93-94)

Repp notes that contrastive *but* ‘marks a scope boundary for negation and other propositional operators’. In the semantics and philosophy literature, *but* has been argued to show contrast between two states-of-affairs, and ‘the states-of-affairs denoted by the second conjunct somehow denies or negates conclusions that (might) have been drawn

from the meaning of the first conjunct' (Repp 2005: 93). The crucial question for Repp is why the second conjunct of a Gapping sentence lacks the negative reading.

*But* is sensitive to the information structure of a clause, and in a coordination structure contrastive topics and/or foci 'deliver . . . positively or negatively relevant information . . .' (ibid. p. 109), where contrasted elements bear the intonation pattern of contrastive topics and foci. Contrasted elements (DPs, PPs, etc) form a composite contrastive topic, and the polarity values of the conjuncts are the focus. That's why negation in the first conjunct must be marked, bearing focal stress, otherwise Gapping is degraded (because it is not taken as forming a contrast pair with the polarity value of the second conjunct) (146 repeated as 150):

150. /KARL hat die /KATze \NICHT gestreichelt, aber /HANS den \HUND.

The following need to hold in Gapping structures with *but* for narrow scope readings to hold:

151. i. Conjuncts A and B must be inversely relevant for a background hypothesis H.
- ii. A contains a contrastive topic and focus so that A and B both answer a question in the set of questions indicated by the contrastive topic.
- iii. All F-marked constituents in A must have an alternative in B.

(Repp 2005: 120)

In summary, the contrastive topics in the second conjunct form the set alternative to the contrastive topics in the first conjunct, and the F-marked negation presenting negative

polarity in the first conjunct contrasts with positive polarity in the second conjunct, the contrasting polarity values are required by the semantics of *but*.

In contrast to Repp's claim, (my version of) PF-deletion can easily account for narrow scope readings. Under the view that contrasting elements move above the deletion site, the (cross-linguistically generally null) positive polarity marker that contrasts with the negative polarity marker in the first conjunct –as well as the contrasting DPs, PPs etc.- moves above the deletion site, and the FinP is elided. In other words, whatever is inserted in the second conjunct in Repp's theory can be targeted for elision in the PF-deletion theory. The fact that Gapping structures with *but* need to contrast in polarity does not mean that Gapping cannot be derived by PF-ellipsis. The narrow scope readings also show that a phonologically null element can be a remnant in Gapping. So, the semantic content of a remnant is the key factor for it to be a remnant.

I would also like to remark that if contrastive *but* only requires polarity contrast between conjuncts, it would predict that positive polarity can occur in the first conjunct and negative polarity in the second conjunct. However, out of seven subjects only one subject who found ex. 147 grammatical (with proper intonation) found ex. 152 ungrammatical. This issue is independent of Gapping *per se*. The general semantic account of *but* needs to give an account for that:

152. Pete was called by Vanessa but John not by Jessie.



### 9.3. Wide Scope Readings

In these cases, the negation in the first conjunct takes scope over the whole conjunction. Repp notes that for the whole coordination to be true it is sufficient if one of the two conjuncts is false:

153. Wide Scope reading:  $\neg(A \& B)$

Kim DIDN'T play bingo and Sandy sit at home all night. I am sure Sandy went to a club herself. That's what she always does when Kim plays bingo.

(Repp 2005: 197)

The whole coordination acts a single intonational phrase, and the negative marker (and the auxiliary) is stressed (Oehrle 1987, Winkler 2003). Wide scope declarative Gapping structures act as a denial (Repp 2005), and they bear the intonation pattern of denials. Therefore, negation takes scope over the whole utterance, taking scope outside the proposition. In other words, it is not negation at propositional level but at speech act level.

Context is required for the wide scope interpretation of negation. The following is a good example:

154. *Context: Everybody knows that chameleons can move their eyes independently, as picture (1) shows: [picture of chameleon]. But the situation is different for humans, as picture (2) shows [picture of boy trying to imitate a chameleon].*

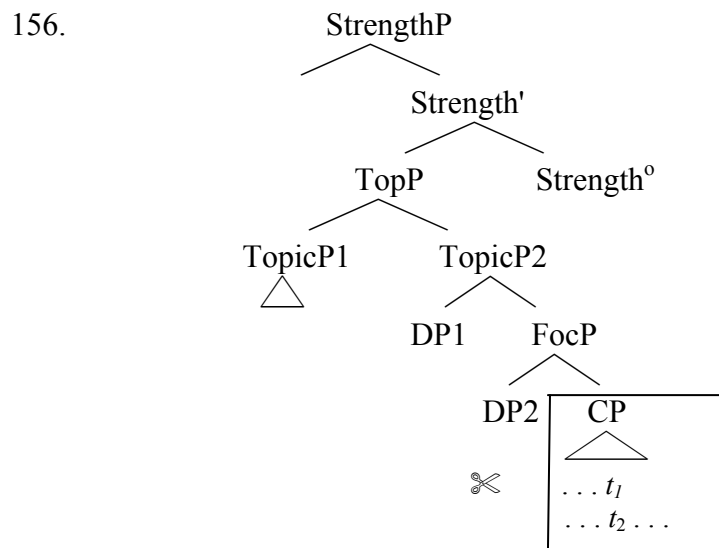
(Winkler 2003: 239f.)

The left eye can't go up and the other down!

Repp assumes that echoic negation –that occurs in denials, replacive negation and outer negation- is in the C-system, namely under the name StrengthP (p. 224):

155. [<sub>ForceP</sub> Force [<sub>StrengthP</sub> Strength [<sub>TopP</sub> Top [<sub>FocP</sub> Foc [<sub>FinP</sub> Fin [<sub>IP</sub> . . . ]]]]]]]

Coordination splits up below StrengthP, so that echoic negation takes scope over the conjunction. The wide scope Gapping structures can also be accounted for in my theory of Gapping: after the extraction of contrasting (new) information –i.e., DPs/PPs- to the left periphery in the second conjunct, the CP is elided:



### 10. (Extreme) Locality of Gapping

One problem with my analysis is that it cannot account for the (extreme) locality of gapping, i.e. the fact that (a) the remnants and their correlates need to be arguments of

and/or adjuncts modifying the clauses that are coordinated, as the following examples show:

157. a. Some have served mussels to Sue and others swordfish. (Johnson (in press): 1)
- b. \*Some have served mussels to Sue and Jen claims that others swordfish.
- c. \*Mike claims that some have served mussels to Sue and Jen claims that others swordfish.
- d. \*She's told me that Peter has eaten his peas, and Sally her green beans, so now we can have dessert. (Johnson (in press): 7)

Example (157a) is grammatical because both remnants and their correlates in the antecedent clause belong to the very clauses that are coordinated. Example (157b) is ungrammatical because the remnants are arguments of a clause embedded in the second conjunct clause whereas their correlates are arguments of the first conjunct clause. Example (157c) is also ungrammatical because neither the remnants nor their correlates are arguments of the clauses coordinated. Finally, example (157d) is ungrammatical because the correlates are arguments of a clause embedded in the first conjunct whereas the remnants are arguments of the second conjunct. The only theory that accounts for the data above is Johnson (1996/2003, in press). Since gapping is a coordination of two *v*Ps, and identical VP ATB-move to Spec, PredP that selects the coordinated *v*Ps as its complement, 157(b-c-d) are ungrammatical since they require that at least one of the coordinates is bigger than *v*P. However, as I have pointed out in previous pages, Johnson's theory also has problems: non-parallel word order, binding and occurrence of

speaker-oriented adverbs. It's also unclear why VP raises to Spec, PredP. He does not give any motivation for that.

The theory of gapping proposed here seems to overgenerate: since remnants move to the left edge of a matrix clause from a complement clause, there should not raise any issue of extreme locality. I suggest that remnants in a complement clause raise to the left periphery of the matrix clause since gapping cannot occur in complement structures. In other words, the non-‘clause-bound’ movement of remnants is a last resort case. One restriction, though, is that this non-local/non-‘clause-bound’ movement is allowed only when the matrix clause is identical to the matrix clause of the first conjunct (ex. (39):

158. Ahmet [Hasan-in pasta-yı yediğini] biliyor Meral-in (de) dondurma-yı.  
 -gen cake-acc ate knows -gen also ice.cream-acc  
 ‘Ahmet knows that Hasan ate the cake and Meral the ice-cream.’

However, when the matrix clauses are not identical, the structure is illicit:

159. \*Ahmet [Hasan-in pasta-yı yediğini] biliyor, Meral-in (de)<sub>1</sub> dondurma-yı<sub>2</sub>  
 -gen cake-acc ate knows -gen also ice.cream-acc  
 Uğur [      <sub>1</sub>       <sub>2</sub> yediğini] biliyor/yalanlıyor.  
 ‘\*Ahmet knows that Hasan ate the cake, and Meral knows/denies that Meral  
 (ate) the ice-cream.’

The data above shows that the functional head, i.e.  $\text{Foc}^0$ , that attracts the remnants instructs PF not to pronounce its complement CP, which has to be identical to the first conjunct. In (158), the matrix clauses are identical (160a), whereas the matrix CP in the second conjunct – $\text{Foc}^0$  instructs PF not to pronounce it- is not identical to the CP in the first conjunct (160b):

160. a. [ $\text{Conjunct1}$  Ahmet . . . biliyor] = [ $\text{Conjunct2}$  Ahmet . . . biliyor]  
 b. [ $\text{Conjunct1}$  Ahmet . . . biliyor]  $\neq$  [ $\text{Conjunct2}$  Uğur . . . biliyor/yalanlıyor]

We also need another condition to explain the English data:

161. The functional head licensing ellipsis,  $\text{Foc}^0$ , needs to be selected by the coordination head.

This would derive (157a), correctly:  $\text{Foc}^0$  is selected by the coordinating head, attracts the remnants, and its complement CP is elided:

162. . . . &<sup>0</sup> [ $\text{FocP}$  DP<sub>1</sub> DP<sub>2</sub> ~~CP . . .~~]

Example (157b & c) are blocked since FocP licensing elision is not selected by the coordination head:

163. \*... &<sup>o</sup> [CP ... V<sup>o</sup> [FocP DP<sub>1</sub> DP<sub>2</sub> [~~CP ...~~]

Example (157d) is blocked because the CP complement of the Foc<sup>o</sup> in the second conjunct is not parallel to the first conjunct but only to a subpart of the first conjunct. The identical parts are shown as CP<sub>α</sub>:

164. [Conjunct1 She's told me [CP<sub>α</sub> that ...] &<sup>o</sup> [Conjunct2 [FocP DP<sub>1</sub> DP<sub>2</sub> [~~CP<sub>α</sub> ...~~]

Compared to Johnson's theory, the theory I am presenting here is much more complicated, but it explains both the extreme locality of gapping and exceptions to it in Turkish.

## 11. Conclusion

In conclusion, Gapping in Turkish is elision of CP. We also have found out that the ContrFoc<sup>o</sup> with the [+E] feature that licenses Gapping does not select deficient domains

as its complement (see Polinsky (2007) for similar properties of sluicing). In Gapping structures where remnants from a complement clause follow the matrix verb, coordination consists of two matrix clauses, and the elision site is the matrix domain of the second conjunct. An agenda for future research is to develop a formal account of why defective domains cannot be selected by a  $\text{ContrFoc}^0$  with [+E] feature licensing Gapping. We also have seen that Johnson's theory cannot account for the properties of gapping in Turkish such as 'Object + Subject' order in the second conjunct and occurrence of speaker-oriented adverbs. With respect to the interaction between gapping and negation, we have pointed out a couple of problems with Repp's analysis and that the gapping and negation interaction can be accounted for in a PF-deletion theory: the obligatory occurrence of *nicht* 'not' in the second conjunct in distributed scope readings in German can be a consequence of elision not targeting a NegP but a lower chunk in gapping.

## CHAPTER 5: ON RIGHT NODE RAISING

### *1. Introduction*

The aim of this chapter is to offer evidence from Right Node Raising structures in Turkish for **Right Node Raising (RNR) as PF-deletion** (Wexler and Culicover 1980; Levine 1985, 2001; Kayne 1994; An 2007) rather than **RNR as ATB movement** (Ross 1967; Bresnan 1974; Hankamer 1971; Hudson 1976; Sabbagh 2007) or **RNR as Multiple Dominance** (Phillips 1996; Wilder 1999, 2008).



## 2. Right Node Raising Data

Crucial data will be RNR structures where the shared element is a verb –known as **backward Gapping** (Hankamer 1971)- as well as an argumental DP. An example of RNR where the shared element is a verb is in (1) (Hankamer 1971; Kornfilt 2000), and where the shared element is DO is in (2):

1. [[Hasan karides-i \_\_\_ ], [Mehmet te istiridye-yi yedi]]  
Hasan shrimp-ACC Mehmet also oyster-ACC ate  
'Hasan (ate) the shrimp, and Mehmet ate the oyster.'
2. Mehmet \_\_\_<sub>1</sub> pişirdi , Hasan da \_\_\_<sub>1</sub> yedi , elma-yı.  
cooked also ate apple-ACC  
'Mehmet cooked and Hasan ate, the apple.'

In (1), the verb *yedi* 'ate' is the verb of both clauses. However, it is pronounced in sentence/ conjunction-final position. In (2), the shared element is the DO of both conjuncts, and it is pronounced in sentence/conjunction-final position.

