THE NON-UNITY OF GAPPING

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ABSTRACT

The goal of this dissertation is to investigate the nature of the ellipsis phenomenon known as gapping where the verb (sometimes including its argument or adjuncts) is missing at PF but interpreted at LF, with the aim of understanding better how to derive the elided material shown in this ellipsis construction. More specifically, I will explore the hypothesis that gapping is not an illustration of one single phenomenon: there are indeed two types of gapping, and each type has different syntactic and prosodic properties. I will show first that previous approaches to gapping are not convincing and insufficient to account for both empirical data and theoretical aspects, primarily due to the homogeneous nature of their analyses, as well as some theoretical drawbacks from the derivation mechanism they use. And then I will propose a heterogeneous approach, according to which there will in fact be more than one derivation for gapping, and in so doing, we can appropriately distinguish one type of gapping from the other, as well as the different syntactic properties can be accounted for in a principled way. To support this proposal, I will investigate in depth both Spanish and Korean gapping, where we will be discussing in detail the different types of gapping sentences observed in these languages to claim that gapping is an epiphenomenon of more than one derivation, and the possibility of each derivation will depend crucially on the availability of syntactic operations (e.g. subject-verb agreement, etc.) in each one of the languages to be discussed in this dissertation.

A mis padres

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CHAPTER 1

INTRODUCTION

1.1. Gapping

Gapping is a term borrowed from Ross (1967), which refers to elliptical constructions like the one illustrated below in which the missing material consists of either only the verb (i.e. simple gaps) (1) or more than that (i.e. complex gaps) (2).[1] In gapping, the elements that appear to the left and to the right of the elided material in the second conjunct are called "remnants" and the corresponding elements in the first conjunct are called "correlates".

(1) a. Leslie bought a CD, and Robin Δ a book. (Δ=*bought*)

    b. Leslie talked to his boss on Tuesday, and Betsy Δ to her supervisor on Wednesday. (Δ=*talked*)

(Kubota and Levine 2016: 108-109)

(2) a. Leslie gave me a CD, and Robin Δ a book. (Δ=*gave me*)

    b. Leslie can go with me, and Robin Δ with you. (Δ=*can go*)

    c. Leslie always orders wine, and Robin Δ beer. (Δ=*always orders*)

    d. I want to try to begin to write a novel, and Mary Δ to review a play.

(Δ=*wants to try to begin*)

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[1] In this section, I will use the symbol Δ to represent the missing material, unless I need to specify it using other devices for independent reasons.

e.   I want to try to begin to write a novel, and Mary Δ to set out to review a play.

$(Δ=\textit{wants to try})$

f.   Robin put a dollar in the meter, and Leslie $Δ_1$ three quarters $Δ_2$.

$(Δ_1=\textit{put}, Δ_2=\textit{ in the meter})$

g.   Some Republicans want Ford to run for the Presidency, and others Δ Reagan Δ. $(Δ_1=\textit{want}, Δ_2=\textit{ to run for the Presidency})$

h.   Too many Irish setters are named Kelly, $Δ_1$ German shepherds $Δ_2$ Fritz, and $Δ_3$ huskies $Δ_4$ Nanook.

$(Δ_1=\textit{too many}, Δ_2=\textit{are named}, Δ_3=\textit{too many}, Δ_4=\textit{are named})$

As shown above, in the case of complex gaps, the missing material can be either continuous (2a-e) or discontinuous (2f-h), which does not form a constituent on the surface.

It is important to note that, although in both (1) and (2) the missing material is not pronounced at PF in the second conjunct, it is nonetheless interpreted at LF as part of the conjunct. For instance, the gapping sentences in (1) have the same LF-representation as (3).

(3)   a.   Leslie bought a CD, and Robin bought a book.

          b.   Leslie talked to his boss on Tuesday, and Betsy talked to her supervisor on Wednesday.

The same is true for the complex gaps illustrated in (2). In short, gapping is one of the many ellipsis constructions in natural language, which allows one single LF-representation to map onto two PF-representations; one is a reduced version of the other.

Gapping has been and is still being the object of much debate in the generative literature (Ross 1967, 1970, 1971; Hankamer 1971, 1979; Koutsoudas 1971; Jackendoff 1971, 1972: Maling 1972; Kuno 1976; Neijt 1979; Hudson 1976, 1982, 1989; Siegel 1984, 1987; Oehrle 1987; Chao 1988; Jayaseelan 1990; Steedman 1990; McCawley 1993; Johnson 1996/2004, 2009, 2014; Hartmann 2000; Lin 2000, 2001; Coppock 2001; Gengel 2007, 2013; Potter 2014; Frazier 2015; Toosarvandani 2015, 2016; Potter, Frazier, and Yoshida 2015, *to appear*, to name a few). This is because gapping presents many interesting features which different hypotheses try to capture in a principled way. In what follow I will

present some of them, but I limit myself to mention only the ones relevant to the generative literature since Chomsky (1957).[2]

The main challenge for theories of syntax is to explain how and under which conditions the elided material is derived in gapping where, as seen before, such material often does not qualify as a constituent at least on the surface. Thus, it is not so evident how one might provide an appropriate analysis of the material(s) that can be gapped. This is one of the properties of gapping which distinguishes it from other types of ellipsis phenomena such as VPE (4a) and sluicing (4b), where the ellipsis site is a constituent.

(4) a. Robin put a dollar in the meter, and Leslie did Δ too. (*VPE*)

              (Δ=*put a dollar in the meter*)

 b. Robin put something in the meter, but I don't know what Δ. (*Sluicing*)

              (Δ=*put in the meter*)

            (Modeled from Kubota and Levine 2016)

In the generative literature, there have been two main approaches to gapping when dealing with apparent non-constituent ellipsis site involved therein: namely deletion approach *vs.* non-deletion approach. The first approach (e.g. Jayaseelan 1990; Lin 2000, 2001; Coppock 2001; Gengel 2007, 2013; Toosarvandani 2015, 2016, etc.), on the one hand, considers that gapping is an instance of ellipsis in which, prior to the deletion process, the remnants of the ellipsis clause undergo movement out of a surrounding constituent, so that ellipsis targets a constituent. On the other hand, the second approach (e.g. Johnson 1996/2004, 2009) proposes that gapping is not ellipsis *per se* but the product of a special movement operation such as Across-The-Board (ATB). Under this approach, it does not matter the non-constituency on the ellipsis site because evacuating material out of the VP always creates a constituent to be ATB-moved. Even so, recently some authors like Potter (2014), Frazier (2015), and Potter, Frazier, and Yoshida (2015, *to appear*) put forward a heterogeneous approach where they claim that gapping in English is structurally ambiguous in that the configuration cannot be homogenous due to the different types of the gapping sentences, and therefore both approaches mentioned above should be equally needed to account for the heterogeneous status of English gapping.

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[2] This dissertation will not discuss other frameworks on ellipsis such as functional, relational, cognitive or constructional grammar, etc.

In short, the debate in the literature thus lies in identifying the gap; i.e. whether it is the trace of ATB-movement or the result of PF-deletion.

Bearing in mind the background set out above, let us consider now the properties of gapping as well as the directionality of gapping across languages.

1.1.1.   Properties of Gapping

The main property of gapping is that it is restricted to coordination (5a) and thus cannot appear in adjunct clauses (5b) (Ross 1967, 1970, 1971; Koutsoudas 1971; Jackendoff 1971, 1972; Hudson 1976, 1982, 1989; Hankamer 1971, 1979; Evers 1975; Neijt 1979; Rooryck 1985; Oirsouw 1985, 1987; Chao 1987, 1988; McCawley 1988; Steedman 1989, 1990, 2000; Jayaseelan 1990; Muadz 1991; te Velde 1997, 2005; Lobeck 1995, 1999, 2007; Johnson 1996/2004, 2009, 2014, a.o.).[3]

(5)   a.   Some ate beans, and others Δ rice.   (Δ=*ate*)

     b.   *Some ate beans, {because/if/when/although} others Δ rice.   (Δ=*ate*)

                                               (Johnson 2009: 407)

Notice that even if the gap appears in the matrix clause and its antecedent shows up in the adjunct clause, the resulting sentence is ungrammatical, as shown in (6a-b).

(6)   a.   *{Because/if/when/although} John drank tea, Mary Δ coffee.   (Δ=*drank*)

     b.   *Mary Δ tea, {because/if/when/although} John drank coffee.   (Δ=*drank*)

For English, it has also been noticed that gapping is subject to the "No-Embedding Constraint" (Hankamer 1979), according to which either the gap (7a) or its antecedent (7b) cannot appear in the embedded clauses.

(7)   a.   *Alfonse stole the emeralds, and I think that Mugsy Δ the pearls.   (Δ=*stole*)

     b.   *I think that Alfonse stole the emeralds, and Mugsy Δ the pearls.   (Δ=*stole*)

                                             (Hankamer 1979: 19, (23))

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[3] In this dissertation, I will not discuss instances of gapping observed in comparatives (see a.o. Lechner 2001; Reglero 2007, 2013).

Accordingly, a gapping example like (8) (from Steedman 2000) is unacceptable because it is nothing more than a combination of both the embedded gap and the embedded antecedent.

(8)   *I know that Dexter read Ulysses, and you say that Warren Δ Dr. Zhivago.

(Δ=*read*)

It is also worth mentioning that gapping is perfectly possible with passive conjuncts (9), whose importance for the analysis of gapping, however, has not been addressed in the previous literature and will be discussed in detail in chapter 3.

(9)   *Passive + passive*
Kennedy was shot by Lee Harvey Oswald, and Martin Luther King, Jr., Δ by an unknown sniper.[4]

(Δ= *was shot*)

As originally observed by Stump (1977), gapping is known to disallow voice mismatches between the conjuncts, as shown in (10).

(10) a.   *Passive + active*
        *Kennedy was shot by Lee Harvey Oswald, and an unknown sniper, Δ Martin
        Luther King, Jr.   (Δ=*shot*)
      b.   *Active + passive*
        *Lee Harvey Oswald shot Kennedy, and Martin Luther King, Jr., Δ by an unknown
        sniper   (Δ= *was shot*)

In the literature, this fact has been discussed particularly to show that, contrary to VPE, the elided portion in gapping does not contain the voice (phrase) (see a.o. Johnson 1996/2004; Merchant 2008; Citko 2012). As will be shown later, voice mismatches in gapping will be also naturally accounted for under my analysis of passive conjuncts.