## 3. Differences between 'Backward Gapping' and 'Forward Gapping'



- a. SO & SOV                      b.OS & OSV  
 c. \*SO & OSV                     d. \*OS & SOV

6. a. Adam kitabı , çocuk da dergiyi okudu. (SO & SOV)  
       man book-ACC child CONJ mag.-ACC read-PAST  
       ‘the man read the book, and the child, the magazine.’  
 b. Kitabı adam , dergiyi de çocuk okudu. (OS & OSV)  
       book-ACC man mag.-ACC CONJ child read-PAST  
       ‘the man read the book, and the child, the magazine.’  
 c. \*Adam kitabı , dergiyi de çocuk okudu. (\*SO & OSV)  
       man book-ACC mag.-ACC CONJ child read-PAST  
 d. \*Kitabı adam , çocuk da dergiyi okudu. (\*OS & SOV)  
       book-ACC man child CONJ mag.-ACC read-PAST

7. a. SOV & SO                    b. OSV & OS  
       c. SOV & OS                    d. OSV & SO

8. a. Adam kitabı okudu , çocuk da dergiyi. (SOV & SO)  
       man book-ACC read-PAST child CONJ mag.-ACC  
       ‘the man read the book, and the child, the magazine.’  
 b. Kitabı adam okudu , dergiyi de çocuk. (OSV & OS)  
       book-ACC man read-PAST mag.-ACC CONJ child  
 c. Adam kitabı okudu , dergiyi de çocuk. (SOV & OS)  
       man book-ACC read-PAST mag.-ACC CONJ child  
 d. Kitabı adam okudu , çocuk da dergiyi. (OSV & SO)  
       book-ACC man read-PAST child CONJ mag.-ACC

If both forward and backward Gapping had the same derivation, one would not expect the word order parallelism requirement in backward Gapping. So, I follow Hankamer (1971) and assume that backward Gapping structures are Right Node Raising structures.

#### 4. Analyses Of RNR

Analyses of RNR structures can be grouped into two classes:

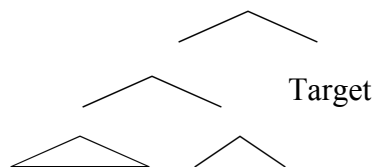
9. In-Situ analyses: Shared Element(s) Inside Both Conjuncts
  - a. PF-deletion (Wexler and Culicover 1980; Levine 1985, 2001; Kayne 1994; Wilder 1997; Hartmann 2000)
  - b. Multiple Dominance (Wilder 1998, 2008; Abels 2004)

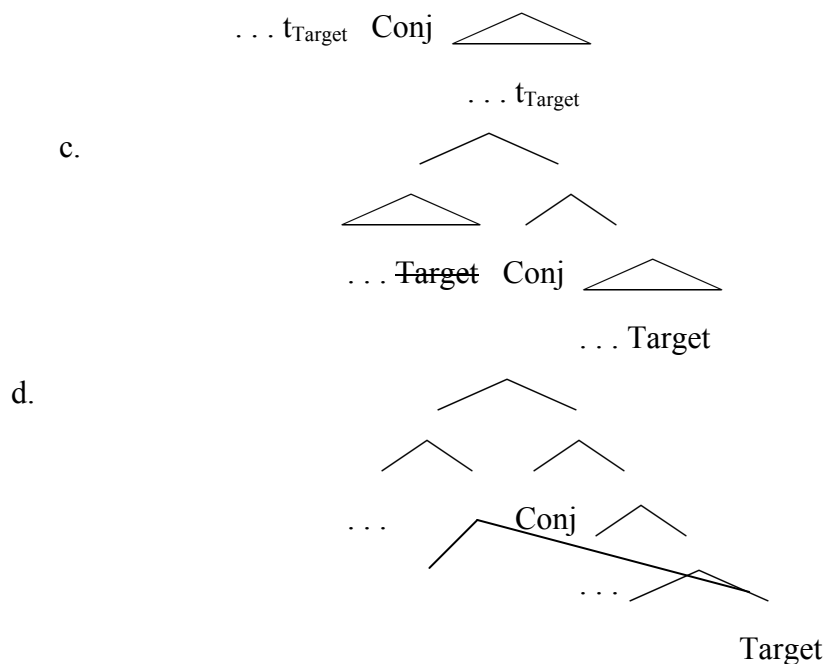
Ex-Situ analyses: Shared Element(s) Outside Both Conjuncts Across-the-Board Movement (Ross 1967; Bresnan 1974; Hudson 1976; Postal 1974, 1998; Hankamer 1971; Sabbagh 2007)

Under RNR as ATB movement, an element is ATB-moved rightward (10b); under RNR as ellipsis, the leftmost one of two identical elements is elided (10c) (10b-c taken from Abels 2004); and under RNR as Multiple Dominance, there is one occurrence of an element shared by both verbs (10d):

10. a. John bought and Mary broke an expensive Chinese vase.

b.





5. Arguments against RNR as ‘ATB-Movement’ and ‘Multiple Dominance’ but for ‘PF-deletion’ from Turkish

In this section, I will give nine arguments against the ‘ATB-movement’ and ‘Multiple Dominance’ analyses from RNR structures in English, Japanese, Korean and Turkish and show that all the data in these arguments can be accounted for by the PF-deletion analysis. The first three arguments are original to this study, whereas the next four arguments were introduced in An, and the last one was introduced in Abels (2005).

5.1. New Arguments

5.1.1 Agreement Properties

The shared verb shows agreement only with the subject of the second conjunct in Turkish RNR structures:

11. Sen elma-yı , ben armud-u ye-di-**m**/n\*/\*k.  
 you apple-ACC I pear-ACC eat-PST-1S/\*2S/\*1P  
 ‘You (ate) the apple, and I ate the pear.’

The pronounced copy of *ye-* ‘eat’ in the first conjunct would bear second person singular agreement, while the verb in the second conjunct would bear first person singular agreement:<sup>92</sup>

12. Sen elma-yı ye-di-**n** , ben armud-u ye-di-**m**.  
 you apple-ACC eat-PST-2S I pear-ACC eat-PST-1S  
 ‘You ate the apple, and I ate the pear.’

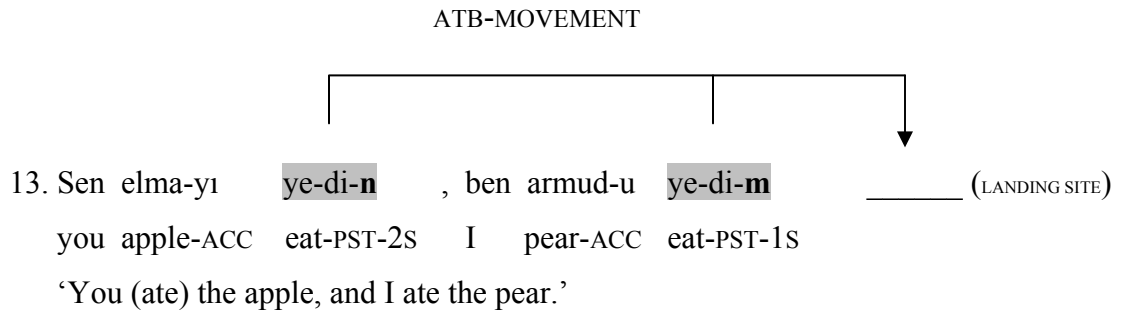
Under ATB-movement analysis, since both of the verbs move, it is not clear why only the verb that shows agreement with the second subject is pronounced although both verbs are

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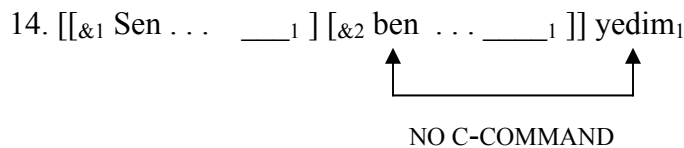
<sup>92</sup>The fact that the verbs in the first and second conjuncts are not identical w.r.t agreement shows that there is not a strict identity requirement. However, both verbs need to be identical in Tense/Aspect/Modality morphology:

- (i) Ali çikolatayı \*(yi-yor) / ~~ye-di~~, ben elma-yı ye-di-m.  
 chocolate eat-PROG ate I apple eat-PAST-1S
- (ii) Ali çikolatayı \*(ye-meli) / ye-sin , ben elma-yı y-iye-yim.  
 chocolate eat-NECESSITY eat-OPT2S I apple eat-OPTATIVE-1S

ATB-moved. There would be nothing to block pronunciation of the copy of the verb from the first conjunct under RNR as ATB movement.



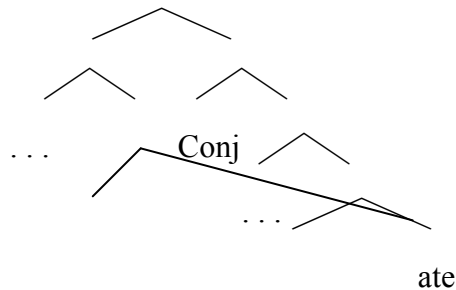
One cannot argue that the verb agrees with the subject of the second conjunct after it ATB-moves because there would be no c-command relation between the subject of the second conjunct and the verb since the verb is outside the domain of the second conjunct (10b-14). So, neither Spec-Head agreement nor the AGREE (Chomsky 2000, 2001) operation would work to explain the relevant agreement fact:



Similarly, under Multiple Dominance analysis, since the verb is shared by both clauses, it is not clear why it shows only agreement with the second clausal conjunct. Since locality or linear precedence does not matter in this model, the verb could agree with the subject of the first conjunct as well as it could with the subject of the second conjunct. Howard

Lasnik remarks that it might even be expected that a good sentence could not even be derived unless the verbs are identical:

15.



The fact that a RNR-ed verb shows agreement only with the subject of the second conjunct is predicted by RNR as Ellipsis. Since the rightmost identical element must be pronounced in RNR structures, the verb in the second conjunct/clause is pronounced, naturally bearing its local agreement properties:

16. Sen elma-yı ~~ye-di-n~~ , ben armud-u ye-di-m.  
 you apple-ACC ate-PST-2S I pear-ACC eat-PST-1S  
 ‘You (ate) the apple, and I ate the pear.’

In a case where more than two clauses are conjoined, it is again the rightmost verb that is pronounced –which shows agreement with the subject of the rightmost conjunct:

17. Sen elma-yı ~~ye-di-n~~ , ben armud-u ~~ye-di-m~~, Tolga üzüm-ü  
 you apple-ACC eat-PST-2S I pear-ACC eat-PST-1S grape-ACC  
 ye-di-Ø/\*n/\*m.  
 eat-PST-3S/2S/1S



‘You (ate) the apple, I (ate) the pear, and Tolga ate the grape.’

*Honorification in Korean*

An (2007) also gives a similar argument against the Multiple Dominance analysis –and against the ATB analysis as well- and for the PF-deletion analysis based on ‘subject honorification’ in Korean. In Korean, the verb optionally bears an honorification morpheme when the subject (but not object (18b)) is socially superior to the speaker (but not a possessor in the subject (18c)):

18. a. Kyoswunim-un chayk-ul sa-(**si**)-ess-ta  
professor-top book-acc buy-hon-past-dec  
‘Professor bought a book’
- b. Lydia-nun kyoswunim-ul manna-(**\*si**)-ess-ta  
L-top professor-acc meet-hon-past-dec  
‘Lydia met the professor.’
- c. kyoswunim-uy kay-ka cicu-(**\*si**)-ess-ta  
professor-gen dog-nom bark-hon-past-dec  
‘Professor’s dog barked.’

(ibid., p. 118)

Interestingly, in RNR structures when only the subject of the second conjunct is socially superior to the speaker, the shared verb bears an honorific marker (19a), and when only the subject of the first conjunct is superior to the speaker the shared verb cannot bear the honorific marker (19b) (Professor > speaker ≥ Tomo), which gives us the generalization in (20):

19. a. Tomo-nun bap-ul, kuliko kyoswunim-un ppang-ul, **Nina-ekey**

T-top rice-acc and professor-top bread-acc N-dat

**cwu-si-ess-ta**

give-hon-past-dec

‘Tomo (gave) rice (to Nina) and Professor gave bread to Nina.’

b. \* kyoswunim-un ppang-ul, kuliko Tomo-nun bap-ul,

professor-top bread-acc and T-top rice

**Nina-ekey cwu-si-ess-ta**

N-dat give-hon-past-dec

(ibid., p. 119-120)

20. In RNR constructions, honorification marking in the target can only be licensed by the subject of the final conjunct. (p. 121)

An concludes that it is very hard to describe this generalization under the MD analysis because the verb is literally shared by both conjuncts. Again, the PF-ellipsis analysis can account for this dichotomy with respect to honorification. When the socially superior subject is in the second subject, the honorification marker is pronounced because the verb pronounced is that of the second conjunct in (19a), and when the socially superior subject is in the first conjunct, the honorific marker is not pronounced because the verb of the first conjunct that bears it is deleted (19b):

21. Tomo-nun bap-ul ~~Nina-ekey cwu-ess-ta~~ kuliko

T-top rice-acc N-dat give-past-dec and

Kyoswunim-un ppang-ul **Nina-ekey cwu-si-ess-ta**

professor-top bread-acc N-dat give-hon-past-dec

(p. 124)

## 51.2 Head-adjunction to a phrase

The shared element in RNR structures can be a head, but it is not clear how a head could adjoin to a phrase (Chomsky 1986) under ATB analyses:

22. [<sub>&P</sub> [[<sub>&1</sub> . . . \_\_\_\_<sub>1</sub>] [<sub>&2</sub> . . . \_\_\_\_<sub>1</sub> ]] V<sup>o</sup><sub>1</sub>] HEAD-ADJUNCTION TO A PHRASE

In the following lines, we will see contexts where a shared element can be a head but not a phrase, which would not be expected under the ATB-analysis.

On the other hand, under the PF-deletion analysis, since the verbal head in the second conjunct is pronounced in its canonical position, it does not need to adjoin to any phrase. Therefore, a head can be “shared” in a coordinate structure as long as it is the rightmost element in the conjunction, as will be described in the Right Edge Generalization in the next subsection.

## 5.1.3 Adjunction to complement clauses

A verb can be shared in complement clauses in Turkish (23). Under ATB movement analysis, this would mean that the verb adjoins to the embedded conjunction. However, rightward adjunction to complement clauses is ungrammatical (24):

23. Zeynep [[[Hasan-in karides-i , Mehmed-in de istiridye-yi  
Zeynep Hasan-GEN shrimp-ACC Mehmet-GEN also oyster-ACC

**yediđini]** duydu

ate heard

'Zeynep heard that Hasan (ate) the shrimp, and Mehmet ate the oyster.'

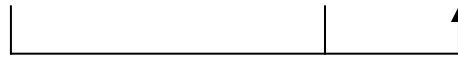
24. \*Ahmet [[Ali-nin  $t_1$  öptüğünü ] **Ayşe-yi<sub>1</sub>**] biliyor.

-GEN kissed -ACC knows

'Ahmet knows that Ali kissed Ayşe.'

If RNR were ATB movement, example (23) would be bad since complement clauses do not allow rightward adjunction and since head-adjunction to a phrase is technically impossible:

25. Zeynep [<sub>&P</sub>[[Hasan-in . . . . \_\_\_\_<sub>1</sub>] [Mehmed-in . . . \_\_\_\_<sub>1</sub> ]] **yediđini<sub>1</sub>**]biliyor



ADJUNCTION NOT LICENSED

One could not argue that ATB can license rightward adjunction to complement clauses. This would predict that a DO could be shared in complement clauses as well. However, a DO cannot be shared in complement clauses:

26. \**pro* [[[Mehmet-in \_\_\_\_<sub>1</sub> pişirdiđini], [Hasan-in da \_\_\_\_<sub>1</sub> ye-diđini]]

-GEN cooked -GEN also ate

**elma-yi<sub>1</sub>**] biliyorum.

apple-ACC I.know

'I know that Mehmet cooked and Hasan ate, the apple.'

27. \*... [&P [&P ... \_\_\_\_<sub>1</sub> ... \_\_\_\_<sub>1</sub> ... ] **DO**<sub>1</sub>] V<sup>o</sup><sub>matrix</sub>

However, RNR of a DO is grammatical in matrix clauses:

28. Mehmet \_\_\_\_<sub>1</sub> pişirdi, Hasan da \_\_\_\_<sub>1</sub> ye-di, **elma-yı**.  
 cooked also ate apple-ACC

‘Mehmet cooked and Hasan ate, the apple.’

In (28), it is not the case that there is a null pronoun *pro* in the first conjunct co-indexed with the DO of the second conjunct because *pro* in the first conjunct would also be licensed when the DO in the second conjunct is in its **canonical** position:

29. \*Mehmet *pro*<sub>1</sub> pişirdi , Hasan da elma-y<sub>1</sub> yedi.  
 cooked also apple-ACC ate

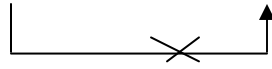
‘Mehmet cooked and Hasan ate the apple.’

Example (26) would not be problematic for a Multiple Dominance analysis: if an element is shared from its canonical position, (26) could be accounted for in terms of the ‘ban against rightward-adjunction to complement clauses’, which would mean that movement obligatorily follows after an element is ‘multiply shared’:

MULTIPLE DOMINANCE

DOMAIN

30. . . . [&P [&P . . .       <sub>3</sub> . . . V<sub>1</sub> . . . V<sub>2</sub>] DP<sub>3</sub>] . . . V<sup>0</sup><sub>matrix</sub>



The *PF-deletion* analysis needs to account for, on the one hand, grammaticality of RNR of verbal heads in complement clauses and, on the other hand, ungrammaticality of RNR of DOs in complement clauses (ex. 23&26 repeated as ex. 31&32, respectively).<sup>93</sup>

31. Zeynep [[[Hasan-ın karides-i , Mehmed-in de istiridye-yi  
Zeynep Hasan-GEN shrimp-ACC Mehmet-GEN also oyster-ACC  
**yediğini**] duydu  
ate heard  
'Zeynep heard that Hasan (ate) the shrimp, and Mehmet ate the oyster.'

32. \**pro* [[[Mehmet-in \_\_\_\_<sub>1</sub> pişirdiğini], [Hasan-ın da \_\_\_\_<sub>1</sub> ye-diğini]]  
-GEN cooked -GEN also ate  
**elma-yı<sub>1</sub>**] biliyorum.  
apple-ACC know  
'I know that Mehmet cooked and Hasan ate, the apple.'

<sup>93</sup> Aslı Göksel (p.c.) notes that when the embedded verb is stressed and the shared DO is distressed in ex.

(30), the structure is grammatical:

i. . . . **YEDIĞİNİ elmayı** . . .

To explain this dichotomy, I will propose the following generalization:

33. *Right Edge Generalization* (REG) [to be revised]

In the configuration

[[A...X...] Conj. [B...X...]]

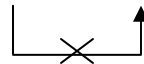
X must be rightmost element in the conjunct B or the whole structure – including &P- before X can be deleted in A.

For PF-deletion to occur in RNR structures, REG first needs to hold in Turkish, which requires, when necessary, that the shared element in the second conjunct needs to move to either the right edge of the second conjunct or the whole sentence that also includes the &P. This explains the grammaticality of ex. (31). Since the verb in the second conjunct is already the rightmost element in its canonical position, REG holds, without requiring any further movement. In this case the identical verb in the first conjunct is elided:

34. . . . [ &P [ C1 . . . V<sub>+</sub> ] [ &' [ C2 . . . V<sub>1</sub> ] ] ] V<sub>matrix</sub> *REG holds*

In (32), however, REG does not hold with the shared DO in its canonical position inside the second conjunct. First, the canonical position of the DO *elmayı* ‘the apple’ is not the rightmost position in the second conjunct; furthermore, it cannot move to the right edge of the second conjunct because rightward adjunction to complement clauses is not allowed in Turkish independently, as ex. (36) shows:

35. . . . [ &P [ C1 . . . ~~DO~~ V<sup>0</sup> ] [ &' [ C2 . . . . \_\_\_\_<sub>1</sub> V<sup>0</sup> DO<sub>1</sub> ] ] ] ] V<sup>0</sup><sub>matrix</sub>



36. \*Ahmet [Ali-nin  $t_1$  öptüğünü Ayşe-yi<sub>1</sub>] bil-iyor.  
 -GEN kissed -ACC knows  
 ‘Ahmet knows that Ali kissed Ayşe.’

So, PF-deletion and REG explains the dichotomy between RNR of verbs and DO’s in complement clauses in Turkish. DO’s cannot be shared in complement clauses because they cannot move to the right edge of the second conjunct.

## 5.2. Previous Arguments

### 5.2.1 Multiple Traces

An (2007: 108) points out that the following data from Korean and Japanese is problematic for the Multiple-Dominance analysis, where the embedded object (in bold characters) is scrambled out of the embedded clause in each conjunct in a parallel way before RNR is applied and then the embedded verb with the trace of the scrambled object is RNRed along with the matrix verb:

37. **Ppang<sub>i</sub>-ul** Tomo-nun, kuliko **bap<sub>j</sub>-ul** Nina-nun, (K)  
 bread-acc T-top and rice-acc N-top  
**Ana-ka** t **mekess-tako malha-ess-ta**  
 A-nom ate-comp say-past-dec  
 ‘Bread, Tomo (said that Ana ate) t and rice, Nina said that Ana ate t.’

38. **Pan<sub>i</sub>-o** Tomo-wa, (sosite) **gohan<sub>j</sub>-o** Nina-wa,  
 bread-acc T-top and rice-acc N-top



**Ana-ga t tabeta-to it-ta**

A-nom ate-comp say-past.dec

‘Bread, Tomo (said that Ana ate) t and rice, Nina said that Ana ate t.’

This holds in Turkish as well:

39. **Ekme-ği**, Uğur , **pilav-ı** Ecem, Ibrahim-in

bread-acc rice-acc -gen

**t yediğini söyledi.**

ate said

‘The bread, Uğur (said that Ibrahim ate), and the rice, Ecem said that Ibrahim ate.’

An points out that there are two distinct elements associated with a single position inside the RNRed embedded clause. Under the Multiple-Dominance analysis, this would be a problem because there is only one occurrence of the shared chunk and it could not license two separate DPs (i.e. *bread* and *rice*) with respect to theta-role and Case.

However, this data is not a problem for the PF-deletion analysis because there are two occurrences of the shared material, one per conjunct. In that way, the scrambled objects can be licensed. This can be shown below. Each embedded verb takes one scrambled object as its complement:

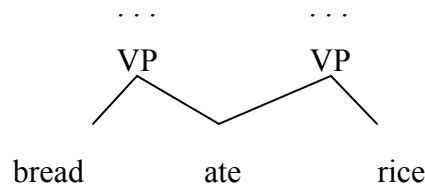
40. DP<sub>1</sub> [subject<sup>matrix</sup> subject<sup>embedded</sup>  $t_1$  *verb*<sup>embedded</sup> *verb*<sup>matrix</sup> -]

&

DP<sub>2</sub> [subject<sup>matrix</sup> subject<sup>embedded</sup>  $t_2$  *verb*<sup>embedded</sup> *verb*<sup>matrix</sup> ]

An notes that as a solution to the puzzle in (40) a V could be multiply-shared by the direct objects (40) and that however that would overgenerate cases where a verb is shared by two object in single clause (41):

41.



\* Bread, Ana ate rice.

Another interesting point the data above (i.e. 37-38-39) shows is that shared material in RNR can belong to different clauses (cross-clausal material). The *t* ('trace' of the scrambled object) and *ate* belong to the complement clause, whereas *said* belongs to the matrix clause. Therefore, remnants of the ellipsis are cross-clausal material: (i) matrix subject, and (ii) embedded subject and object. As (will be) seen in the chapters on Sluicing, forward Gapping and Fragments, remnants cannot be cross-clausal. This clearly shows that RNR does not take clause boundaries into consideration (see also An 2007, chapter 4), on which I will elaborate more in the following pages.

### 5.2.2 Multiple Binders

Another problem with the Multiple-Dominance analysis that An (2007) points out refers to cases where a pronominal element in the shared material is bound by multiple elements outside the shared material. An notices that this is a problem for Multiple-Dominance analyses because the pronoun stays in-situ:

42. Jeff<sub>i</sub>-nun Nina-ekey, kuliko Tomo<sub>j</sub>-nun Zhanna-ekey, (K)  
 J-top N-dat and T-top Z-dat  
**ku<sub>i</sub>-uy/caki<sub>i</sub>-uy cha-rul pillye cwu-ess-ta**  
 he-gen/self-gen car-acc lend-past-dec  
 ‘Jeff (lent his car) to Nina and Tomo lent his car to Zhanna.’

43. Jeff<sub>i</sub>-wa Nina-ni, (sosite) Tomo<sub>j</sub>-wa Zhanna-ni, (J)  
 J-top N-dat and T-top Z-dat  
**kare<sub>i</sub>-no/zibun<sub>i</sub>-no kuruma-o kasi-ta**  
 he-gen/self-gen car-acc lend-past.dec  
 ‘Jeff (lent his car) to Nina and Tomo lent his car to Zhanna.’

(An 2007: 113-4)

We know that with pronominal possessors we get ambiguity even though the binders are not clausemate (44-45): a proper case would be to put the pronominal possessor within the object in a complement clause. Due to pragmatic reasons, we need to change the verb *lend* because normally one lends his own car. Notice that we cannot use an overt pronoun:<sup>94</sup>

44. John said that Brian drove his/self’s car.

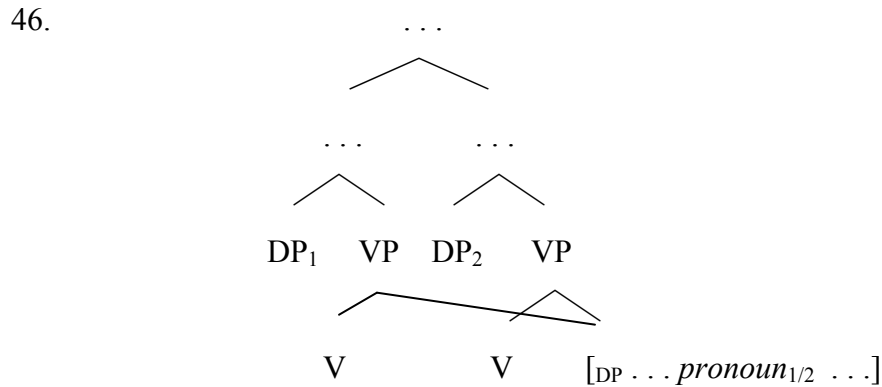
45. Ahmet<sub>1</sub> [ Tolga-nın<sub>2</sub> [*pro*<sub>1/2</sub> araba-sın]-<sub>1</sub> sürdüğünü söyledi.

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<sup>94</sup> The non-occurrence of an overt pronoun could be a consequence of Chomsky’s the *Avoid Pronoun Principle*, which is ‘interpreted as imposing a choice of PRO [*pro*, A.I.] over an overt pronoun where possible (Chomsky 1981: 65)

-gen                      car-poss3s-acc    drove            said  
 ‘Ahmet<sub>1</sub> said that Tolga<sub>2</sub> drove his<sub>1/2</sub> car.’

Example (45) shows that a null pronoun can be bound by two separate DPs that c-command it, without any movement. In other words, it is ambiguous, but it is not bound by both DPs simultaneously. A MD-version would give us that ambiguity, but not multiple binding, i.e. where a pronominal is bound by two binders simultaneously:



Note that in the same configuration as (42 & 43), the null pronoun and the reflexive can be bound by both subjects in Turkish:

47. Uğur<sub>1</sub> Tolga-ya, Ibrahim<sub>2</sub> Kaan-a, *pro*<sub>1/2</sub>/*kendi*<sub>1/2</sub> araba-sın-ı      ödünç verdi.  
       -dat                      -dat                      self      car-poss3s-acc    lent  
 ‘Uğur (lent his car) to Tolga and Ibrahim lent his car to Kaan.’

Also, a reflexive possessor can be bound by two local DPs in Turkish:

48. Uğur<sub>1</sub> Tolga-ya<sub>2</sub> [kendi<sub>1/2</sub> araba-sın]-<sub>1</sub> ödünç verdi.

-dat self car-poss3s-acc lent

‘Uğur<sub>1</sub> gave Tolga<sub>2</sub> his<sub>1/2</sub> own car.’