Furthermore, there is no restriction on the clause-type of the conjuncts involved in gapping. That is, they can involve different illocutionary forces including interrogative and

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[4] This example is confirmed by native speakers to be grammatical (see also Jackendoff 1971). I thank Jeff Lidz and Tonia Bleam for giving me their judgements on this example when they stayed in Vitoria during 2014-2015.

imperative. For instance, like ordinary coordinate structures like (11a) and (12a), a *wh*-phrase can appear in gapping; e.g., in either subject position (11b) or object position (12b) of the interrogative conjunct. Similarly, gapping can involve imperative conjuncts, as shown in (13).

(11) a.   Who is the hunter and who is the prey?

      b.   Who is the hunter and who, Δ the prey?   (Δ= *is*)

(12) a.   What did Juan buy and what did Luis buy?

      b.   What did Juan buy, and what, Δ_1 Luis Δ_2?   (Δ_1= *did*, Δ_2= *buy*)

(13) Always eat slowly, never Δ noisily, and sometimes Δ modestly!   (Δ= *eat*)

                                                                                (Hudson 1989: 86, (60))

The relevance of examples like these has not been addressed in the previous literature and will be clarified in detail in chapter 3.

Finally, as noted by Hudson (1989), gapping can involve more than three conjuncts and in this case, we have various possibilities to elide material of the conjuncts, as shown in (14b-d).

(14) a.   Fred sat on a chair, Mary sat on a stool, and Bill sat on a bench.

      b.   Fred sat on a chair, Mary sat on a stool, and Bill Δ on a bench.   (Δ= *sat*)

      c.   Fred sat on a chair, Mary Δ on a stool, and Bill Δ on a bench.   (Δ= *sat*)

      d.   Fred sat on a chair, Mary Δ on a stool, and Bill sat on a bench.   (Δ= *sat*)

                                                                                (Hudson 1989: 63, (12))

Examples like these are naturally expected to be acceptable from the well-known property of coordination; i.e. there is no limit as to how many conjuncts can be involved in a coordinate structure, and the (un)acceptability of various conjuncts contained in gapping (or a regular coordinate structure) depends only on processing matters. In chapter 3, I will consider the relevance of the examples in (14) when discussing my analysis of gapping.

1.1.2.   Directionality of Gapping

It has long been known that the application of gapping differs from language to language. That is, head-initial (or SVO) languages like English and Spanish show forward gapping, where the gap appears in the second of the coordinated conjuncts (15), whereas head-final (or SOV) languages like Japanese and Korean display backward gapping in which the gap shows up in the first conjunct (16).

(15) a.   I ate fish and Bill Δ rice.   (*English*)

     a´.   *I Δ fish and Bill ate rice.

     b.   Yo comí pescado y Bill arroz.   (*Spanish*)

     b´.   *Yo Δ pescado y Bill comió arroz.

(16) a.   Na-nun sengsun-ul Δ, Bill-un   bap-ul   mek-ess-ta.   (*Korean*)

           I-TOP   fish-ACC   Bill-TOP rice-ACC eat-PAST-DEC

           'I (ate) fish and Bill ate rice'

     a´.   *Na-nun sengsun-ul mek-ess-ko, Bill-un   bap-ul   Δ.

           I-TOP   fish-ACC   eat-PAST-KO Bill-TOP rice-ACC

     b.   Watashi-wa sakana-o Δ, Biru-wa gohan-o tabeta.   (*Japanese*)

           I-TOP   fish-ACC   Bill-TOP rice-ACC eat-PAST-DEC

           'I (ate) fish and Bill ate rice'

     b´.   *Watashi-wa sakana-o tabeta,   Biru-wa gohan-o Δ.

            I-TOP   fish-ACC eat-PAST Bill-TOP rice-ACC

In early transformational generative grammar, Ross (1970) explains that this crosslinguistic variation is related to the Head Parameter; i.e. 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 the left branches, gapping operates forward. In contrast, if they are on the right branches, it operates backward (see also Jackendoff 1971 and Maling 1972).

However, there are some SOV languages such as Basque (Trask 1977; Hualde and Ortiz de Urbina 2003), Hindi (Koutsoudas 1971; Mahajan 2005), and Turkish (Bozsahin 2000; Ince 2009), where both forward gapping and backward gapping are known to be possible. For instance, as shown in (17), Basque allows both directions of the application

of gapping (Examples are taken from Trask 1977: 293, and the English translations are adapted from the author).

(17) a. Aitak ardoa edan du, eta nik sargadoa Δ. (*Basque*)
          father wine drink Aux.3sg and I   cider
          '(My) father drank wine and I (drank) cider'

      b. Aitak ardoa Δ, eta nik sargadoa edan {dut/ditugu/dugu}.[5]
          father wine and I cider drink Aux.1sg/Aux.1pl/Aux.1pl
          '(My) father (drank) wine and I drank cider'

For this type of counterexample, Ross suggests that if a language has SOV order in the surface structure and makes the gap forward, it has an underlying SVO order. He states that "the verbs start before their objects but after gapping has had a chance to apply forward, they are obligatorily moved to the end of their VP, where backward gapping will subsequently also be able to apply (Ross 1970: 257)". In this way, the author concludes that only strictly SOV languages have backward gapping as a unique option available in their grammars, and therefore languages like Basque, Hindi, and Turkish cannot be considered as strictly SOV. However, there is another exception to Ross' generalization on the directionality of gapping. As noted by Kazenin (2010), a strictly head-initial language like Russian allows both forward gapping and backward gapping.[6]

Thus, Ross' generalization is in a sense too strict to group all languages into only two standardized patterns of gapping; namely only forward or only backward gapping.

Concerning the head-directionality across languages, Polinsky (2012) identifies the following five sub-types.

(18) a. Rigid head-final languages (e.g. Japanese, Korean, and Tamil)

---

[5] Singular agreement in auxiliary is also acceptable for some native speakers from Gipuzkoa, with or without including object agreement marker on the verb (Trask 1977: 293). My informants from that region of the Basque Country fully accept the agreement patterns shown in (17b).

[6] Ross explains that the case of Russian can be accommodated "for if gapping is an anywhere rule, it will be able to apply before and after scrambling .... (Ross 1970: 844)". But this means that gapping applies in overt syntax before scrambling. Note that Ross himself assumes that scrambling must be syntactic in order to derive Russian SOV order in surface structure from SVO order in deep structure, so that forward gapping in Russian, according to Ross, must take place prior to syntactic scrambling. This explanation, however, suggests that there is a syntactic ellipsis rather than ellipsis at PF. In this dissertation, I will not discuss whether such kind of syntactic ellipsis exists (or not), and I will assume without further discussion that ellipsis takes place only at PF (and not in overt syntax) (see Baltin 2003 who argues that certain ellipsis can take place during the syntactic derivation).

    b.   Non-rigid head-final languages

                            (e.g. Avar, Basque, German, Latin, Persian, and Tsez)

    c.   Clearly head-initial languages

                            (e.g. Irish, Malagasy, Tongan, and most Mayan languages)

    d.   "SVO/head-initial" languages (e.g. Indonesian and Yucatec Mayan)

    e.   "SVO sundry"

                            (e.g. English, Russian, Romance languages, and Bantu languages)

This author makes a strong correlation between the type of the head-directionality of a language and the ratio of verbs to nouns in the lexical inventory. According to Polinsky, languages with a lack of simple verbs tend to be rigidly head-final, as in the case of Japanese and Korean, whereas rich agreement languages such as English, Spanish, and other similar languages tend to be head-initial.[7] If Polinsky's perspective on the head-directionality is on the right track, the fact that both Japanese and Korean exhibit only backward gapping may have something to do with the language's rigid verb-final status, whereas Spanish and English display only forward gapping due to the SVO as underlying order.[8] In this dissertation, it will be shown that gapping is not unitary phenomenon in two typologically different languages like Korean and Spanish, regardless of the directionality of gapping.

1.1.3.   Brief introduction to gapping in Spanish and Korean
1.1.3.1.   Spanish

Like many other languages, Spanish allows both simple (19a) and complex gaps (19b-f).

(19) a.   Juan compró un libro, y María, Δ un disco.   (Δ=*compró*)

        'Juan bought a book, and María ~~bought~~ a disk'

      b.   Juan me dio un libro, y María, Δ un disco.   (Δ=*me dio*)

        'Juan gave me a book, and María ~~gave me~~ a disk'

      c.   Juan puede ir conmigo, y María, Δ contigo.   (Δ=*puede ir*)

        'Juan can go with me, and María ~~can go~~ with you'

---

[7] However, this cannot be correct at least for a language like Basque, which has rich agreement but head-final, except certain elements in the CP-domain such as sentential negation.

[8] As mentioned before, Turkish is another exception for Polinsky's classification because it is strictly head-final and thus should be included in (18a), contrary to fact.

    d.   Juan siempre pide vino, y María Δ cerveza.   (Δ=*siempre pide*)

           'Juan always orders wine, and María ~~always orders~~ beer'

    e.   Juan quiere intentar empezar a escribir un artículo, y María, Δ una novela.

                                            (Δ=*quiere intentar empezar a escribir*)

           'Juan wants to try to start to write a paper and María ~~wants to try to start to write~~ a novel'

    f.   Juan quiere intentar empezar a escribir un artículo, y María, Δ a revisar

           una novela.   (Δ=*quiere intentar empezar*)

           'Juan wants to try to start to write a paper and María ~~wants to try to start~~ to review a novel'

It is also certainly true that gapping in Spanish cannot take place in adjunct clauses, as shown in (20).

(20) a.   *Juan compró un libro, porque María Δ un disco.   (Δ=*compró*)

           'Juan bought a book, because María ~~bought~~ a disk'

     b.   *Juan compró un libro cuando María Δ un disco   (Δ=*compró*)

           'Juan bought a book when María ~~bought~~ a disk'

     c.   ^{??}Juan va a comprar un libro si María Δ un disco   (Δ=*compra*)

           'Juan will buy a book if María ~~buys~~ a disk'

Apart from these features compatible with English (and many other languages), there are some other characteristics that differentiate Spanish gapping from English gapping.

    For instance, gapping in Spanish can involve three argument remnants, as shown in (21), which contrasts with English to a certain degree.[9]

---

[9] Hankamer (1979: 151, (35)) presents examples like (i) in which the object of each conjunct appears left-dislocated (The representations by traces are mine).