Although ex. (48) is ambiguous, it’s not the case that the reflexive gets bound by both DPs simultaneously. According to An, this set of data can easily be accounted for by the RNR as PF-ellipsis account since there are two occurrences of a pronominal in RNR, each of which gets bound by a separate DP, and only one of which is pronounced:

49. Uğur<sub>1</sub> Tolga-ya ~~pro<sub>1</sub>/kendi<sub>1</sub> araba-sın-ı~~ ödünç verdi, İbrahim<sub>2</sub> Kaan-a,

-dat self car-poss3s-acc lent -dat

~~pro<sub>2</sub>/kendi<sub>2</sub> araba-sın-ı~~ ödünç verdi.

self car-poss3s-acc lent

‘Uğur (lent his car) to Tolga and İbrahim lent his car to Kaan.’

### 5.2.3 Control

In control cases, as An observes, a PRO subject in the shared material is controlled by the subject in each conjunct. Again, under the MD analysis, this would be problematic since there would occur one PRO controlled by two DPs. Under the movement theory of control (Hornstein 2001), it would require that two different DPs move from the same position, which is illicit:

50. Nina<sub>i</sub>-nun Ana-ekey, kuliko Zhanna<sub>j</sub>-nun Oksana-ekey, (K)

N-top A-dat and Z-top O-dat

**PRO<sub>i/j</sub> ilchik tolaokayss-tako yaksokha-ess-ta**  
 early return-comp promise-past-dec

‘Nina (promised) Ana (to come back early) and Zhanna promised Oksana to come back early.’

51. Nina<sub>i</sub>-wa Ana-ni, (sosite) Zhanna<sub>j</sub>-wa Oksana-ni, (J)  
 N-top A-dat and Z-top O-dat

**PRO<sub>i/j</sub> hayaku kaeru-to yakusokusi-ta**  
 early return-comp promise-past.dec

‘Nina (promised) Ana (to come back early) and Zhanna promised Oksana to come back early.’

(An 2007: 115-6)

A structure similar to (50 & 51) is illicit in Turkish as well, though I will use a different verb. Further, to show that PRO is elided within the elision site, I will embed the control structure in a complement clause:

52. Ahmet<sub>1</sub> Ali-yi, Attila<sub>2</sub> Mustafa-y<sub>1</sub>, **PRO<sub>1/2</sub> ara-mak istediğini söyledi.**  
 -acc -acc to.call wanted said

‘Ahmet (said that he wanted to call) Ali and Attila said that he wanted to call Mustafa.’

Again, the PF-ellipsis analysis provides a straightforward account, by providing a separate controllee per controller:

53. Ahmet<sub>1</sub> Ali-yi ~~PRO<sub>1</sub> ara-mak istediğini söyledi,~~ Attila<sub>2</sub> Mustafa-y<sub>1</sub>, **PRO<sub>1/2</sub>**  
 -acc to.call wanted said -acc

**ara-mak istediğini söyledi.**

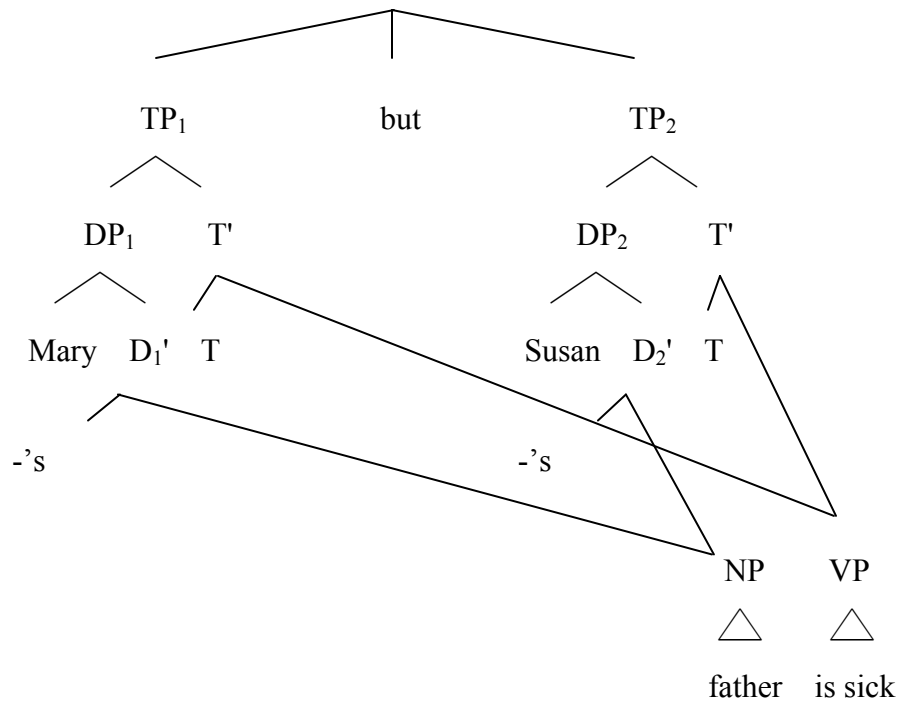
to.call    wanted    said

‘Ahmet (said that he wanted to call) Ali and Attila said that he wanted to call Mustafa.’

### 5.2.4 Linearization

According to An, another problem with the MD analysis is cases where ‘a proper subpart of a left-branch element is multi-dominated along with a right branch element’ (p. 128):

54. (?) I think Mary’s, but he thinks Susan’s, *father is sick*



(An 2007: 128-9)

An points out that the shared NP does not c-command out of the DPs dominating it, crucially it cannot c-command T', and being multi-dominated it is not contained in the image of DP<sub>1</sub> or DP<sub>2</sub> and concludes that thus there is no way to determine the linear order of the (element contained in) NP with respect to the elements contained in T'.

However, this RNR structure can be derived under the PF-ellipsis analysis without any problem of linearization:<sup>95, 96</sup>

55. I think Mary's ~~father is sick~~ but he thinks Susan's *father is sick*

(ibid., p. 129)

#### 5.2.5 Leftward ATB movement vs. RNR

Abels (2003: 49) notes that VP-ellipsis can occur in leftward ATB movement structures:

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<sup>95</sup> One final problem with the MD analysis that An points out is an example such as:

- i. \*The girl who hates said that Mary likes Tom.

where *Tom* is shared by *hates* and *likes*. Although the structure conforms to all the requirements of the MD analysis, it is illicit (see An (2007) for technical details). So, An concludes, additional assumptions are required to account for the ungrammaticality of examples like (i) in the MD analysis.

<sup>96</sup> Howard Lasnik (p.c.) raises the question why deletion cannot be forward in (55). When that happens, the shared material *father is sick* cannot form an I-phrase separate from the coordination because it is embedded in the coordination structure.



56. ? Who did you say that John had visited long ago but that Mary hadn't until yesterday?

Under the ATB-movement analysis, VP-ellipsis would be expected to occur in RNR as well. However, that is not the case (57c & 58c):

57. a. Jane talked about, but Frank didn't talk about, *the achievements of the syntax students*

b. Jane talked about the achievements of the syntax students but Frank didn't

c. \* Jane talked about, but Frank didn't, *the achievements of the syntax students*

(Abels 2003: 50)

58. a. Jane discussed, but Frank didn't discuss, the achievements of the students

b. Jane discussed the achievements of the students but Frank didn't

c. ?\* Jane discussed, but Frank didn't, the achievements of the students

(An 2007: 97)

Examples 57a&58a and 57b&58b illustrate RNR and VP-ellipsis, respectively. Examples 57c&58c illustrate RNR + VP-ellipsis, which is ungrammatical. Abels notes it is not clear why RNR + VP-ellipsis is illicit under RNR as ATB movement analysis.

### 5.3. Interim conclusion

In conclusion, the RNR data from Turkish (as well as Japanese, Korean and English) is problematic for both *ATB-movement* and *Multiple Dominance* analyses of RNR. Neither of these analyses can account for the specific properties of RNR in Turkish (and other

languages) introduced above. In contrast, the PF-deletion analysis can account for all the properties of RNR structures in Turkish.

### 6. On the Status of the Shared Material

Nespor & Vogel (1986: 188) point out that extraposed elements obligatorily constitute separate I(ntonation)-phrases (see also Zec & Inkelas (1990)). Also, extraposed elements are preceded by a pause. An (2007) points out that RNRed elements have to form separate prosodic constituents.<sup>97</sup>

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<sup>97</sup> A good argument for prosodic constituency/phrasing is the *Raddoppiamento Sintattico* (RS) in Tuscan Italian (Nespor and Vogel 1986: 33). This rule refers to the phenomenon whereby the initial consonant of a word is lengthened if the preceding word ends in an accented vowel:

- i. La scimmia aveva appena mangiato metà [b:]anana.  
the monkey had just eaten half banana  
'The monkey had just eaten a half banana.'
- ii. Il gorilla aveva appena mangiato quáttro [b]anane  
the gorilla had just eaten four bananas  
'The gorilla had just eaten four bananas.'

However, RS cannot occur between any two words, although segmental conditions are met (iv):

- iii. Ho visto tré [k:]olibrí [b:]rutti.  
(I).have seen three hummingbirds ugly
- iv. Ho visto tré [k:]olibrí [k]osí [b:]rutti.

59. a. \* John wrote an interesting, and Elvira wrote a brilliant, thesis on nightingales  
 (Swingle 1993)

b. ? John wrote a mildly *INTERESTING*, but Elvira wrote a truly *BRILLIANT*,  
 thesis on nightingales  
 (McCawley 1988)

60. a. (?) John said *SIX*, but Mary said *FIVE*, cars from Europe were stolen

b. (?) I think *MARY*'s, but she thinks *SUSAN*'s, father is sick  
 (An 2007: 48)

(I).have seen three hummingbirds such ugly

'I have seen three so ugly hummingbirds.'

In (iv), the first consonant /k/ of *kosí* is not lengthened although the final sound of the preceding word is an accented vowel. Since the head noun and the modifier are identical in (iii) and (iv), the reason for non-lengthening cannot be syntactic configuration. On the contrary, it is a matter prosodic phrasing. In (iii), *[k:]olibrí [b:]rutti* forms a single prosodic phrase, whereas in (iv) *[k:]olibrí* and *[b:]rutti* belong to different prosodic phrases:

v. a. ( ) $\phi$

Ho visto tré [k:]olibrí [b:]rutti.

b. ( ) $\phi$  ( ) $\phi$

Ho visto tré [k:]olibrí [k]osí [b:]rutti.

Since [b:]rutti neither carries pitch accent nor (syntactically) branches, it cannot form its own prosodic phrase.

Swingle (1993) suggests that in (59b) the contrastive stress on the italicized elements has the effect of prosodically severing the DP, allowing the shared portion to stand on its own as a separate I-phrase. This effect of ‘severing’ occurs at phonological level.<sup>98</sup> However, this does not mean that the shared element has to move in Narrow Syntax as in the ATB-analysis, which supports the following quotation from Zec & Inkelas (1990: 378):

‘Certain phenomena which belong to the borderline of syntax cannot be characterized in purely syntactic terms . . . At least part of the burden needs to be shifted to phonology, and this characterization crucially depends on prosodic units.’

Bošković & Lasnik (2003) assume that a RNRed clause is parsed as a separate intonational phrase and that intonational phrase boundaries block affixation, to explain the ungrammaticality of (61):

61. \* They suspected, and we believed, [ $\emptyset_c$  Peter got a job]

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<sup>98</sup> Not every case of contrastive stress assignment has this effect, of course. H. Lasnik (p.c.) notices that in the following example the object NPs are not severed. So, it seems that the severing effect of contrastive stress is structure-specific in that it occurs only in RNR, to my knowledge:

- i. I LIKE books but you HATE books.

An (2007) also claims that the shared element must constitute a separate I-phrase. Then, the rest of the sentence is also an I-phrase. At the level of I-phrases, an RNR has a tripartite constituent structure, where the first conjunct, the second conjunct and the shared material form separate I-phrases (Swingle 1993).

62. [<sub>IP</sub> first conjunct ] [<sub>IP</sub> and second conjunct ] [<sub>IP</sub> target ]      (<sub>IP</sub> = I-phrase )  
 (An 2007: 171)

As evidence for prosodic constituency, An gives an ambiguous sentence from Korean (70) where an adverb can modify either the matrix event or the embedded event, pointing out that the sentence can be disambiguated by prosody:

63. *Mary-nun wusumyense cilmwunha-nun haksayng-ul ttayri-ess-ta.*  
 M-top      with.a.smile   ask.a.question-rel student-acc   hit-past-dec  
 a. High reading  
 ‘With a smile on her face, Mary hit the student who was asking a question.’  
 b. Low reading  
 ‘Mary hit the student who was asking a question with a smile on his face’  
 (ibid., p. 172)

If the adjunct *wusumyense* ‘with a smile’ is parsed into the same I-phrase as with the subject *Mary-nun*, it gets a high reading; if it is parsed into the same I-phrase with the object *haksayng-ul*, it gets a low reading (# indicates the position of a pause) (p. 173):

64. a. High reading

Mary with.a.smile # ask.a.question student hit  
b. Low reading  
Mary # with.a.smile ask.a.question student hit

The same holds in Turkish as well:

65. Ali gülümseyerek soru soran öğrenciye vurdu.  
with.a.smile question asking to.the.student hit  
a. High reading  
‘With a smile on her face, Ali hit the student who was asking a question.’  
b. Low reading  
‘Ali hit the student who was asking a question with a smile on his face’

If the adjunct *gülümseyerek* ‘with a smile’ is parsed into the same I-phrase as with the subject *Ali*, it gets a high reading; if it is parsed into the same I-phrase with the object *öğrenciye*, it gets a low reading:

66. a. High reading  
Ali with.a.smile # ask.a.question student hit  
b. Low reading  
Ali # with.a.smile ask.a.question student hit

Interestingly, An notices, RNR structures where there are two contrasting adjuncts (*wusumyense* ‘with a smile’ and *insangssmyense* ‘with a frown’) are not ambiguous, i.e. the adjuncts only receive the high reading:

67. a. Mary-nun wusumyense, kuliko Jane-un insangssmyense, (K)  
 M-top with.a.smile and J-top with.a.frown  
cilmwunha-nun haksayng-ul ttari-ess-ta.

ask.a.question-rel student-acc hit-past-dec

‘With a smile, Mary (hit the student who was asking a question) and with a frown, Jane hit the student who was asking a question.’

b. Mary-wa warainagara, (sosite) Jane-wa okorinagara, (J)  
 M-top with.a.smile and J-top angrily  
shitsumon-shiteiru gakusei-o nagut-ta.

ask.a.question student-acc hit-past.dec

‘With a smile, Mary (hit the student who was asking a question) and with a frown, Jane hit the student who was asking a question.’

(ibid., p. 175)

68. Ali gülümseyerek, Mustafa kaşlarını çatarak, soru soran öğrenci-ye vurdu.  
 with.a.smile with.a.frown question asking student-dat hit

‘With a smile, Ali (hit the student who was asking a question) and with a frown, Mustafa hit the student who was asking a question.’

The question is why the low reading is inaccessible. Since the shared elements (= target) form a separate I-phrase from the conjuncts in RNR (62 repeated as 69), we get the following intonational phrasing in (70):

69. [<sub>iP</sub> first conjunct ] [<sub>iP</sub> and second conjunct ] [<sub>iP</sub> target ] (iP = I-phrase )  
 (An 2007: 171)

70. [<sub>iP</sub> Ali with.a.smile ] # [<sub>iP</sub> Mustafa with.a.frown ] # [<sub>iP</sub> a student . . . ]

Since each adverb is included in a separate I-phrase (which is a conjunct), it's quite natural that they get interpreted only in that I-phrase; in other words, I-phrase boundaries (i.e., #s) block any relation between the adverbs and the shared material. All this explains the inaccessibility of 'low readings' in RNR structures.

An notes that the low reading is still unacceptable though a pause precedes each adverb. In this case, the shared material would include the object but not the adjunct. However, this would require an I-phrase boundary between the adjunct and the object, 'which is not the correct prosodic structure under the low reading' (p. 176).

In conclusion, the shared material in RNR must be able to stand as an independent I-phrase either

(A) as a result of regular prosodic phrasing

Or

(B) as a result of a modification of the regular prosodic structure via contrastive stress assignment.

For instance, some material that cannot stand as a separate I-phrase cannot be shared:

71. \* Alice composed, and John performed, it. (Abbott 1976)



Since *it* behaves like a clitic, it cannot form a I-phrase by itself.

Evidence for Point B comes from the minimal pairs (72a-73a and 72b-73b). In (72a-b), the conjunct final elements *interesting* and *brilliant* are not contrastively stressed, and the structure is illicit; however, in (73a-b), conjunct final elements *INTERESTING* and *BRILLIANT* are contrastively stressed, and the structure is licit.<sup>99</sup>

72. a. \* John wrote an interesting, and Elvira wrote a brilliant, thesis on nightingales.  
(McCawley 1988)

b. \* I think Mary's, but he thinks Susan's, father is sick.  
(An 2007: 179)

73. a. John wrote an *INTERESTING*, and Elvira wrote a *BRILLIANT*, thesis on  
nightingales.  
(McCawley 1988)

b. I think *MARY'S*, but he thinks *SUSAN'S*, father is sick.  
(An 2007: 181)

According to An, the examples in (73) improve because contrastive stress inserts an I-phrase boundary after the phrase that receives it (and a pause occurs after a contrastively-stressed element) (Selkirk 1984, Kanerva 1989, Swingle 1993, Truckenbrodt 1995, Ladd 1996). This happens only in RNR (c.f. footnote 8). The I-phrasing of the grammatical cases can be seen below:

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<sup>99</sup> Put heavy stress but not contrastive stress on the final element in each conjunct.



76. If a shared constituent  $\alpha$  surfaces inside the *final* conjunct (as in Right Node Raising), then the gaps corresponding to  $\alpha$  in all non-final conjuncts must be at the *right edge* of their respective conjuncts, whereby that position must be a possible surface position for  $\alpha$ .

Wilder gives the following examples as arguments for his points (p. 244):

77. a. John has bought \_\_\_ and Mary will read *the paper*  
b. \* John can \_\_\_ your book and Mary will *read* the paper  
c. John should fetch \_\_\_ and give *the book* to Mary  
d. \* John should give \_\_\_ the book and congratulate *that girl*<sup>100</sup>

---

<sup>100</sup> Alexander Williams (p.c.) notes grammaticality of the following examples where the shared element is not the rightmost element in the first conjunct. However, note that the rightmost element in the first conjunct in (i&ii) is an adjunct whereas it is an argument in (77d). Maybe, adjuncts do not count as right/left-most elements unlike arguments. This issue is beyond the scope of this paper, so I will leave it an open issue:

(i) Harry will send \_\_\_ to London, and George will then pick up \_\_, all the documents we need.

(ii) I will photocopy \_\_\_ this afternoon, and then at least skim \_\_\_ by tomorrow morning, all the readings for our class.

He also notes that it's worth noting in this context the further fact that the first object of a ditransitive, unlike the first object of a *to*-dative, will not allow extraposition, which means that the ungrammaticality of (62d) due to a more general restriction on extraposition:

(iii) \*John should give the book his favorite uncle.

(iv) Harry will send to London all the documents we need.




first conjunct) is not at the right edge of the conjunct. However, the structure is grammatical. In ex. (79b), on the other hand, the shared element is not the rightmost element in the second conjunct, preceded by the verb, and the structure is ungrammatical. Ex. (79a) is grammatical because the shared element is the rightmost element in the second conjunct.

We could change the requirement (76 (repeated as (80))) such that it requires that no phrase follows the corresponding gap in the non-final conjunct(s); let us note that the element following *balığı* ‘the fish’ in (79a) is a verbal head, *pişirdi* ‘cooked’. In that way, the grammaticality of (79a) could be explained. However, we need to check whether cases where a phrase follows the corresponding gap in the non-final conjunct(s) are grammatical:<sup>101</sup>

80. If a shared constituent  $\alpha$  surfaces inside the *final* conjunct (as in Right Node Raising), then the gaps corresponding to  $\alpha$  in all non-final conjuncts must be at the *right edge* of their respective conjuncts (i.e., no phrase follows them in their respective conjunct), whereby that position must be a possible surface position for  $\alpha$ .

81. Hasan Tolga-ya<sub>1</sub> dergi-yi verdi, Meral (de) t<sub>1</sub> gazete-yi sattı Tolga-ya<sub>1</sub>  
 -DAT magazine-ACC gave also magazine-ACC sold -DAT  
 ‘Hasan gave the magazine, and Meral sold the newspaper, to Tolga.’



<sup>101</sup> Following Öztürk (2005), I take the ordering of ditransitives as ‘IO + DO + V’.

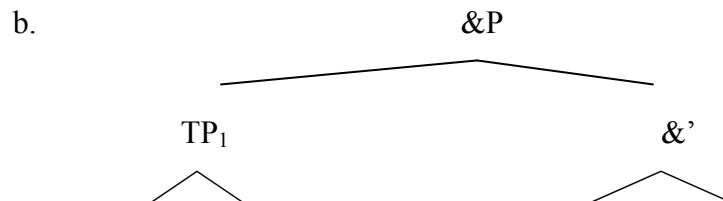
82. Ayşe \_\_\_\_\_ bayılıyor, Murat para \_\_\_\_\_ veriyor Tolga-ya.  
                   liking                  money          giving          -DAT  
 ‘Ayşe likes and Murat gives money to Tolga.’

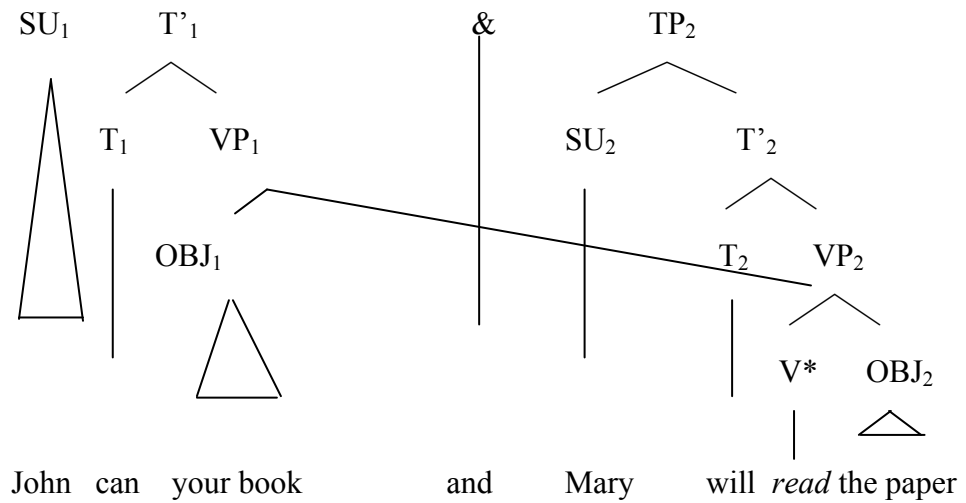
83. Murat \_\_\_\_\_ para veriyor Ayşe \_\_\_\_\_ bayılıyor Tolga-ya.  
                   money giving                  likes          -DAT  
 ‘Murat gives money and Ayşe likes Tolga.’

In ex. (81), the corresponding gap in the first conjunct is followed by another phrase, namely DO *dergiyi* ‘the magazine’, but the structure is still grammatical. This clearly shows that even the revised version of Wilder’s generalization in (80) does not hold in Turkish.

Wilder (2008) notes that his generalization is a consequence of linearization in terms of LCA. If an element follows the shared element in the first conjunct, a symmetry violation will arise because since the shared element c-commands an element that follows it, it will precede it, but at the same time, since the first conjunct c-commands the shared element – the shared element being a member of the second conjunct as well, all its terminals – including the element that follows the shared element- will precede the shared element:

84. a. \*John can \_\_\_ your book and Mary will *read* the paper.





c. V\* c-commands into OBJ<sub>1</sub>: read < {your, book}

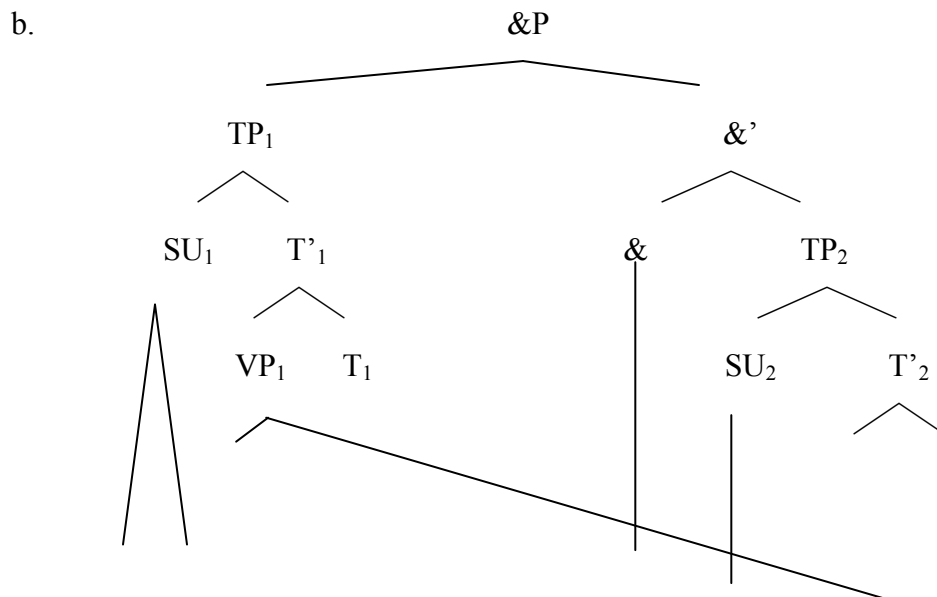
d. TP<sub>1</sub> c-commands V\*: {John, should, your, book} < read

(Wilder 2008: 245)

However, in the grammatical example (85a) in Turkish, we have exactly the same configuration:

85. a. Hasan \_\_\_\_<sub>1</sub> pişirdi , Mehmet yedi **balığı**<sub>1</sub>.  
 cooked ate fish

‘Hasan cooked and Mehmet ate the fish.’





Turkish being a head final language, the verb in the first conjunct follows the shared OBJ (see Kural (1997) against a Spec-Head-Complement analysis of Turkish under Kayne LCA). Under Wilder’s analysis, we would get a violation since:

- 86. a. OBJ\* c-commands into V<sub>1</sub>: balığı < pişirdi
- b. TP<sub>1</sub> c-commands OBJ\*: {Hasan, pişirdi} < balığı

However, the structure is linearized in Turkish, showing that LCA cannot account for the Turkish data. Also, under LCA, a couple of (unmotivated) movement operations would be required to explain how the OBJ\* occurs in post-verbal position in the second conjunct. OBJ\* would need to move to a position above TP<sub>2</sub>, and then TP<sub>2</sub> would need to move to a position above OBJ\*.

Further, Wilder’s generalization in (76) (repeated in 87) describes/predicts the grammatical example of (77c) (repeated in 88). Interestingly, similar examples where the coordination consists of two clauses rather than two VPs/vPs and the shared element is the rightmost element only in the non-final conjunct are ungrammatical (79a-b):

- 87. If a shared constituent *α* surfaces inside the *final* conjunct (as in Right Node Raising), then the gaps corresponding to *α* in all non-final conjuncts must be at



the *right edge* of their respective conjuncts, whereby that position must be a possible surface position for  $\alpha$ .

88. John should fetch \_\_\_ and give *the book* to Mary

89. a. \* Mary congratulated \_\_\_\_, and Bill gave, *the boy* the prize.

(An 2007: 105)

b. \* John should fetch \_\_\_\_, and Brian should give *the book* to Mary.

In both 89 a&b, the shared element *the boy/the book*, respectively, is the rightmost element in the non-final conjunct, but both are ungrammatical. The only difference between 88 vs. 89a-b is that the first one is a low-level (vP/VP) coordination because both *John* and *should* are shared by both conjuncts (see footnote 12 for a possible account).