(i)   The beans$_i$, Harry cooked t$_i$, and the potatoes$_j$, Henry Δ.   (Δ= *cooked t$_j$*)

However, it is not clear whether in English, dislocation like (ii) is also acceptable in parallel with (i).

(ii)   a.   ^{?/??}To Mary, John gave a book, and to Susan, Peter Δ a disk.   (Δ= *gave*)
        b.   ^{??/*}A book, John gave to Mary, and a disk, Peter Δ to Susan.   (Δ= *gave*)

Larson (1988: 318) points out that the examples in (ii) are not grammatical in English (see also Jackendoff 1971 and Pesetsky1982 for the same claim). Similarly, native speakers who I have consulted do not consider (ii) as good as (i). Thus, it can be said that English gapping do not allow three argument remnants, contrary to what happens in Spanish.

(21) a. Juan le dio un libro a María, y Pedro, Δ un disco a Susana. (Δ=*le dio*)

'Juan gave a book to María, and Pedro ~~gave~~ a disk to Susana'

b. Juan le dio a María un libro, y Pedro, Δ a Susana un disco. (Δ=*le dio*)

'Juan gave Mary a book, and Pedro ~~gave~~ Susana a disk'

Examples like these clearly show that, contrary to English (Jackendoff 1971; Pesetsky 1982; Larson 1988), there is no restriction on the number of the remnants in Spanish gapping.

In addition, Spanish can also allow embedded gaps, as shown in (22); a fact which also contrasts with English.[10]

(22) Alfonso robó las esmeraldas, y (yo) creo que Musgy Δ las perlas. (Δ=*robó*)

(cf. *Alfonse stole the emeralds, and I think that Mugsy Δ the pearls)

---

[10] Brucart (1987) points out that in Spanish, a gapping example like (i) is ungrammatical by his judgment.

(i) *Luisa fue a la playa y Pedro me dijo que María, ___ a la montaña.
  Luisa went to the beach and Pedro to.me said that María   to the mountain
  'Luisa went to the beach and Pedro said to me that María went to the mountain"
  (Brucart 1987: 77, (16b))

He also provides the following set of examples, which shows that there seems to be a restriction on the types of the matrix verb that takes the second conjunct as complement (ii).

(ii) a. Luis estudió en Indiana y creo que Antonia, ___ en Edimburgo.
    Luis studied in Indiana and I.think that Antonia   in Edinburg
    'Luis studied in Indiana and I think that Antonia studied in Edinburg'
  b. ??Luis estudió en Indiana y su madre asegura que Antonia, ___ en Edimburgo.
    Luis studied in Indiana and his mother assures that Antonia   in Edinburg
    'Luis studied in Indiana and his mother assures that Antonia studied in Edinburg'
    (Brucart 1999: 2815)

However, according to my informants, the examples in (i) and (iib) are grammatical on a par with the one in (22a) (and (iia)). In any case, even if there is a difference between (iia) and (iib), what is important is that the former has the embedded gap, which is not possible in English gapping.

Silva (2014) notes that in European Portuguese, a gapping sentence like (iii) is grammatical but with the interpretive ambiguity between (iiia) and (iiib) (The example is taken from the author).

(iii) O João disse que convidava a Joana e o Pedro, ___ a Maria.
  the João said that would.invite to Joana y the Pedro   to Maria
  a. 'John$_i$ said that [he$_i$ would invite Joan and Peter would invite Mary]'
  b. 'John$_i$ said that [he$_i$ would invite Joan] and Peter$_j$ said that [he$_j$ would invite Mary].'

According to my informants, the Spanish counterpart of (iii) is perfectly grammatical. I have found native speakers who allow the second reading shown in (iiib), and most of those speakers inform me that the second interpretation is more salient than the first one. As will be shown in chapter 3, the existence of the long-distance reading suggests that examples like (iii) involve high-coordination, and not low-coordination.

This kind of example strongly shows that the "No-Embedding Constraint" observed in English gapping is not effective in a language like Spanish. In chapter 3, some implications of this result will be underlined, specifically for the proper analysis of Spanish gapping.

More interestingly, in fact gapping in Spanish is compatible with non-canonical word orders. In addition to the 'SVO & SO' order illustrated above, gapping in Spanish allows the 'OSV & OS' order in (23), which is frequently observed in this language. Similarly, the 'VSO & SO' order in (24) is also possible in Spanish, with either non-cumulative (24a) or cumulative agreement on the verb (24b).

(23)　a.　Los libros los　　compré yo, y　los discos mi hermano.
　　　　　the books CL.ACC bought I   and the disks my brother
　　　　　'The books, I bought, and the disks, my brother ~~bought~~'
　　　b.　Los libros los　　compré en Londres, y　los discos en Paris.
　　　　　the books CL.ACC bought in London and the disks   in Paris
　　　　　'The books, I bought in London, and the disks, ~~I bought~~ in Paris'

(24)　a.　Comió Juan una manzana, y　Luis una pera.
　　　　　ate.3.SG Juan an apple   and Luis a   pear
　　　　　'John ate an apples and Luis a pear'
　　　b.　Comieron Juan una manzana y　Luis una pera.
　　　　　ate.3.PL   Juan an apple   and Luis a   pear
　　　　　'John ate an apples and Luis a pear'

Examples of this kind have not been described in the literature; i.e. previous researches on Spanish gapping have discussed only the 'SVO & SO' pattern and thus the other possible patterns illustrated above (and their implications for the analysis of Spanish gapping) are completely disregarded. In chapter 3, these and other gapping patterns will be discussed in detail, and I will also account for some restrictions observed therein.

1.1.3.2.　Korean

As mentioned before, Korean is head-final and thus displays backward gapping.[11] Basically both simple and complex gaps are allowed in this language, as illustrated in (25) and (26), respectively.

(25)　a.　John-i　　chayk-ul　Δ, kuliko Mary-ka　　disk-lul　sa-ess-e.
　　　　　John-NOM book-ACC　　and　　Mary-NOM disk-ACC buy-PST-DEC
　　　　　'John ~~bought~~ a book and Mary bought a disk'

　　　　　　　　　　　　　　　　　　　　　(Δ=*sa*/*sa-ess-ko* 'buy/buy-PAST-KO')[12]

　　　b.　John-i　　Bill-eykey chayk-ul　Δ, kuliko Mary-ka　　Susan-eykey
　　　　　John-NOM Bill-DAT　book-ACC　　and　　Mary-NOM Susan-DAT
　　　　　disk-lul　cwu-ess-e.
　　　　　disk-ACC give-PST-DEC　　　(Δ=*cwu*/*cwu-ess-ko* 'give/give-PAST-KO')
　　　　　'John ~~gave~~ a book to Bill, and Mary gave a disk to Susan'

　　　c.　John-i　　na-wa　hamkey　Δ, kuliko Mary-ka　　ne-wa　hamkey
　　　　　John-NOM me-with　together　　and　　Mary-NOM you-with together
　　　　　ka-ess-e.
　　　　　go-PST-DEC　　　　　　　　(Δ=*ka*/*ka-ess-ko* 'go/go-PAST-KO')
　　　　　'John ~~went~~ with me, and Mary went with you'

(26)　a.　John-i　　wine-lul　Δ, kuliko Mary-ka　　mekcwu-lul hangsang
　　　　　John-NOM wine-ACC　　and　　Mary-NOM beer-ACC　　always
　　　　　siki-n-ta.
　　　　　order-PRES-DEC　　　　　(Δ=*hangsang siki-ko* 'always order-KO')
　　　　　'John ~~always orders~~ wine, and Mary always orders beer'

　　　b.　John-i　　Bill-eykey　Δ, kuliko Mary-ka　　Susan-eykey
　　　　　John-NOM Bill-DAT　　　and　　Mary-NOM Susan-DAT
　　　　　disk-lul　cwu-ess-e.
　　　　　disk-ACC give-PST-DEC
　　　　　　　　　(Δ=*chayk-ul cwu*/*cwu-ess-ko* 'give/give-PAST-KO a book')
　　　　　'John ~~gave a book~~ to Bill, and Mary gave a disk to Susan'

---

[11] See however Jung (2016b) where he describes and discusses some apparent forward gapping in Korean.
[12] The presence of the morpheme *-ko* is obligatory in any Korean clausal coordinate structure; e.g., at the end of the first conjunct's verbal complex. However, as illustrated above, this morpheme is missing in gapping. In chapter 4, I will discuss the nature of the morpheme *-ko* and related issues in detail.

c. John-i   Bill-eykey Δ_1 Δ_2, kuliko Mary-ka   Susan-eykey ecey

John-NOM Bill-DAT   and   Mary-NOM Susan-DAT   yesterday

disk-lul   cwu-ess-e.

disk-ACC give-PST-DEC

(Δ_1=*ecey* 'yesterday', Δ_2=*chayk-ul cwu/cwu-ess-ko* 'give/give-PAST-KO a book')

'John ~~gave a book~~ to Bill ~~yesterday~~, and Mary gave a disk to Susan yesterday'

Gapping in Korean also allows a non-canonical word order like 'OSV & OS' (e.g. by scrambling), as illustrated in (27).

(27) a. Bill-eykey, John-i   chayk-ul Δ, kuliko Susan-eykey, Mary-ka

Bill-DAT   John-NOM book-ACC   and   Susan-DAT   Mary-NOM

disk-lul   cwu-ess-ta.

disk-ACC give-PAST-DEC   (Δ=*cwu/cwu-ess-ko* 'give/give-PAST-KO')

'To Bill, John ~~gave~~ a book, and to Susan, Mary gave a disk'

b. Chayk-ul, John-i   Bill-eykey Δ, kuliko disk-lul, Mary-ka

book-ACC John-NOM Bill-DAT   and   disk-ACC Mary-NOM

Susan-eykey cwu-ess-ta.

Susan-DAT   give-PAST-DEC   (Δ=*cwu/cwu-ess-ko* 'give/give-PAST-KO')

'A book, John ~~gave~~ to Bill, and a disk, Mary gave to Susan'

In addition, like other languages mentioned above, gapping in Korean cannot occur in adjunct clauses, as shown in (28).

(28) a *John-i   pang-ul Δ, Mary-ka   bap-ul   mek-e-se.

John-NOM bread-ACC   Mary-NOM rice-ACC eat-PAST-because

'John ~~ate~~ bread, because Mary ate rice'

b. *John-i   pang-ul Δ, Mary-ka   bap-ul   mek-un-huye.

John-NOM bread-ACC   Mary-NOM rice-ACC eat-NML-after

'John ~~ate~~ bread, after Mary ate rice'

Furthermore, similar to what happens in Spanish, gapping in Korean is not subject to the "No-Embedding Constraint". For instance, the antecedent of the missing material can show up in an embedded clause, as can be seen in (29).

(29) John-i   sakwa-lul Δ, kuliko na-nun Mary-ka   orange-lul   mek-ess-ta-ko

      John-NOM apple-ACC   and   I-TOP   Mary-NOM orange-ACC eat-PAST-DEC-that

      sangkakha-e.

      think-DEC   (Δ=*mek*/*mek-ess-ko* 'eat/eat-PAST-KO')

      'John ~~ate~~ an apple, and I think that Mary ate an orange'

Examples of this sort (and their implications for the analysis of Korean gapping) have not
been addressed in the literature. In chapter 4, I will discuss this kind of data in detail.

1.2. The goal of this dissertation

In this dissertation, I will mainly argue that gapping is not an illustration of one single
phenomenon. Specifically, I will show that there are essentially two types of gapping, and
each type has a different derivation with different syntactic properties, which also interact
in some way with the prosody of the coordinate structure involved in gapping. In order to
do this, I will explore a heterogeneous approach to gapping which makes us available to
appropriately distinguish one type of gapping from the other, as well as to account for both
empirical data and theoretical aspects in a principled way. More concretely, I will propose
that one type of gapping involves high-coordination and thus must be derived invariably
by PF-deletion, whereas the other type of gapping involves low-coordination, which, I will
argue, can be either the result of PF-deletion or the product of ATB-movement, whose
availability will depend crucially on the rich agreement on the verb (or lack thereof) of the
languages to be discussed in this dissertation. To support this proposal, I will carry out an
in-depth investigation of both Spanish and Korean gapping, wherein I will be discussing
carefully different instances of gapping observed in these two languages.

In this dissertation, the proposals will be carried out following Minimalist Program
(Chomsky 1991, 1993, 1995), the latest version of the Principle & Parameter framework
since Chomsky (1981). The theoretical aspects which are important for my discussions will
be introduced in relevant sections.

The dissertation is organized as follows. In chapter 2, I will critically review previous
analyses of gapping. In chapter 3, I will discuss Spanish gapping in detail, showing that the
hypothesis on the non-unity of gapping is on the right track not only empirically but also
theoretically. Chapter 4 will be an extension of my proposal to Korean where I will show

that gapping in this language has also more than one derivation, confirming therefore the aforementioned hypothesis. The conclusions follow in chapter 5.

CHAPTER 2

PREVIOUS ANALYSES OF GAPPING

In this chapter I will be critically reviewing the existing accounts of gapping in the literature, mainly concentrating on deletion analyses (§ 2.1), and non-deletion analyses (§ 2.2) such as Across-The-Board-movement, sideward movement, and Parallel Merge.

2.1. Deletion analyses

Within this type of analysis, there are two variants depending on what portion of the syntactic structure is elided; namely TP-deletion *vs*. VP-deletion. Some authors consider that gapping is an instance of ellipsis of the TP-layer, whereas others analyze it as an illustration of VP-Ellipsis (VPE) that occurs in low-coordination (e.g. VP/vP-coordination).

2.1.1. Gapping as TP-deletion under high-coordination

In the literature, some researchers such as Kuno (1973, 1976, 1981), Sag (1976), Larson (1981), Pesetsky (1982), and Jayaseelan (1990), a.o., argue that gapping is the result of deleting the phrase containing the verb (and sometimes including its arguments (or adjuncts)). For example, Jayaseelan (1990), who was inspired by Kuno (1981), proposes that the gapping sentence in (1) involves movement of the remnants followed by IP-deletion,

as illustrated in (2) (For presentational purposes, I have adapted Jayaseelan's "S-node" by IP).

(1)   John loves Mary, and Bill Δ Jane.   (Δ=*loves*)

(2)

```
                              IP
                   _____|_____
                  IP          and          IP
                 /  \                      /  \
            John_i   IP              Bill_i    IP
                    /  \                       /  \
                  IP   Mary_j                I̶P̶   Jane_j
                 /  \                       /  \
               t_i   I´                   t̶_i̶   I̶´̶
                    /  \                        /  \
                   I    vP                     I̶    v̶P̶
                       /  \                         /  \
                     VP    t_j                    V̶P̶    t̶_j̶
                    /  \                          /  \
                   V    t_j                      V̶    t̶_j̶
                   |                              |
                 loves                         l̶o̶v̶e̶s̶
```
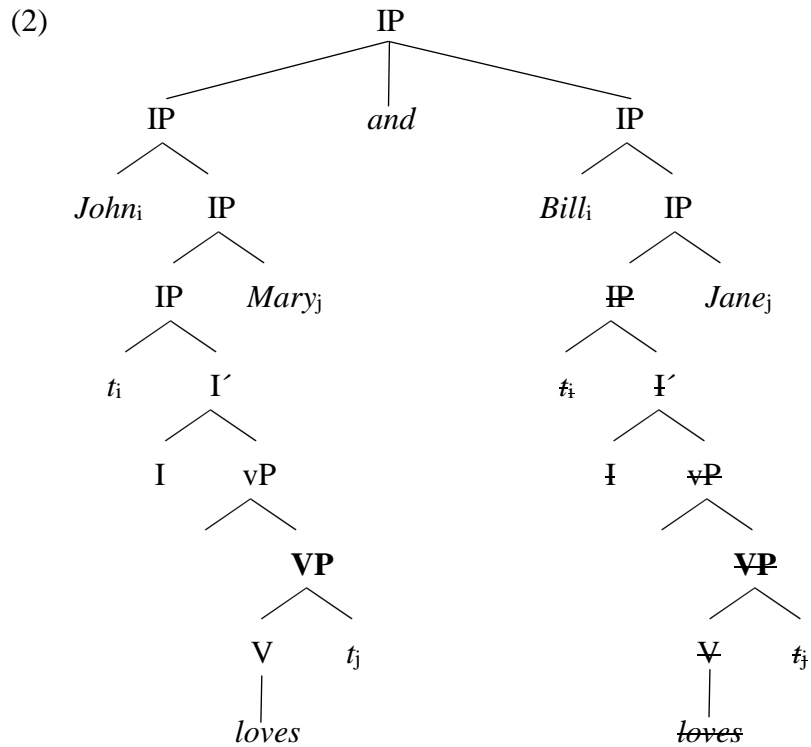
(Adapted from Jayaseelan 1990: 74, (31))

This author argues that in both conjuncts of gapping, the subject undergoes leftward adjunction to the outermost IP, whereas the object undergoes rightward adjunction to the to the outermost IP. According to Jayaseelan, rightward movement of the object DPs in (2) is similar to Heavy NP-Shift (HNPS) in English, where it is known that the whole PP can (3a), but its complement cannot be displaced at the right-peripheral position (3b).

(3)   a.   John counted t_i for support [PP on a total stranger]$_i$.
       b.   *John counted [PP on t_i] for support [DP a total stranger]$_i$.

(Jayaseelan 1990: 67, (7b-c))

He provides examples like (4), showing that in gapping as well, the object of a preposition cannot, but the entire PP can be the target of rightward movement (prior to IP-deletion).

(4) a. John depends on his wife, and Bill depends on his secretary.

    b. *John depends on his wife, and Bill Δ his secretary.   (Δ= *depends on*)

    c. John depends on his wife, and Bill Δ on his secretary.   (Δ=*depends*)

                                              (Jayaseelan 1990: 74, (32))

Following Stowell's (1981) "Adjunction Rule",[13] Jayaseelan also argues that only one argument of the VP can be the remnant constituent in English gapping (5). He calls this "Double Adjunction Constraint" by which only one constituent can be right-adjoined to the IP (see also Jackendoff 1971; Kuno 1976; Larson 1981; Pesetsky 1982 for similar claims).

(5)   *John gave a dime to Mary, and Bill Δ a nickel to Jane.   (Δ=*gave*)

                                            (Jayaseelan 1990: 74, (33))

Examples like (6) also confirm such restriction on the number of the remnants in gapping.[14]

(6) a. *Alan gave Sandy a book, and Peter Δ Besty a magazine.   (Δ=*gave*)

    b. *Arizona elected Goldwater Senator, and Massachusetts Δ McCormack

       Congressman.   (Δ=*elected*)

                                            (Sag 1976: 144, (20))

---

[13] This transformation rule is schematized as follows.

(i)   X′→ X′ YP

[14] The following example taken from Kubota and Levine (2016: 109, fn2) (originally from Sag 1976) shows against the restriction in question.

(i)   Leslie talked to his boss on Tuesday, and Betsy Δ to her supervisor on Wednesday.   (Δ=*talked*)

However, examples like (i) cannot refute the argumentation of the text because the temporal PP (i.e. *on Wednesday*) is not a constituent of the VP (but of TP), as illustrated in (ii).

(ii)   Leslie talked to his boss on Tuesday, and [$_{TP}$ Betsy [~~$_{VP}$ talked t_i~~] to her supervisor] on Wednesday].

Notice that this representation, if it is correct, indicates that gapping involves a high-coordination which provides places for temporal adverbials and complies with Jayaseelan's claim because the only remnant extracted out of the VP is *to her supervisor*, excluding the PP *on Wednesday*. Thus, the constraint observed in (5) can be maintained as such. In the earlier generative grammar, Jackendoff (1971) describes this fact as "with a complement NP-PP, sentences with gapped verbs are rather poor if the PP is strictly subcategorized by the verb, somewhat better if the PP is not strictly subcategorized (Jackendoff 1971: 26)". Nevertheless, as will be seen in chapter 3, this restriction holds only for English; viz., other languages do not have it.

Recently, Gengel (2007, 2013) also proposes that gapping is an instance of clausal ellipsis and thus can be included into the variety of ellipsis constructions involving the deletion of the TP-layer, such as sluicing and FAs.[15] In particular, she adopts Merchant's (1999, 2001) [E]-feature-based analysis in which the functional head X° bears the [E]-feature that instructs its complement YP to be deleted at PF, as illustrated in (7).