As evidence for his generalization, Wilder gives (77b-d) (repeated as ex. 90a-b), where the shared element is not the rightmost element in the non-final conjunct (though, see footnote 7). In 90a, the shared element is the rightmost element in neither of the conjuncts, and in 90b it is not the rightmost element in the non-final conjunct but is the rightmost element in the final conjunct. In the ungrammatical examples of (89a-b), the shared element is not the rightmost element in the final conjunct though it is in the non-final conjunct (let's put aside (88) for now). This could mean that the shared element has to be the rightmost element in all conjuncts. Interestingly, Sabbagh (2007) comes up with such a generalization, which is the topic of the next subsection.

90. a. \* John can \_\_\_ your book and Mary will *read* the paper  
 b. \* John should give \_\_\_ the book and congratulate *that girl*

7.2. Sabbagh (2007)

Sabbagh gives a stricter version of Wilder's generalization in (76):

91. *Right Edge Restriction* (RER)

In the configuration:

[[A...X...] Conj. [B...X...]]

X must be rightmost within A and B before either (i) X can be deleted from A;  
 (ii) X can be rightward ATB-moved; or (iii) X can be multiply dominated by A  
 and B.

For Sabbagh, who argues for ATB-movement analysis of RNR, the shared element has to be the rightmost in both/all conjuncts before ATB extraction. *RER* would account for (un)grammaticality of all the examples in (77) and (90) (repeated as 92 & 93, respectively) but (77c/92c):

92. a. John has bought \_\_\_ and Mary will read *the paper*  
 b. \* John can \_\_\_ your book and Mary will *read* the paper  
 c. John should fetch \_\_\_ and give *the book* to Mary  
 d. \* John should give \_\_\_ the book and congratulate *that girl*

93. a. \* Mary congratulated \_\_\_, and Bill gave, *the boy* the prize.

(An 2007: 105)

- b. \* John should fetch \_\_\_, and Brian should give *the book* to Mary.

In (92a), the shared element *the paper* is the rightmost element in both conjuncts, so the structure is licit. In (92b), the shared element *read* is not the rightmost element in any conjunct (*read > your book*, *read > the paper*), so the structure is illicit. In (92d), the shared element *that girl* is the rightmost element in the final conjunct but not in the non-final conjunct (*that girl > the book*). In (93a) and (93b), the shared element *the boy/the book* is the rightmost element in the non-final conjunct but not in the final conjunct (*the boy > the prize*, *the book > to Mary*), which is why the example is illicit. However, under RER, (92c) is expected to be illicit because the shared element *the book* is not the rightmost element in the second conjunct (*the book > to Mary*), but the structure is licit. So, we need an account for that piece of data.<sup>102</sup>

However, the RNR data from Turkish again shows that *RER* cannot be generalized to Turkish because X (91) in a non-final conjunct does not need to be the rightmost element in its conjunct. Sabbagh also gives the following generalization (p. 359):

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<sup>102</sup> The fact that (92c) is a low level coordination could give us one of the following:

- i. . . . [fetch \_\_\_\_]<sub>1</sub> and give [the book]<sub>1</sub>] to Mary
- ii. . . . [fetch and give] the book to Mary

Where *and* has a causal meaning as in ‘Come and see . . .’. In (i), the event amalgam of ‘fetch and give the book’ takes *to Mary* as its IO; in (ii), the event amalgam of ‘fetch and give’ takes both *the book* and *to Mary* as its DO and IO (I am indebted to V. Hacquard for the relevant discussion). So, in (i), the shared material *the book* is the rightmost element in both conjuncts; therefore, RER holds, and the structure is licit. (ii), on the other hand, would not be RNR because nothing is shared.



(97a) shows that the direct object DO in the complement structure and the matrix verb  $V^{\text{matrix}}$  are (first-)merged in separate cyclic nodes. However, as (97b) shows, the DO can follow the matrix verb, which would be a violation of RCC.

Sabbagh, following Fox & Pesetsky's 'cyclic linearization' model, takes  $vP$ , CP and PP as Spell-Out Domains (SOD). As to  $vP$  and PP, he assumes that the complete projection of  $vP$  and PP is linearized; however, he also assumes that TP complement of CP is linearized. This system is inconsistent in that it is not clear why the complete projection of  $vP$  and PP can be linearized, whereas the domain/complement of CP but not the whole CP is linearized.

Also, if we follow the Fox & Pesetsky system in this context, we would expect the following to be true –I do not see any theoretical argument against it:

98. *Leftward Crossing Constraint*

Leftward movement of X may not cross phonologically overt material which is not contained within the cyclic node (=  $vP$ , PP) wherein X is initially merged.

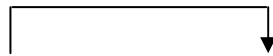
However, the following data where a wh-phrase is extracted out of an island without crossing any overt material in the phase in which it is merged is ungrammatical:

99. \*I wonder [<sub>CP</sub> who<sub>1</sub> [<sub>DP</sub> \_\_\_<sub>1</sub> is more intelligent] is certain.

In sum, the way Sabbagh takes the Fox & Pesetsky system overgenerates.

To sum, REG, which is a softer version of RER, holds in Turkish. In other words, it is adequate that the shared element be the rightmost element in the final conjunct or the matrix structure that contains the conjunction. REG definitely is not adequate for the English data where RER holds. Do we need to have two separate ‘edge’ restrictions/generalizations for different languages, or do we need to assume one restriction/generalization but also some other additional constraint/restriction for some languages? I will take the second route and suggest that the difference between English and Turkish is due to the prolific ‘rightward movement’ property of Turkish. In Turkish, there are three restrictions on ‘rightward movement’. A wh-phrase cannot move rightward (100). A phrase cannot move rightward and adjoin to a complement clause (24 repeated as 101). Finally, rightward movement is island-sensitive (In (102), the rightward movement of *kitabı* ‘the book’ out of the Relative Clause is illicit):

100. (Kim-i) Uğur (kim-i) gördü (\*kim-i)?  
 who-ACC who-ACC saw who-ACC  
 ‘Who did Uğur see?’



101. \*Ahmet [[Ali-nin  $t_1$  öptüğünü] Ayşe-yi<sub>1</sub>] biliyor.  
 -GEN kissed -ACC knows  
 ‘Ahmet knows that Ali kissed Ayşe.’

102. \*Kaan [[Ecem-in  $t_1$  verdiği] çocuğ-u] tanıyor kitab-ı.  
 -GEN kissed child-ACC knows book-ACC

‘\*Kaan knows the boy who Ecem gave, the book ’

In the following lines, I will argue that RER holds also in Turkish, i.e. the shared element has to be the rightmost elements in all conjuncts. However, I will argue RER is a generalization/ constraint on derivations, not a constraint on the representation. In other words, since rightward movement is licit in Turkish, shared material moves rightward (i.e. to a post-verbal position) at any stage of the derivation. This way, RER can hold at any stage of a derivation; and, once it is satisfied, it need not be satisfied at later stages of the derivation.

To explore how this works, let us look at the derivation of the following examples:

103. [[Hasan karides-i **yedi** ], [Mehmet te istiridye-yi **yedi**]]  
Hasan shrimp-ACC ate Mehmet also oyster-ACC ate  
'Hasan (ate) the shrimp, and Mehmet ate the oyster.'

104. Mehmet \_\_\_<sub>1</sub> pişirdi , Hasan da \_\_\_<sub>1</sub> yedi , **elma-yı**.  
cooked also ate apple-ACC  
'Mehmet cooked and Hasan ate, the apple.'

Turkish being a head-final language, the shared verb *yedi* ‘ate’ is the final element in both conjuncts in (1) (repeated as (103)). So, RER holds:

105. [ \_\_\_<sub>1</sub> *yedi* ] & [ \_\_\_<sub>1</sub> *yedi* ] ↵





109. . . . [ . . .  $t_1$  pişirdiğini elmay<sub>1</sub> ] . . . .

As to DO in the second conjunct, it is the rightmost element in the matrix clause. We can assume that RER holds either in its overt position or when it right-adjoins to the second conjunct during its successive-cyclic movement to the right-periphery of the matrix clause:

110. [MatrixClause . . . [Conj2 [Conj2 . . .  $t_2$  . . . ] *elmay<sub>2</sub>*] . . . *elmay<sub>2</sub>*]



RER HOLDS AT ANY STAGE  
OF RIGHTWARD MOVEMENT

However, we seem to have a problem here. As we have seen in (101), rightward adjunction is illicit in embedded contexts. However, we have assumed that the DO right-adjoins to the first conjunct in (108) (see 109). I take the ban on rightward adjunction as a requirement which states that an element cannot be pronounced in the right periphery of a complement clause. It is open for successive-cyclic movement, for example. Otherwise, a phrase could not move to the right-periphery of the matrix clause:

111. [CP<sub>1</sub> [CP<sub>1</sub> . . . [CP<sub>2</sub> [CP<sub>2</sub> . . .  $t_1$  . . . V]  $t_1'$ ] V] DP<sub>1</sub>]



So, I express the ban on rightward adjunction to complement clauses as follows: no element can be pronounced in the right periphery of a complement clause. It's not that no phrase can right-adjoin to a complement clause. So, any phrase can right-adjoin to a complement clause unless it is pronounced there. Therefore, the ban on rightward adjunction to a complement clause is a PF-condition. However, the jury is still out as to why no element can be pronounced in the right-periphery of a complement clause.

To go back to our problem, then, the DO can right-adjoin to the first conjunct, and since it is not pronounced in that position due to elision, no (PF) violation arises. As shown in (119c), the identical DO in the right periphery of the first conjunct is elided. Therefore, it does not violate the 'ban on rightward adjunction to complement clauses', and the structure is licit:

112. a. [Conj1 . . . . .  $t_1$  pişirdiğini elmay<sub>1</sub>] . . . RER SATISFIED  
 b. [Conj2 . . . . .  $t_1$  . . . ] elmay<sub>1</sub> RER SATISFIED  
 c. . . . [Conj1 . . . . . ~~elmay<sub>1</sub>~~ ] [Conj2 . . . . . ] . . . elmay<sub>1</sub>

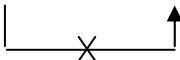
In summary, RER can hold at any stage of a derivation. Since Turkish allows rightward movement, the shared element in the first conjunct whether heavy or not can move to the post-verbal position at any stage of a derivation and satisfies RER at that stage. Since it is elided being identical to an element in the second conjunct, it is not pronounced in the post-verbal position, not violating the 'ban on rightward adjunction to complement clauses'. As to why the shared element right-adjoins to the first conjunct, I suggest that it

does because it is background information, and in Turkish the post-verbal position is the background information position (Taylan 1984).

Now, let us explore island-(in)sensitivity of RNR in Turkish and English. RNR is reported to be island-insensitive in English (though see Sabbagh (2007) for certain restrictions on that); however, it is island-sensitive in Turkish:

A case where the shared element is inside an island as in (113) is illicit because the shared element needs to move out of the island to the edge of the second conjunct to be able to form a separate prosodic phrase (114), which is illicit. Since the shared element cannot form a separate prosodic phrase, the identical element in the first conjunct cannot be deleted. So, RNR is island-sensitive in Turkish (and I guess in all head-final languages):

113. \*Tolga [[~~kek-i~~ yi-yen] bir adam-la] tanıştı, Ecem [[ \_\_\_\_<sub>1</sub> pişir-en] bir  
 cake-ACC eat-SR a man-COMM met cook-SR a  
 adam-la] konuştu, kek-i<sub>1</sub>.  
 man-COMM spoke cake-ACC  
 ‘Tolga met a man who ate and Ecem talked to a woman who cooked, the cake.’

114. [Conjunct1 . . . [RC *keki* . . .] . . . ] & [[Conjunct2 . . . [RC *keki* . . .] . . . ] ]  


The next question is how come RNR is island-insensitive in English (115): The shared material is already the rightmost phrase in the second conjunct (116a), therefore it can

form a separate prosodic phrase (116b), and the identical phrase in the first conjunct can be deleted (116c):

115. John likes a professor who lectured on and Mary likes a graduate student who debunked, **a recent theory of Right Node Raising**.

116. a. [Conjunct1 . . . [RC . . . *a recent theory of Right Node Raising*]]

&

[Conjunct2 . . . [RC . . . **a recent theory of Right Node Raising**]]

b. (conjunct1 . . . ) $\phi$  (conjunct2 . . . ) $\phi$  ( a recent theory of Right Node Raising ) $\phi$

c. John likes a professor who lectured on **a recent theory of Right Node Raising** and Mary likes a graduate student who debunked **a recent theory of Right Node Raising**.

However, in English [+focus] elements undergo Heavy NP-shift (H. Lasnik (p.c.)). Since shared elements are not [+focus] (they do not bear focal stress, for example), they cannot right-adjoin to a conjunct. So, holding of RER is restricted to elements that are the rightmost element in their canonical position in RNR structures.

### 8. Why RER?

The next question is why RER needs to hold in RNR structures. According to RER, the shared material needs to be the rightmost element in the final conjunct/matrix clause and

also in the non-final conjuncts. We have in some sense answered in section 5 why the shared element needs to be the rightmost element in the conjunction or the matrix clause. The reason is that the shared material has to be able to form a separate I(ntonation)-phrase from the rest of the conjunction. For this reason, it has to be the rightmost element in the conjunction.

As Wagner (2005: 98-99) points out (though see Hartmann 2000, Selkirk 2002, to appear), there is a strong boundary between the shared material and the rest of the conjunction in RNR structures:

117. She wanted to begin | and then decided to postpone || her dissertation.

Therefore, we seem to have accounted for some part of the RER. The next question is why it has to be the rightmost element in non-final conjuncts as well. I will answer this question in the following section.

### 9. RNR: String Deletion

In previous chapters, we have seen that a certain constraint on Sluicing and Gapping is not a constraint on RNR. Sluicing and Gapping do not allow cross-clausal remnants (118a-b, respectively). In other words, remnants need to be clause-mate (for some exceptions, see Kuno 1976 and Nishigauchi 1998). However, the shared material can be cross-clausal in RNR structures (46 repeated as 119), although we have seen that RNR is

also PF-deletion due to agreement facts, head adjunction and ‘adjunction to complement clauses’:

118. a. Some student said that Jane danced with some professor, \*but I don’t know which student ~~said that Jane danced~~ with which professor.  
 b. Jane reported that Mary talked to Liz, \*and Jen ~~reported that Mary talked to~~ Annie.