(7)   …   X°[E] [YP …]

Gengel assumes that in gapping, the [E]-feature is placed on the complementizer (C°), which allows deleting its complement TP.[16] To put it more concretely, she claims that "if there is a strong parallel between gapping and sluicing, we could alternatively assume that the [E]-feature is placed on the Foc° above the TP-layer, thus triggering deletion of its complement (i.e. TP), similar to the Foc° licensing FAs, and, of course, pseudogapping on the VP-level (Gengel 2013: 159)". In addition, the author assumes that gapping involves particularly a sort of topic-focus structure (suggested by Gergel, Gengel and Winkler 2007). According to Gengel, this information structure can fit in well with the Split-CP structure (Rizzi 1997) in (8).

(8)   ForceP . . . TopP . . . FocP . . . FinP

(Rizzi 1997: 288)

---

[15] Gengel (2013) is basically based on her dissertation defended in 2007.

[16] A note on this premise is the following: it should be better saying that a part of the Split-CP is the licensing head that bears the [E]-feature. Consider for example (i).

(i)   *John said that Mary is intelligent, and Luis said that Susan __ too.
       (cf. John said that Mary is intelligent, and Luis said that Susan does too)

This is an instance of embedded stripping, which is not acceptable in English (see Wurmbrand *to appear*). The issue is that, if we assume that the complementizer *that* of the second conjunct bears the [E]-feature, (i) should be allowed as an instance of TP-deletion (fed by prior movement of the remnants), contrary to fact. In addition, if (i) were somehow acceptable as such, then, the licensing head of TP-deletion in question could not be the complementizer *that* itself, but another functional head below it; e.g. one might suggest that such functional head could be Foc° at the low-periphery. In a language like Spanish, however, the striping sentence equivalent to (i) is perfectly grammatical (ii).

(ii)   Juan dijo que María es inteligente, y Luis dijo que Susana ___ también.

As will be shown in chapter 3, in languages like Spanish, embedded gapping is perfectly possible, contrary to what happened in English. Thus, we can say that English somehow behaves differently from Spanish with respect to licensing environments of gapping (and stripping).

With these two premises, Gengel proposes that a gapping sentence like (9) is derived by PF-deletion, as illustrated in (10).

(9)   Claire read a book, and Heather Δ a magazine.   (Δ=*read*)

<div align="right">(Gengel 2013: 159, (46))</div>

(10)   …   TopP
                 /\
         *Heather*₂   Top´
                      /\
                  Top   FocP
                         /\
                *a magazine*₁   Foc´
                                /\
                           Foc[E]   ~~TP~~
                                    /\
                               ~~t₂~~   ~~T´~~
                                        /\
                                   ~~T~~   ~~vP~~
                                          /\
                                       ~~… read t₄~~
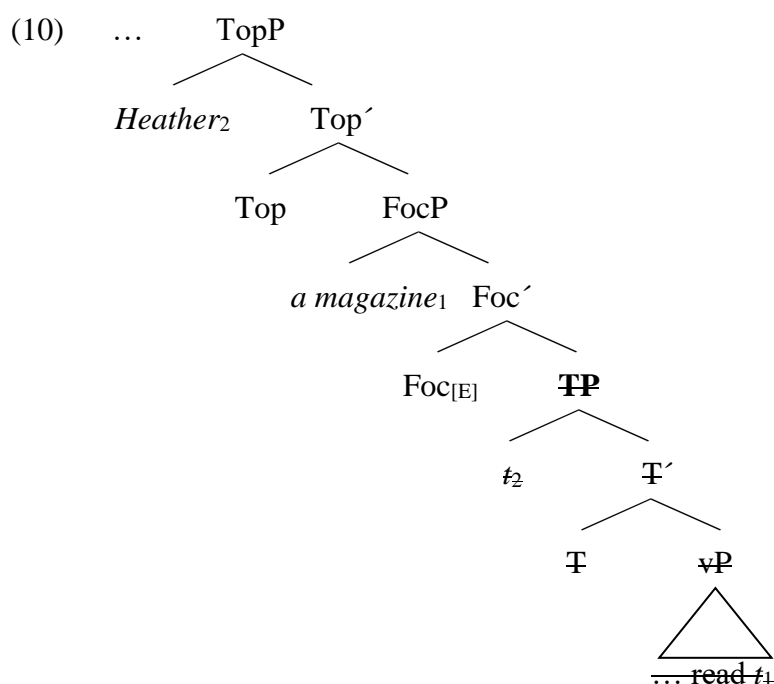
<div align="right">(Gengel 2013: 161, (52))</div>

In (10), she suggests that the subject and the object remnants undergo movement to the peripheral positions in the extended C-domain; namely [Spec,TopP] and [Spec,FocP], respectively. To be concrete, this author proposes that the object remnant undergoes long-distance A'-movement, which is driven by (a feature of) Focº, much like regular *wh*-movement triggered by *wh*-feature of Cº. As for subject movement to [Spec,TopP], Gengel states that "if the subject is focused, however, permitting a contrastive topic interpretation, it has to vacate the TP in (10) and will move up to [Spec,TopP] above the FocP. To preserve the surface word order between the subject and the object, I assume that they move in a parallel fashion, thus not interfering with respect to their final landing sites. Moreover, as the subject moves to [Spec,TP] in a usual fashion, e.g. via A-movement, subject movement and object movement do not interfere (Gengel 2013: 160)". In this respect, we can say that the gist of Gengel' analysis of gapping-as-TP-deletion is largely motivated by information-structure reasons. In any case, Gengel's analysis is to a large extent a modern minimalist

version of IP-deletion originally proposed by Jayaseelan (1990), with a subtle difference in that in her analysis, the object remnant does not undergo rightward adjunction but feature-driven leftward movement.

At the start, this kind of TP (or IP)-deletion analysis provides a way to distinguish gapping (11a) from other ellipsis constructions such as VPE and pseudogapping (11b),

(11) a. *Gapping* by IP/TP-deletion
      b. *VPE/Pseudogapping* by VP/vP-deletion

so this structural difference in ellipsis sites might be the reason why in certain aspects, gapping behaves differently from VPE and pseudogapping.[17]

In addition, it is worth noting that, although Gengel (2007, 2013) does not discuss any instance of complex gaps, her analysis in (10), which involves leftward movement of the remnants followed by TP-deletion, can easily account for data like (12).

(12) a. Some have served mussels to Mary and others ~~have served mussels~~ to Anne.
      b. Some have served mussels to Mary and others ~~have served~~ swordfish ~~to Mary.~~

Under Gengel's analysis, the remnants of the second conjunct are leftward moved out of the TP, after which deletion applies to the whole TP containing the traces of the remnants. In this fashion, although the sentence in (12b) involves a discontinuous gap, movement of the remnants illustrated in (13) makes allowing deletion of the constituent (i.e. TP).

(13) … [$_{TopP}$ *others*$_i$ [$_{FocP}$ *swordfish*$_j$ [$_{TP}$ ~~*t*$_i$ *have served t*$_j$ *to Mary*~~]]].

---

[17] Note however that in fact, Johnson's ATB-movement analysis also differentiates gapping from VPE and pseudogapping; the former is the product of special movement, whereas the latter is the result of ellipsis (see § 2.2). In the literature, Saab (2009: 236) notes that an analysis of gapping by TP-deletion can easily explain why the tense specifications of both conjuncts must be identical to each other (i).

(i)   *John ate apples yesterday and Mary ~~will eat rice~~ tomorrow.

According to Saab, since the TP is what goes to be elided at PF, there must be a sort of identity condition applied to the TP-domain. For example, if the tense specification of the TP in the ellipsis clause is not identical to the one of the TP in the antecedent clause; i.e. *ate* ≠ *will eat*, then, deletion is not possible in (i). In fact, this argument is not exclusive to the TP-deletion analysis. For example, Johnson's ATB-movement analysis also predicts that the tense specification of both conjuncts must be the same; e.g., due to the single T° above the vP-coordination (see § 3.3.1).

Note that Jayaseelan's analysis (cf. (2)), by contrast, cannot account for certain instances of discontinuous gaps. I have observed that a gapping example like (14) cannot be analyzed in the way illustrated in (2).

(14)   Some gave albums to their spouses, and others ___ tapes___.

This is because his analysis assumes that both the object remnant and its correlate undergo rightward adjunction. Thus, under this analysis, we would have the illicit representation in (15) for the first conjunct of (14).

(15)   *Some gave t_i to their spouses albums$_i$ …

What is more, the subsequent PF-deletion does not provide the sentence in (14) but the illicit output in (16).

(16)   *Some gave to their spouses albums, and others ~~gave to their spouses~~ tapes.

Thus, contrary to expectations from Jayaseelan's analysis, there is no viable way to derive the sentence in (14) in terms of rightward adjunction followed by TP/IP-deletion.

Concerning Gengel's proposal on subject and object movements to the CP-domain, notice that her analysis may elucidate why the two conjuncts of gapping require two distinct subjects. This is because, according to her analysis in (10), the particular topic-focus structure is responsible to set gapping (17a) apart from VPE (17b) and pseudogapping (17c) where the subject of the ellipsis clause can be co-referential with the one of the antecedent clause.

(17)   a.   *Robin$_i$ likes rutabagas, and she$_i$ lima beans.
       b.   John$_i$ didn't do homework, because he$_i$ didn't want to.
       c.   Robin$_i$ likes rutabagas, but she$_i$ doesn't lima bean.

(Agbayani and Zoerner 2004: 198, (32), (33))

In this way, the non-coreferential subjects would be naturally expected without having recourse to binding theory because, in line with Gengel's analysis shown in (10), the subject of the second conjunct bears the (contrastive) [topic]-feature that triggers feature-driven

movement to [Spec,TopP]. Thus, if there are coreferential subjects in gapping, they fail to be contrastive (topics); e.g., in (17a), *Robin*$_i$ of the first conjunct and *she*$_i$ of the second could never be in a contrastiveness relation.[18]

However, there are some problems in any kind of IP/TP-deletion analysis of gapping.

On empirical grounds, this kind of analysis cannot account for scope facts in gapping (Oehrle 1987; Oirsouw 1987; Siegel 1984, 1987; McCawley 1993; Johnson 1996/2004, 2009, 2014). For instance, the clausal negation *not*, which appears only in the first conjunct, can scope over the whole coordination, as shown in (18).

(18)   Ward can't eat caviar and his guest ___ beans.

   (i) 'Ward can't eat caviar and his guest can't eat beans'

   (ii) 'It is not possible for Ward to eat caviar and his guest eat beans'

<div align="right">(Siegel 1987: 53, (3))</div>

That is, the wide-scope interpretation in (18ii) is totally unexpected from high-coordination approaches to gapping.[19,20]

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[18] As will be shown later, Agbayani and Zoerner (2004) attribute this fact to Principle B of binding theory; gapping involves vP-conjuncts under their analysis and thus does not provide an appropriate binding domain (assuming TP is the relevant binding domain for Principle B).

[19] In the literature, scope facts have been considered as argument in support of the low-coordination involved in gapping (see Oehrle 1987; Oirsouw 1987; Siegel 1984, 1987; McCawley 1993, a.o.). If the example in (18) involves low-coordination, the wide-scope reading is naturally expected. At this point, it is worth mentioning that in fact, as noted by Siegel (1984, 1987), another interpretation shown in (18i) is also possible in gapping. According to this author, such reading comes from the circumstance where both the auxiliary and the negation *can't* have been removed or deleted, along with the lexical verb *eat* that follows. This suggestion, though it does not receive much attention so far, seems to imply in certain senses that English gapping could involve either low-coordination for (18ii) or high-coordination for (18i). Johnson (2009) also acknowledges this fact, though he does not explain it further. Recently, some authors like Potter (2014), Frazier (2015), and Potter, Frazier, and Yoshida (2015, *to appear*) pay much attention to this matter, suggesting that in some way, both high-coordination and low-coordination are required to explain certain empirical data. As will be seen later (in chapter 3), scope facts are crucial starting point of my proposal on Spanish and Korean gapping.

[20] Johnson (2014: 27) mentions that indeed a gapping sentence like (18) can be understood as an appropriate answer to the question *What can't Ward eat, and what can't his guests eat?* where both the auxiliary *can* and the negation *not* must be included in each coordinate. As regards the status of gapping as a potential answer to (some) *wh*-questions, Kuno (1973, 1976) shows that the acceptability of gapping is crucially dependent upon discourse contexts, suggesting that any instance of gapping has an implicit *wh*-question (The examples are taken from the author and the symbol Δ is mine).

(i)   a.   Harry went to London, and Barry, Δ Detroit.   (Δ= *went to*)
      b.   Which city did each man go to?

The sentence in (ia), for example, is acceptable when preceded by a sentence establishing appropriate topics, presuppositions, and open propositions, such as (ib). Indeed, even the most basic gapping sentence like (iia) is only felicitous in contexts, where the presupposition under discussion is something like (iib).

(ii)   a.   Fred ate bread, and Harry, Δ bananas.   (Δ = *ate*)

For a similar reason; i.e. given the high-coordination involved in (2) (or (10)), it is not possible to explain why the subject of the second conjunct can bear ACC Case (19).

(19)   She ate the beans and him$_{ACC}$ ___ the rice.

This is because in English, a finite T° never assigns ACC Case, and therefore there is no feasible way to explain the ACC Case-marked subject of the second conjunct in (19).[21]

Furthermore, the TP-deletion analysis faces difficulties when analyzing the complex gaps of the sort illustrated in (20) where, as Ross (1970) observes, different chunks of the verbal complex can be omitted.[22]

(20)   a.   I want to try to begin to write a novel and Mary ~~wants to try to begin~~ to review a play.

        b.   I want to try to begin to write a novel, and Mary ~~wants to try~~ to set out to review a play.

        c.   I want to try to begin to write a novel, and Mary ~~wants~~ to get ready to set out to review a play.

---

        b.   Who ate what?

[21] Notice that both (2) and (10) do not have unusual (defective) environments where ACC Case on the subject of the second conjunct can be default. That is, default Case basically appears when a DP cannot get Case through normal syntactic mechanisms (Schütze 2001), e.g. the Agree relation between T° and the subject DP. Schütze identifies the following five environments in English where ACC pronouns can occur in the subject position (i)

(i)   a.   Left dislocation (e.g. *Me*, I like beans).
       b.   FAs (e.g. Q: Who wants to try this game? A: *Me*!).
       c.   Gapping (e.g. She grew up in Jacksonville, and *me*, in Tallahassee).
       d.   Modified pronouns (e.g. The real *me* is finally emerging).
       e.   Coordination (e.g. *Me* and *him* are gonna rumble tonight).

The high-coordination involved in (2) and (10) suspects that in (16) the ACC Case on the subject DP could be default because the second conjunct has its own Case-assigner T°, and thus the subject of that conjunct must always bear NOM Case, contrary to fact

[22] Ross' original examples are given in (i).

(i)   a.   I want to try to begin to write a novel and Mary ~~wants to try to begin to write~~ a play.
       b.   ?I want to try to begin to write a novel and Mary ~~wants to try to begin~~ to write a play.
       c.   ?I want to try to begin to write a novel and Mary ~~wants to try~~ to begin to write a play.
       d.   ?I want to try to begin to write a novel and Mary ~~wants~~ to try to begin to write a play.

(Ross 1970: 250, (2c))

Johnson (2014) states that "there is a sharp degradation in these particular examples that favors the option in (ia) over the others. I suspect this is because in (ib-c), there is a material left behind by gapping that matches material in the antecedent clause; in the general cases, these remnants must contrast with parallel terms in the antecedent clause (Johnson 2014: 2)". If this is fixed out, the resulting sentence is improved, as in (20).

Under that kind of analysis, there is no alternative but to suggest that in (20b), for example, the whole infinitival remnant *[TP to set out to review a play]* undergoes leftward movement to [Spec,FocP] prior to PF-deletion, as illustrated in (21).

(21)   … [TopP *Mary*i [FocP [*to set out to review a play*]j [TP *ti wants to try tj*]]]

However, this kind of movement of the infinitival chunk(s) to the TP-layer (below the subject position) is not possible in non-elliptical contexts, as shown in (22).[23]

(22)   a.   *Mary, [to set out to review a play]i wants to try *t*i.
       b.   *[to set out to review a play]i Mary wants to try *t*i.

This result is expected if Kubota and Levine (2016), a.o., are right in noticing that in general such kind of dislocation is not possible in English, as shown in (23).

(23)   a.   *I thought [to Robin]i that we would write a letter *t*i.
       b.   *I had [to Robin]i thought that we would write a letter *t*i.

                                                          (Kubota and Levine 2016: 124: 35(b-c))

Thus, Gengel's analysis (in (10)) must state that in this case deletion is somehow obligatory, as illustrated below for the example in (20b).[24]

(24)   …   [TopP *Mary*i [FocP [*to set out to review a play*]j (*[TP *ti wants to try tj*])]]

However, this is obviously a straightforward type of look-ahead problem: why does movement of something feed deletion (of the other)? Remember that the TP-deletion analysis essentially argues that gapping is an instance of ellipsis; an optional phenomenon

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[23] My informants confirm to me that the sentences in (22) are totally ungrammatical.

[24] By contrast, Jayaseelan's analysis (cf. (2)) may not encounter this kind of problem because he suggests that the second remnant (i.e. the infinitival clause) undergoes rightward (rather than leftward) adjunction, which creates string vacuity; on the surface, there is no difference between gapping and its non-elliptical counterpart. Nevertheless, we have seen before that Jayaseelan's analysis cannot account for discontinuous gaps precisely because of rightward adjunction of the remnant and its correlate.

of natural language. Remember that, as mentioned in chapter 1, a gapping sentence and its non-elliptical counterpart are two PF-representation of one LF-interpretation. In this respect, such analysis with obligatory deletion seems to be highly artificial after all.

As for movement of the remnants to [Spec,TopP] and [Spec,FocP], respectively (cf. (10)), notice that in reality the object remnant *a magazine* and its correlate *a book* are (or can be) in a contrastive focus relation, even though the latter stays in situ (i.e. [Compl,VP]) and the former has moved out of its original position and then located in [Spec,FocP] (25).

(25)   [TP CLAIRE**CT** [VP read A BOOK**CF**], and [TopP HEATHER**CT** [FocP A MAGAZINE**CF**]]

(Modeled by Gengel's (10))

The same can be said for the subject remnant *Claire* and its correlate *Heather*; i.e. the former is situated in [Spec,TopP] and the latter is assumed to be found in [Spec,TP]. Thus, in a configuration like (25) the contrastive topic and contrastive focus interpretations of the correlates do not obtain directly from the syntactic positions where they appear.[25]

Relating to the previous observation, the minimal pair shown in (26) suggests that in fact the second remnant *his grandmother* is not leftward-moved; if it were as in (27), then there would be no obvious reason to ban on producing a resulting output like (26a).

(26)   a.   *John visited his mother on Friday, and Bill ___ his grandmother ___.
       b.   John visited on Friday his mother, and Bill ___ ___ his grandmother.

(27)   …   [TopP *Bill*ᵢ [FocP *his grandmother*ⱼ [TP *t*ᵢ *visited t*ⱼ *on Friday*]]]

Put differently, under Gengel's analysis, the sentence in (26a) would involve leftward movement of the remnants followed by TP-deletion and should be acceptable on a par with (26b), contrary to fact.[26]

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[25] In general, the contrastiveness itself does not require any movement, as far as I know.

[26] In contrast, Jayaseelan's analysis of gapping with rightward movement of the object remnant correctly predicts that (26a) is not possible, in comparison with (26b), which is assumed to have the adjunction of *his grandmother* to the right of the PP *on Friday*. But this kind of analysis wrongly predicts that an instance of gapping like (i), analyzed as (ii), should be grammatical, contrary to fact.

(i)   *Some gave to their spouses albums, and others tapes.

(ii) [IP Someᵢ [IP [IP *t*ᵢ gave *t*ⱼ to their spouses] albumsⱼ]], and [IP othersₖ [IP [IP *t*ₖ gave *t*q to their spouses] tapesq]]

Another potential problem of Gengel's analysis is that topic and focus movements do not properly work for cases where gapping involves fronted/topicalized elements (28).

(28) a. The beans, Harry cooked and the potatoes, Henry ___.

(Hankamer 1979: 151, (35))

      b. Caviar, James can't eat and chili, Mary ___.

(Potter 2014: 8, (19))

      c. At our house we play poker, and at Betsy's house, ___ bridge.

      d. Yesterday we went to the movies, and last Thursday, ___ to the circus.

(Sag 1976: 265)

      e. Tweedledee, I intend to argue with ___, and Tweedledum, ___to negotiate with.

(Kubota and Levine 2016: 124, (32d))

      f. Robin, I'm quite disappointed in ___, and Leslie, ___very angry at.