119. **Ekme-ği**, Uğur , **pilav-ı** Ecem, **Ibrahim-in** t **yediğini** **söyledi**.  
 bread-acc                      rice-acc                      -gen      ate              said  
 ‘The bread, Uğur (said that Ibrahim ate), and the rice, Ecem said that Ibrahim ate.’

The shared material in (119) consists of the embedded subject *Ibrahim-in*, the embedded verb *yediğini* ‘ate’ and the matrix verb *söyledi* ‘ate’. This shows that there is an apparent difference between RNR, on the one hand, and Sluicing and Gapping, on the other hand. If all these elliptical structures are PF-ellipsis phenomenon, as I argue for in this dissertation, then, I need to account for why RNR is different from the other elliptical structures with respect to cross-clausal remnants.

In Sluicing and Gapping, a CP boundary cannot intervene between the canonical position of remnants before their extraction (120a-b, respectively):

120. a. \*... which student ... [CP ... with which professor ...  
 b. \*... Jen ... [CP ... to Annie ...

However, a CP boundary intervenes between the remnants in the first conjunct in (119), when the scrambled DO *ekmeđi* ‘the bread’ is in its canonical position in the complement clause:

121. Uđur . . . [<sub>CP</sub> . . . ekmeđi . . .

I contend that the PF-deletion in sluicing and gapping, on the one hand, and in RNR, on the other hand, are different operations. In the first case, (marking for) PF-deletion takes syntactic nodes into consideration. In other words, it does not mark a structure for deletion if a CP node occurs between remnants. However, in RNR, PF-deletion does not take syntactic nodes into consideration. It rather applies after a syntactic structure is turned into a linear(ized) phonological/prosodic string, which consist of lexical blocks. PF-deletion in RNR targets these lexical blocks for elision:

122. a. . . . [LB1] [LB2] [LB3] . . .

b. . . . [[LB1] [LB2] **[LB3] [LB4] [LB5]**] [[LB6] [LB7] **[LB3] [LB4] [LB5]**]

In (122b), the lexical blocks [LB3] [LB4] [LB5] are identical, so this substring is elided in the first conjunct:

123. . . . [[LB1] [LB2] ~~[LB3] [LB4] [LB5]~~] [[LB6] [LB7] **[LB3] [LB4] [LB5]**]

Definitely, the lexical blocks to be deleted need to be compared, moved and marked for elision in Narrow Syntax. All this difference between RNR, on the one hand, and other elliptical structures, on the other hand, there are (at least) two different representations for syntactic structure. One is hierarchy-based (as in tree-diagrams), and the other lacks hierarchy but just gives a linear order of lexical blocks.

If comparison were purely in terms of phonological identity, verbs bearing different agreement markers would not be elided in RNR (16 repeated as 124). I assume that while comparison is done between elements in Narrow Syntax the agreement morphemes are still bundles of features, so they are not taken into consideration while lexical items are compared:

124. Sen elma-yı ~~ye-di-n~~ , ben armud-u ye-di-m.  
 you apple-ACC eat-PST-2S I pear-ACC eat-PST-1S  
 ‘You (ate) the apple, and I ate the pear.’

Now, we can answer the question with which we ended the previous section. Since syntactic structure is in the form of a linear string before PF-deletion occurs in RNR, PF-deletion can target elements in the edge of a sub-string. However, it cannot target a block in the middle of a substring. We know that phonological operations at phrasal level target a certain edge of a phrase. For example, in Turkish, the first word is chosen for main stress assignment (Kabak & Vogel 2001) (PW = phonological word).

125. [[**telefon** ]<sub>PW</sub> [et-ti-ler ]<sub>PW</sub> ] (ibid. p. 338)



telephone            AUX-PAST-3PL

Since elision starts from the edge of a (sub)string, the material needs to be at the edge. Otherwise, PF-elision will delete everything else at the edge until it reaches the shared material in non-final conjuncts.

An's (2007) *Target-Internal Adjacency*, which argues for a linear adjacency requirement for shared material (i.e., the material to be deleted in the non-final conjunct(s) need(s) to be linearly adjacent) seems to support 'string deletion' in RNR:

126. *Target-internal Adjacency*

Elements affected by RNR must be linearly adjacent to each other, i.e., no overt material can intervene between the elements in the target of RNR.

(ibid., p. 155)

127. Lydia-nun Ana-ka ~~bap-ul~~ ~~mekess-tako~~ ~~malhayssta~~ kuliko            (K)  
L-top    A-nom rice-acc ate-comp    said        and  
Nina-nun Tomo-ka ~~bap-ul~~ ~~mekess-tako~~ ~~malhayssta~~.  
N-top    T-nom    rice-acc ate-comp    said  
'Lydia (said that) Ana (ate rice) and Nina said that Tomo ate rice.'

128. Lydia-wa Ana-ga ~~gohan-o~~ ~~tabeta-to~~ ~~itta~~ (sosite)            (J)  
L-top    A-nom    rice-acc    ate-comp    said    and  
Nina-wa Tomo-ga ~~gohan-o~~ ~~tabeta-to~~ ~~itta~~.  
N-top    T-nom    rice-acc    ate-comp    said  
'Lydia (said that) Ana (ate rice) and Nina said that Tomo ate rice.'

(An 2007: 151-2)

129. Ramona hat Peter ~~gefragt, wann der Nikolaus endlich kommt~~, und (G)  
 has asked when the Santa.Claus finally arrives and  
 Romana hat Martin gefragt, wann der Nikolaus endlich kommt.  
 has asked when the Santa.Claus finally arrives  
 ‘Ramona asked Peter, and Romana asked Martin when Santa Claus will finally  
 arrive.’

(Hartmann 2000: 57)

This also holds in Turkish:

130. Ecem Tolga-nın ~~pilav-ı yediğini söyledi~~, Uğur Kaan-ın pilav-ı (T)  
 -gen rice-acc ate said -gen rice-acc  
 yediğini söyledi.  
 ate said  
 ‘Ecem (said that) Tolga (ate rice) and Uğur said that Kaan ate the rice.’

The ungrammaticality of deletion of non-adjacent elements, An points out, shows that  
 ‘linear adjacency’ is a general property of RNR:

131. \* Lydia-nun ~~Ana-ka ppang-ul mekess tako malhayssta~~ kuliko (K)  
 L-top A-nom bread-acc ate-comp said and  
 Nina-nun Ana-ka bap-ul mekess-tako malhayssta.  
 N-top A-nom rice-acc ate-comp said  
 ‘Lydia (said that Ana ate) bread and Nina said that Ana ate rice.’

132. \* Lydia-wa ~~Ana-ga pan-o tabeta to itta~~ (sosite) (J)



N-top rice-acc A-nom ate-comp said

‘Carlos (said that Ana ate) bread and Nina said that Ana ate rice.’

(ibid., p. 153-4)

136. Ecem ekmeğ-i<sub>i</sub> ~~Kaan-ın~~ t<sub>j</sub> yediğini söyledi, Uğur pilav-t<sub>j</sub> (T)

bread-acc -gen ate said rice-acc

Kaan-ın t<sub>j</sub> yediğini söyledi.

-gen ate said

‘Ecem (said that Kaan ate) the bread and Uğur said that Kaan ate the rice.’

One issue (Howard Lasnik, p.c.) is how verbs with different agreement markers are deleted in this model, since they are not phonologically identical. I suggest that elements are compared marked for elision in Narrow Syntax (NS). So, verbs are compared and marked for elision in NS before either any subject-verb agreement relation is established or before the phonological realization of agreement (markers). When the syntactic structure is turned into a linear string of lexical blocks, identicalness is not re-computed, and identical element in the first conjunct is elided without any violation of identicalness arising.

### 10. RNR in Tagalog

In this section, I will show that PF-ellipsis analysis of RNR in Turkish can also account for RNR in Tagalog (Sabbagh, 2008). Tagalog has a “subject-only” restriction, which allows A'-movement of arguments (subjects and non-oblique objects) only when the verb shows agreement with them (Keenan, 1976; Schachter, 1976; Chung, 1998; Rackowski, 2002; Rackowski & Richards, 2005; Sabbagh, 2008). In (137a), the verb shows agreement with the Agent *Juan*, and in (137b) with the DO *the book*. Notice that the DP with which the verb shows agreement bears the Case marker *ang* (*si* with proper names):<sup>103</sup>

137. a. *Humahawak ng aklat si Juan.*  
 AGR.ASP.hold NS book S Juan  
 ‘Juan is holding a book.’  
 b. *Hinahawak-an ni Juan ang aklat.*  
 ASP.hold-AGR NS Juan S book  
 ‘Juan is holding the book.’

(Sabbagh 2008: 503)

An agent or non-oblique argument that is not in Subject cannot be extracted (138a vs. 138b), unlike adjuncts (138c) and oblique arguments (138d):

138. a. *Sino ang n-agnakaw ng kotse mo?*  
 who S ACT.PERF-steal NS car you(NS)  
 ‘Who stole your car?’  
 b. \**Sino ang ninakaw ang kotse mo?*

---

<sup>103</sup> S: subject marker, NS: non-subject marker.

who S PERF.steal.AGR S car you(NS)

‘Who stole your car?’

c. Gaano-ng kabilis tumakbo si Juan?

how-L fast AGR.ASP.run S Juan

‘How fast does Juan run?’

d. Sa ali-ng kalabaw i-binigay ng lalaki ang bulaklak?

OBL which-L water.buffalo AGR- ASP.give NS man S flower

‘To which water buffalo did the man give the flower?’

(Sabbagh 2008: 504)

In addition, preposition-stranding is not allowed in Tagalog, either (139a-139b):

139. a. *Para kanino bumili si Pedro ng pagkain?*

for who(OBL) AGR.ASP.buy S Pedro NS food

‘For who(m) did Pedro buy food?’

b. \**Kanino bumili si Pedro ng pagkain [para \_\_\_\_\_]?*

who(OBL) AGR.ASP.buy S Pedro NS food for

‘For who(m) did Pedro buy food?’

(*ibid.*, p. 505)

In a similar way, Sabbagh notes, only those elements that can be extracted can be RNR-ed (140a-b-c, whereas a non-oblique argument –with which the verb does not agree– cannot (140d) and neither can a preposition be stranded (140e):

140. a. [*Hindi n-agluto’ ng bigas \_\_\_\_\_*] at [*hindi kumain ng isda \_\_\_\_\_*]

not AGR.ASP-cook NS rice and not AGR.ASP-cook NS fish

*ang pareho-ng babae.*

S same-L woman

‘The same woman did not cook rice and did not eat fish.’

- b. [Kung hindi maingat \_\_\_\_ ] at [wala’-ng hinala \_\_\_\_ ] *ang*  
 if not careful and not.have-L suspicion S  
*mangkukulam ...*

sorcerer

‘If the sorcerer is not careful and has no suspicion . . .’

- c. [*Linuto*’ ni Pedro ang pagkain \_\_\_\_ ] at [hinugas-an ni Juan  
 ASP.buy.AGR NS Pedro S food and ASP.wash.AGR NS Juan S  
 ang pinggan \_\_\_\_ ] *para kay Maria*.  
 dish for OBL Maria

‘Pedro bought the food, and Juan washed the dishes, *for Maria*.’

- d. \*[N-agsara si Juan \_\_\_\_ ] at [n-agbukas si Pedro \_\_\_\_ ] *ng*  
 AGR.ASP-close S Juan and AGR.ASP-open S Pedro NS  
*pintuan*.

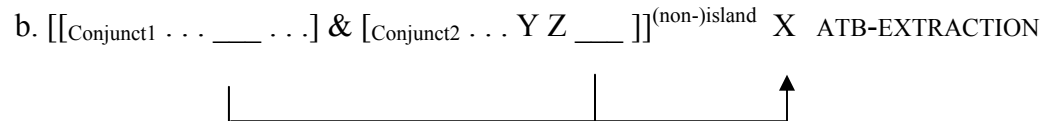
door

‘Juan closed, and Pedro opened, a door (= the same door).’

- e. \*[*Linuto*’ ni Pedro ang pagkain [*para* \_\_\_\_ ]] at [hinugas-an  
 ASP.cook.AGR NS Pedro S food for and ASP.wash.AGR  
 ni Juan ang mga pinggan [*para* \_\_\_\_ ]] *kay Maria*.  
 NS Juan S PL food for

Although Sabbagh takes this as evidence that preposition-stranding is not allowed in Tagalog, it is indeed an argument against his (2007) version of ATB analysis of RNR. In his analysis, rightward movement is unbounded as long as it does not change linear order. In other words, a phrase can be ATB-extracted as long as it keeps the same pre-extraction linear order:

143. a. [[Conjunct1 . . . X . . . ] & [Conjunct2 . . . Y Z X ]]<sup>(non-)island</sup> PRE-ATB-EXTRACTION



The ordering of X after ATB-extraction is the same with the pre-ATB-extraction ordering, creating no violation of Order Preservation (Fox & Pesetsky 2004, 2005), and that's why RNR is island-sensitive in English, he concludes:

141. Y > Z > X

Although the same ordering is kept in Tagalog P-stranding in RNR, the structure is ungrammatical. Under his analysis, P-stranding is expected to be grammatical:

- 142. a. *para > kay > Maria* pre-ATB extraction
- b. *para > kay > Maria* post-ATB extraction

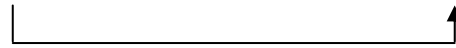
However, (my version of) PF-deletion analysis of RNR can also account for RNR in Tagalog. RNR is licit in cases where Agents and non-oblique arguments agree with the verb, thereby occur as the rightmost element in the clause, whereby the RER holds, in consequence of which the shared element in the first conjunct is elided (137a as in 143a, 137b as in 143b). Oblique arguments, as shown in ex. (138) and (139), can undergo A'-movement, crossing an argument in Subject position. Again, for the RER to hold, the shared element in the second conjunct can move to the right edge of the conjunct(ion), crossing the argument in Subject position (140c as in 144):



RER HOLDS

- 143. a. . . . ~~ang pareho-ng babae~~ . . . ang pareho-ng babae
- b. . . . ~~ang mangkukulam~~ . . . ang mangkukulam

- 144. . . . para kay Maria . . . \_\_\_\_\_<sub>1</sub> ang pinggan [para kay Maria]<sub>1</sub>



MOVES FOR RER TO HOLD

licensing deletion of the identical element in the first conjunct:

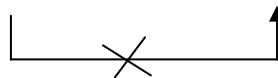
RER HOLDS

- 145. . . . ~~para kay Maria~~ . . . para kay Maria

On the other, RNR of a non-oblique argument that is not in Subject position is ungrammatical because the RER does not hold since the shared element in the second conjunct cannot cross the argument in Subject position (10d as in 146). Since the RER does not hold, the identical element cannot be deleted (147):

CANNOT MOVE, SO RER DOESN'T HOLD

- 146. \* . . . ng pintuan . . . \_\_\_\_\_<sub>2</sub> si Pedro [ng pintuan]<sub>2</sub>



- 147. \* . . . ~~ng pintuan~~ . . . ng pintuan si Pedro

RER NOT HOLDING

As to ungrammaticality of P-stranding in RNR structures in Tagalog, I contend that ungrammaticality arises because a preposition has to be left-adjacent to its complement – a phonological requirement. In other words, although the RER holds in (140e), deletion of the shared element in the first conjunct would leave the preposition without its complement; so, I contend that the preposition could not be cliticize to any element other than its complement in the first conjunct:

RER NOT HOLDING

148. a. \*... *para kay Maria* ... *para kay Maria*  
 b. ... \**para* Ø

Evidence for this comes from pronouns in Tagalog. Tagalog has two types of pronouns: enclitic forms (149a-c), and independent word forms (149b-d) (Culwell-Kanarek, 2005).

149. a. T-in-awag =niya    ang    bata  
       Pf-call        3P.Erg Abs child  
 b. Kanya =ng    t-in-awag    ang    bata  
       3P.Erg Lk    Pf-call        Abs child  
       ‘He/she called the child.’  
 c. [DP ang pangalan =niya    ]  
       Abs name        3P.Gen  
 d. [DP ang kanya =ng pangalan    ]  
       Abs 3P.Gen Lk name

(Culwell-Kanarek 2005: 51)

In the examples above, it is observed that the enclitic form has to be left-adjacent to a word, whereas the word from does not. Interestingly, as Culwell-Kanarek notes, only the word form *kanya* can be a complement to the dative marker/determiner/preposition *sa* (150b); however, I did not find any hit for ‘(para) *sa niya*’ on the internet:<sup>104</sup>

150. a. Nag-bigay =ako ng buklaklak [DP sa nanay ko ]  
 Intr.Pf-give 1P.Abs Gen flower(s) Dat mother 1P.Gen  
 ‘I gave flowers to my mother.’
- b. Nag-bigay =ako ng buklaklak [DP sa kanya ]  
 Intr.Pf-give 1P.Abs Gen flower(s) Dat 3P.Dat  
 ‘I gave flowers to him/her.’

From this I conclude that both *para* and *sa* are proclitics, therefore that they cannot occur with *niya* because it is an enclitic. Their co-occurrence would mean encliticization of *niya* to *para/sa* and procliticization of *para/sa* to *niya*. On the other hand, *para/sa* can cliticize to *kanya* because it is a word. In conclusion, *para* cannot be stranded not because of

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<sup>104</sup> Daniel Kaufman (e-mail communication) points out that another preposition *hanggang*, though it has to be pied-piped in A-bar movement, can be coordinated under its complement, unlike *para*, giving the following example:

- i. <um>a~asa ito=ng manatili sa=poder hanggang at lagpas sa=2004.  
 <AV>INCM~hope this=LNK AV:remain OBL=power until and beyond OBL=2004  
 ‘He (lit. this) hopes to remain in power until and beyond 2004’  
 From: <[www.philippinerevolution.net/angbayan/archives/2002/20020329pi.pdf](http://www.philippinerevolution.net/angbayan/archives/2002/20020329pi.pdf)>

syntactic reasons but because of phonological reasons, i.e. it has to procliticize to its complement.

The fact that *sa* can co-occur with the preposition *para* ‘for’ (data found on the internet) and that it cannot co-occur with another determiner (151b-c from Culwell-Kanarek 2005) shows that it is a Determiner:

151. a. *para sa kanya*<sup>105</sup>  
b. \**sa ang nanay ko*  
c. \**san g nanay ko*

In summary, PF-deletion analysis of RNR can account for Tagalog data as well as Turkish data, whereas the ATB-analysis can account for neither. Consequently, PF-deletion analysis is to be preferred over the ATB analysis to explain RNR phenomenon.

### 11. Remaining Issues

In the literature, it has been noted that there are some cases which show that the shared element in RNR is *ex-situ*. In other words, the shared element takes scope over the conjuncts. These are related to *quantifier scope*, *ACD* and occurrence of *same/different*.

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<sup>105</sup> See <http://singawnglupa.blogspot.com/2006/05/para-sa-kanya.html>,

[http://wiki.answers.com/Q/Ano\\_ang\\_sinabi\\_para\\_sa\\_kanya\\_ang\\_kasaysayan](http://wiki.answers.com/Q/Ano_ang_sinabi_para_sa_kanya_ang_kasaysayan), among others.

### 11.1. Quantifier Scope

Sabbagh (2007) reports that a universal quantifier as the shared material can take scope over an indefinite subject in RNR (152), unlike the non-RNR version (153):

152. Some nurse gave a flu shot to \_\_\_\_, and administered a blood test for \_\_\_\_,  
every patient who was admitted last night.

$(\exists > \forall, \exists < \forall)$

153. Some nurse have a flu shot to every patient, and administered a blood test for  
every patient.

$(\exists > \forall, * \exists < \forall)$

(Sabbagh 2007: 365)

Sabbagh continues, ‘According to an in situ analysis invoking deletion, the only difference between (152) and (153) would be that the pivot of the RNR construction has been deleted in (152) but not in (153). There is, however, no obvious way to correlate the application of backwards deletion with the scope possibilities of the pivot’, arguing that the scopal possibilities regarding (152) can be accounted under a movement, i.e. ATB, analysis. However, as described in this chapter, RNR is not bare deletion of an identical element in the non-final conjunct(s). The shared material forms an independent I-phrase as well as each conjunct. Therefore, *every patient who was admitted last night* forms a separate I-phrase in (152) in contrast to (153). Previous studies also have shown that there is a correlation between prosody and scope, and certain prosodies enable inverse scope for quantifiers and negation (Lasnik 1972, Krifka 1998, Sauerland & Bott 2002).

The different scopal reading of (152) quite possibly could be a consequence of the unique prosody of RNR structures.

Also, Hartmann (2000: 67) shows a contrast between a RNR structure and leftward ATB movement in German. An indefinite expression as the shared element in RNR predominantly has referential diversity in (154), whereas a leftward ATB-moved expression lacks referential diversity (155):

154. Hans kauft ~~einen Roman~~ und Maria liest einen Roman.  
          buys a novel and reads a novel  
          ‘Hans buys and Mary reads a novel.’

155. [Welchen Roman]<sub>1</sub> hat Hans *t*<sub>1</sub> gekauft und Maria *t*<sub>1</sub> gelesen?  
          which novel has bought and read  
          ‘Which novel did Hans buy and Mary read?’

In (154), in the dominant reading the book that Hans buys and the book that Mary reads are not the same. In (155), on the other hand, the only interpretation is: for which novel is it true that Hans bought it and Mary read it (ibid., p. 67).

## 11.2. Antecedent Contained Deletion

In the following examples (156a-b) where the shared material contains an ACD structure, Sabbagh remarks,  $\Delta$  can be interpreted in two ways; it can be either the coordination of embedded VPs (157a) or matrix VPs (157b):

156. a. The nurse said that she was going to give a flu shot to \_\_\_\_, and administer a blood test for \_\_\_\_, every patient that the doctor did  $\Delta$ .
- b. The nurse tried to give a flu shot to \_\_\_\_, and administer a blood test for \_\_\_\_, every patient that the doctor did  $\Delta$ .

(Sabbagh 2007: 367)

157. a.  $\Delta$  = give a flu shot to x and administer a blood test for x
- b.  $\Delta$  (156a) = say that he was going to give a flu shot to x and administer a blood test for x
- $\Delta$  (156b) = try to give a flu shot to x and administer a blood test for x

Sabbagh also remarks that in the non-RNR version of (156a-b) as in (158), only a conjunct-mate VP can be construed (159a-b):

158. The nurse said that she was going to give a flu shot every patient that the doctor did  $\Delta_1$ , and administered a blood test for every patient that the doctor did  $\Delta_2$ .

159. a.  $\Delta_1$  = [<sub>VP</sub> give a flu shot to x]
- b.  $\Delta_2$  = [<sub>VP</sub> administer a blood test for x]

Definitely, the PF-ellipsis analysis cannot account for this data without some other additional mechanism. So, I will leave this data as an issue for future research. However, we need to notice that in the examples above we have a low level coordination because the conjuncts share the subject. The scope facts could be a consequence of that.

Therefore, more data need to be checked where conjuncts are clausal, i.e. do not share subjects.

### 11.3. *Same and Different*

A problem for the PF-ellipsis and MD analyses is RNR cases where the shared DP includes a relational modifier like ‘a different/the same’:

160. John hummed, and Mary sang, the same tune/a different tune.

(Sabbagh 2007: 370)

However, a non-RNR version of the same clause is illicit:

161. \*John hummed the same tune/a different tune, and Mary sang the same  
tune/a different tune.

(ibid., p. 370)

I will try to explain the grammaticality of (160) in contrast to (161). First, we need to notice that when the object in the first conjunct is a definite expression, (161) is OK:

162. John hummed the tune, and Mary sang the same tune/a different tune.



I will basically suggest that the identical element is interpreted as a definite description in RNR. In other words, I suggest that the elided material in the first conjunct is interpreted as a definite description in (160), as shown in (163):

163. John hummed ~~the tune~~, and Mary sang, the same tune/ a different tune.

There is already a semantic rule for this in the market:

164. In a structure formed by DP movement,  $DP_n[\varphi \dots DP_n \dots]$ , the derived sister of DP,  $\varphi$ , is interpreted as a function that maps an individual,  $x$ , to the meaning of  $\varphi[x/n]$ .  $\varphi[x/n]$  is the result of replacing the head of every constituent with the index  $n$  in  $\varphi$  with the head  $the_x$ , whose interpretation,  $[[the_x]]$ , is,  $\lambda P. [[the]] (P \cap \lambda y.y = x)$ .

(Fox 2003: 47)

This is an interpretive, therefore semantic rule. Its application is observed in the following examples:

165. a. Which boy mary visited which boy?

Paraphrase: Which boy is the boy,  $x$ , such that Mary visited **the boy  $x$** ?

b. every boy A girl talked to every boy.

Paraphrase: For every boy,  $x$ , there is a girl who talked to **the boy  $x$** .

(ibid., p. 45)

I will take a different context where this semantic rule can apply. Notice that the copy converted to a definite description is a copy in a Case position. In (165a), there is overt A'-movement, and the copy in a Case position is converted to a definite description; in (165b), there occurs QR, a covert operation, and again the copy in a Case position is converted to a definite description. In (165a), the copy in the Case position is unpronounced. So, a copy in a Case position determined to be unpronounced can be/is converted to a definite description. However, overt A'-movement is not the only context for a phrase in a Case position to be unpronounced. In an ellipsis structure, a phrase in a Case position is unpronounced without any overt A'-movement, as well. Therefore, I suggest, in ellipsis structures a phrase in a Case position can be converted into a definite description, as in RNR structures. In RNR structures as in (160) (repeated as (166)), the identical element in the first conjunct, marked for elision (non-pronunciation), is converted to a definite description in LF, as shown in (167). This explains why these structures are grammatical:

166. John hummed ~~the same tune/a different tune~~, and Mary sang, the same tune/a different tune.

167. John hummed *the tune*, and Mary sang, the same tune/a different tune.

However, similar structures are ungrammatical in German (168) and Turkish (169). So, the licitness of (160) seems to be a peculiar property of (RNR in) English rather than RNR in general:

168. \*Hans singt und Maria pfeift ein ähnliches Lied.  
sings and whistles a similar tune  
'Hans sings and Mary whistles a similar tune.'

(Hartmann 2000: 79)

169. \*Tarkan mırıldandı, Sezen Aksu söyledi, farklı bir şarkıyı/aynı şarkıyı.  
hummed said different a song same song  
'Tarkan hummed, and Sezen Aksu sang, a different song/the same song'

## 12. Conclusion

In this chapter, we have found some evidence from Turkish for PF-deletion analysis of RNR structures. The evidence is agreement facts and differences between what can be shared in complement clauses and matrix clauses in RNR structures. We have also seen that RNR is different from other elliptical structures in that deleted/shared material can be cross-clausal. This shows that PF-deletion in RNR applies at a later stage than it does in other elliptical structures.

## **CHAPTER 6: CONCLUSION**

In this study, we have looked at four elliptical structures in Turkish: sluicing, fragments, gapping and Right Node Raising. The main finding is that all these elliptical structures are derived by PF-deletion, which gives us a simpler view/version of the grammar and the generative theory of grammar. In the sluicing and fragments chapters, we have seen that these structures are island-insensitive in Turkish as in other languages, giving us a uniform picture with respect to derivation of these structures cross-linguistically. In the gapping chapter, we have seen that gapping is root phenomenon in Turkish, i.e. that a

matrix CP can be elided. In the RNR chapter, we have seen that unlike all the other elliptical structures analyzed in this study shared material (i.e. material deleted in the first conjunct) can be cross-clausal. This, I believe, shows that PF-deletion applies at a different level than it does in other elliptical structures. I suggest that when (licensing of) PF-deletion is computed, hierarchical representation exists in the representation, whereas the structure that is elided in RNR is a linear string of lexical blocks. Therefore, hierarchy and phrase structure does not exist in that representation. In this study, I also had to ignore a couple of issues such as why gapping and RNR is possible only in coordinate structures and what is the structure of coordination. This, I believe, is a good research agenda for the future.

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