(Kubota and Levine 2016: 124, (32e))

For instance, in (28a), given that the object remnant and its correlate are topicalized and thus located in [Spec,TopP] of each conjunct, the subject remnant and its correlate must be also moved out of each TP (e.g., to [Spec,FocP]), specifically to have the topic-focus structure in Gengel's analysis (cf. (10)). Interestingly, in this case, when both conjuncts of gapping involve topicalized elements, then, leftward movement of the remnants as well as their correlates becomes obligatory (29), contrary to what happened in (25).

(29) a. [$_{TopP}$ The beans$_j$ [$_{FocP}$ HARRY$_i$ [$_{TP}$ t_i cooked t_j]]], and

          [$_{TopP}$ the potatoes$_k$ [$_{FocP}$ HENRY$_k$ [$_{TP}$ t_q cooked t_k]]]

      b. *[$_{TopP}$ The beans$_j$ [$_{FocP}$ [$_{TP}$ HARRY cooked t_j]]], and

          [$_{TopP}$ the potatoes$_k$ [$_{FocP}$ HENRY$_k$ [$_{TP}$ t_q cooked t_k]]]

But this cannot always be the case if we consider examples like (30) where only the first conjunct involves topicalization.

(30) The beans, Harry cooked and Henry, ___ the potatoes.

(Hankamer 1979: 151, (36))

In keeping with topic and focus movements, in this case, both conjuncts cannot choose but have the parallel structures, as in (31), but where each conjunct has a different order of topic-focus structure, inconsistently with the information-structure of the remnants and their correlates, specifically in parallel positions.

(31)   *[$_{TopP}$ The beans$_j$ [$_{FocP}$ HARRY$_i$ [$_{TP}$ t_i cooked t_j]]], and

[$_{TopP}$ HENRY$_k$ [$_{FocP}$ the potatoes$_q$ [$_{TP}$ t_k cooked t_q]]]

Since in (10) the remnants of the second conjunct undergo leftward movement to the CP-domain; the subject to [Spec,TopP] and the object to [Spec,FocP] *in that order*, and in (31) the topicalized element *the beans* of the first conjunct is presumably located in [Spec,TopP], there would be no way to place *the beans* in [Spec,FocP]. This causes the ungrammaticality of (31), which should be grammatical under Gengel's analysis.[27]

2.1.2.   Gapping as VP-deletion under low-coordination

This kind of deletion analysis is followed by several researchers like Coppock (2001), Lin (2002), and Toosarvandani (2015, 2016), who argue one way or another that gapping is obtained by eliding the VP under low-coordination. The main reason that leads the authors to propose this kind of analysis is that the three unique properties of gapping (i.e. restriction on coordination, no-embedding gap, and no-embedding antecedent) that distinguish it from other ellipsis constructions such as pseudogapping can be also explained in terms of VP-deletion.

Coppock (2001), for example, proposes that the gapping sentence in (32) involves the derivation in (33) in which the remnants undergo leftward movement, and then ellipsis applies to the VP.

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[27] The same problem arises when only the second conjunct has topicalization (i).

(i)   A: Gee, the beans and the potatoes are so good! Did Tom cook them again?
      B1:   No. Today, Tom cooked the beans, and Bill, the potatoes.
      B2:   No. Today, Tom cooked the beans, and the potatoes, Bill.

(Kanazawa 2015: 49)

Recall that Gengel assumes that the contrastiveness is crucially obtained by movement to the CP-domain. I think that any kind of analyses assuming contrastiveness (of both topic and focus) by movement struggles to accommodate this kind of inconveniences (see § 3.3.2 for an alternative).

(32) John likes caviar and Mary Δ beans. (Δ=*likes*)

(33)

```
                    TP
                   /  \
             John₁    T´
                     /  \
                    T    VP
                        /  |  \
                      VP  and  VP
                     /  \     /   \
                    t₁   V´  Mary₂  VP
                       /   \      /    \
                      V   caviar beans₃  ✂̶V̶P̶
                      |             /     \
                    likes        t̶₂      V̶´
                                        /    \
                                      V̶      t̶₃
                                      |
                                    likes
```
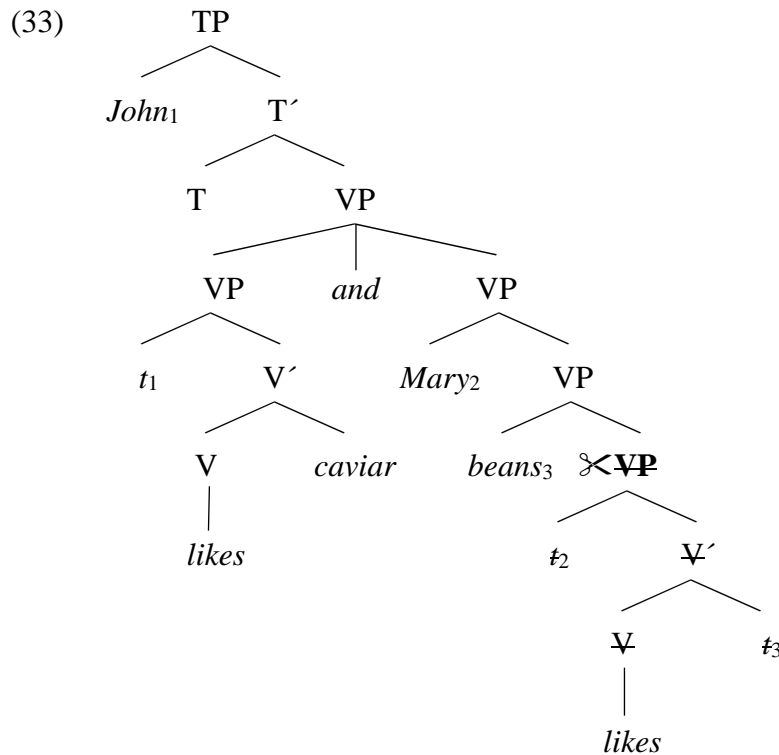
(Coppock 2001: 1, (2))

Recently Toosarvandani (2015, 2016) also defends this kind of VP-deletion analysis.[28] He mainly considers instances of gapping which involve complex gaps, as exemplified in (34).

(34) Some had ordered mussels, and others Δ swordfish. (Δ=*had ordered*)

(Toosarvandani 2015: 18, (35))

According to this author, the sentence in (34) has the representation in (35) where he assumes that the object remnant undergoes rightward movement out of the VP, whereas the subject remnant is generated in [Spec,vP] and thus unaffected by deletion process.

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[28] Toosarvandani (2016) is a short version of his manuscript written in 2015. Since there is no substantial difference between two papers, I will review his longer version throughout this section.

(35)

TP

Some₁ ... T´

T — *had*

vP

vP *and* vP

t₁ v´ ... *others* v´

v VP ... v VP

VP_A *mussels₂* ... ~~VP~~_E *swordfish₂*

V *mussels₂* ... ~~V~~ *t₂*

ordered ... ↓ ~~*ordered*~~ ↓

LF-movement ... Movement in Syntax
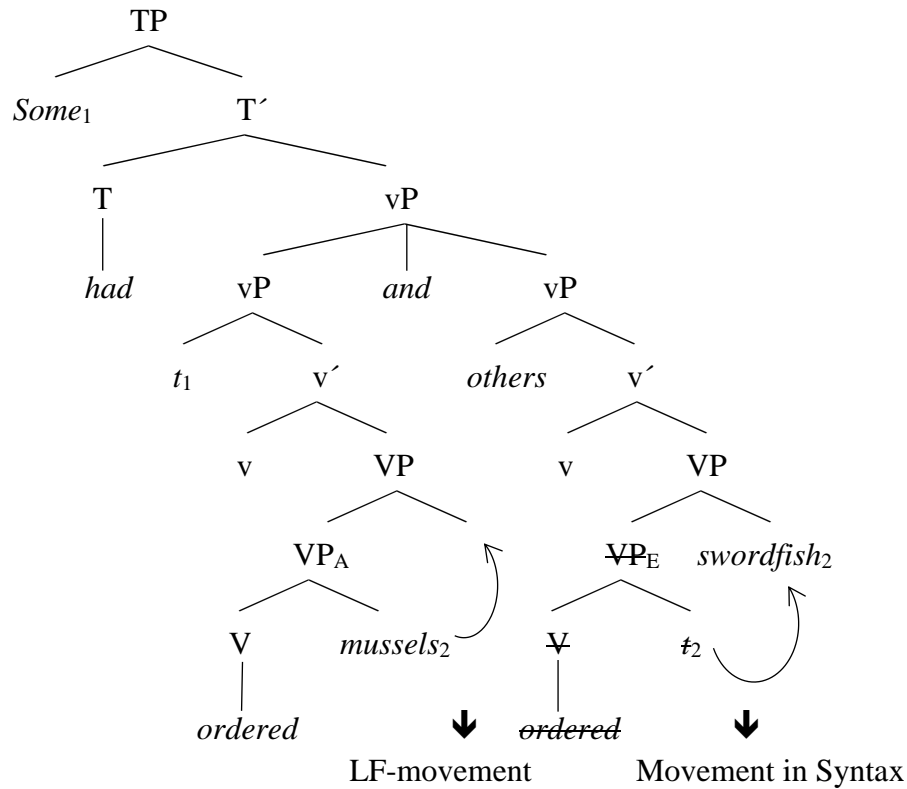
(Toosarvandani 2015: 20, (38))

Both Coppock's and Toosarvandani's analyses have some advantages over the TP-deletion. For example, an analysis with VP-deletion under low-coordination has no problem with the wide-scope reading of negation (or other auxiliaries). This because there is only one instance of scope element immediately above the vP-coordination.[29]

    Similarly, as noted by Johnson (2009: 296-297), this kind of analysis can explain why gapping is found only in coordination (or coordinate-*like* structures). The logic of this author is the following. If the VP-deletion analysis under low-coordination combines with the following two premises; (i) VPE can elide VPs but not TPs; and (ii) verb movement to Tº must feed VPE, then, it can explain why gapping is restricted to coordination.[30] To illustrate this virtue, Johnson considers first a gapping sentence like (36), which involves a discontinuous gap and has the representation in (37) under the VP-deletion analysis.

---

[29] Conversely, this kind of analysis cannot account for the narrow-scope reading, as it proposes that gapping involves low-coordination.

[30] For the second premise, Johnson does not provide evidence for verb movement in English. However, as far as I can reach, what Johnson wants to state here is nothing more than movement of the auxiliary *have* to Tº. If we assume that auxiliary verbs in English are generated below the TP (e.g. AuxP or AspP) and then move to Tº, contrary to the lexical verbs, Johnson's premise does not need much justification.

(36) Some have served mussels to Sue and others Δ_1 swordfish Δ_2.

$(\Delta_1$=*have served*, Δ_2=*to Sue*)

(37)

```
                          TP
                        /    \
                   Some_i     T´
                            /      \
                          T          VP
                          |         /    \
                       have_j      V´
                                 /      \
                               V          vP
                               |        /  |  \
                              t_j     vP  and   vP
                                     /  \      /   \
                                   t_i   VP³¹ others  VP
                                        /  \         /    \
                              served mussels to Sue  V̶P̶   swordfish_j
                                                    /  \
                                          s̶e̶r̶v̶e̶d̶ ̶t̶ⱼ̶ ̶t̶o̶ ̶S̶u̶e̶
```
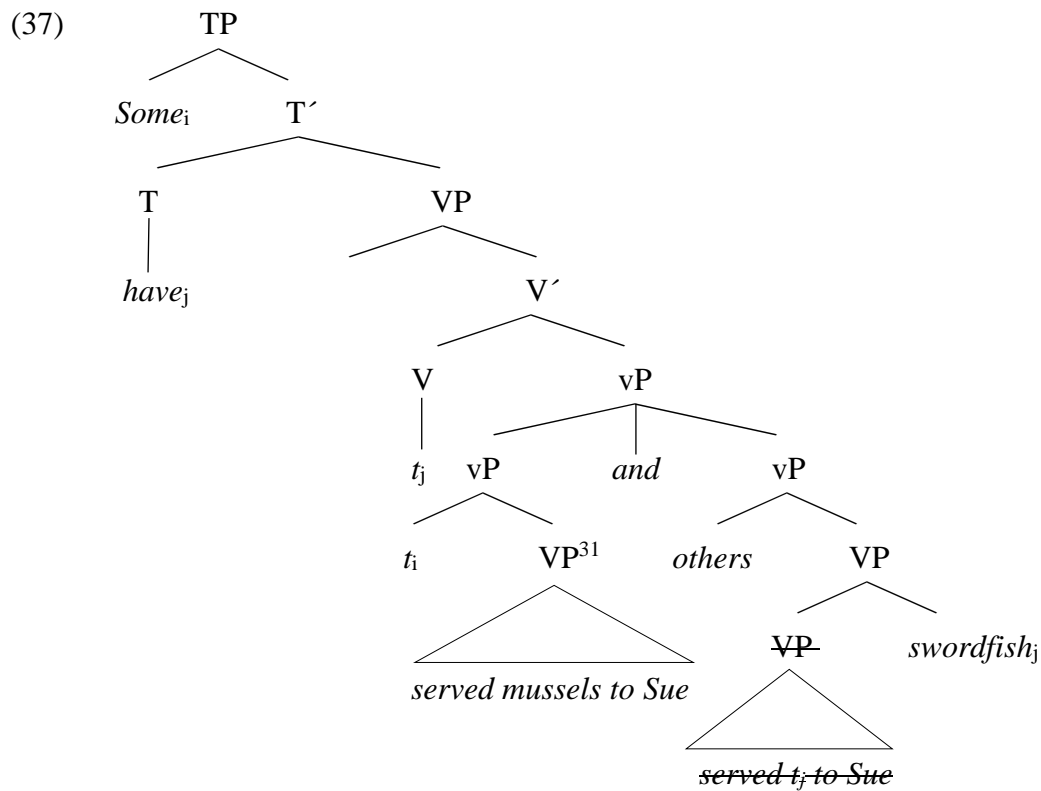
(Johnson 2009: 296, (23b))

Given this situation, Johnson argues that "the aforementioned two premises will prevent finite auxiliary verbs from being elided by VPE. The only way they can appear to be elided is by way of the syntax indicated in (37): standing outside a coordination. Because gapping appears to elide a finite auxiliary, it will arise only in coordination (Johnson 2009: 297)". For instance, the impossible gapping in adjunct clauses (38) can be explained as follow: movement of the auxiliary *have* to T° must feed ellipsis of the (higher) VP in (39), so that there will be no way to elide the auxiliary located in T°, in tandem with the premise that VPE elides VP (and not TP).

(38) *Some have served mussels to Sue, because others Δ_1 swordfish Δ_2.

$(\Delta_1$=*have served*, Δ_2=*to Sue*)

---

[31] This is the representation given by Johnson (2009), where he omits moving the object DP *mussels* out of the VP in the first conjunct to delete the second conjunct's VP under identity. In any case, this kind of stuff does not affect his argumentation in the text.

(39)

Some have served mussels to Sue

(My representation)
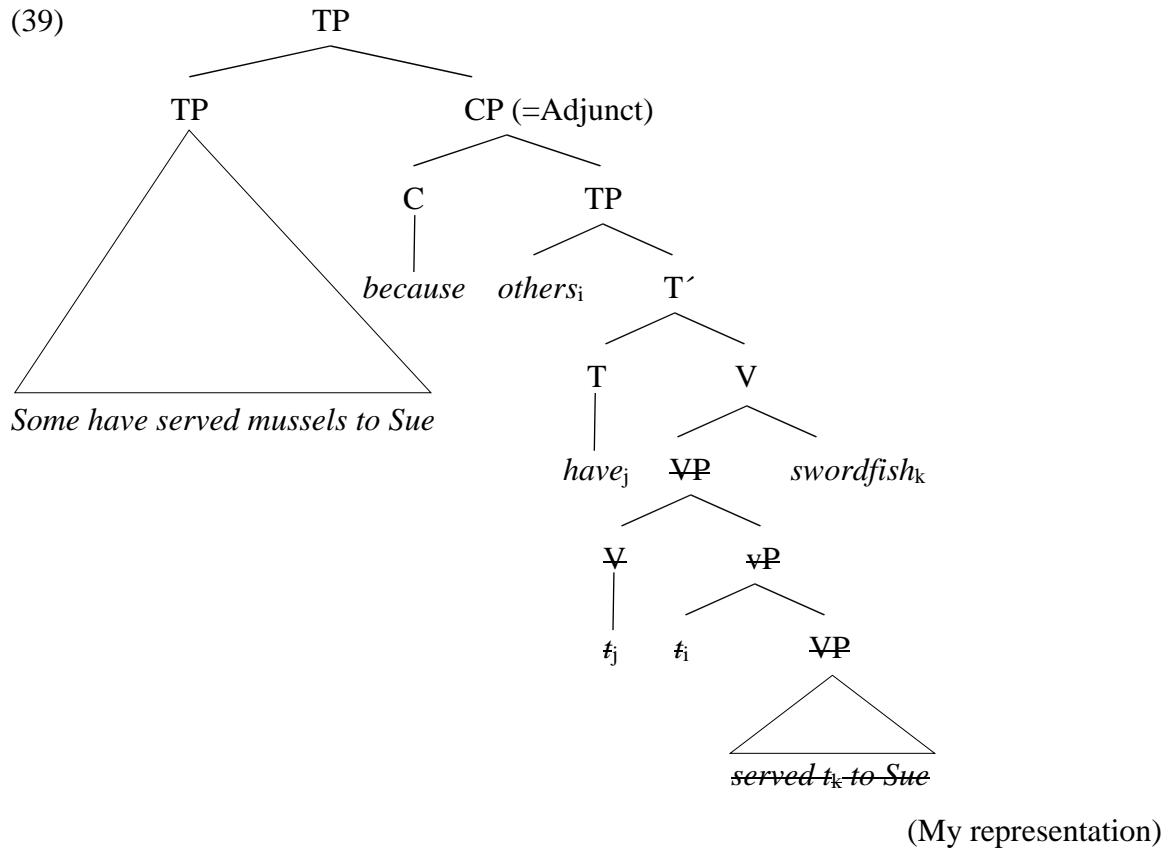
Therefore, the example in (36) is nothing more than the result of VP-deletion allowed only in context of low-coordination under that kind of analysis.

Johnson (2009: 299-300) further notes that the VP-deletion under low-coordination is also able to account for why gapping cannot occur in the embedded contexts. According to this author, an instance of gapping like (40) is ungrammatical because the finite auxiliary *had* is not included in the VP that can be elided (41).[32]

(40) *Some had eaten mussels and she claims that others Δ shrimp.   (Δ=*had eaten*)

(41) …   *she claims* [CP *that* [TP *others*ᵢ [T′ *had*ₖ [VP *t*ₖ [vP *t*ᵢ *eaten t*ⱼ]] *shrimp*ⱼ]]]

This result is also expected from the aforementioned two premises; i.e. (i) VPE does not include the TP and (ii) verb movement to Tº feeds VPE.[33]

Similarly, Toosarvandani (2015: 21) also argues that if gapping is derived by low-coordination plus VP-deletion, both the fact that (i) gapping is restricted to coordination and that (ii) the gap cannot be embedded can be straightforwardly accounted for by the syntax of low-coordination. He states that "(i) derives from the fact that only when the vPs are coordinated, can they share the single T°; and (ii) is due to the fact that the gap would be contained in a finite clause that could not participate in T°-sharing with the first conjunct (Toosarvandani 2015: 24)". According to him, the so-called "No-Embedding Constraint" (Hankamer 1979; Johnson 2014) is not syntactic restriction but a condition motivated by a special information-structural property; specifically, to have parallel focus structures in gapping. Toosarvandani derives this effect from what he calls "Low-Coordinate Parallelism" in (42), which interacts with the general Focused Remnant Requirement in (43).

(42)　a.　*Low-Coordinate Parallelism* (*informal*)

　　　　In vPs that are coordinated, non-focused material must be semantically

　　　　identical.

(Toosarvandani 2015: 22, (46))

　　　b.　*Low-Coordinate Parallelism* (*formal*)

　　　　For vPs α and β, if α and β are coordinated, $[[\alpha]] \in ALT (\beta)$ and $[[\beta]] \in ALT$

　　　　(α)

(Toosarvandani 2015: 25, (55))

(43)　*Focused Remnant Requirement*

　　　The remnants in gapping must each contain a focus.

　　　(e.g. [SOME]F had ordered [MUSSELS]F, and [OTHERS]F Δ [SWORDFISH]F)

(Δ=*had ordered*)

He explains that the Low-Coordinate Parallelism in (42) is satisfied in (34) because the focus structures of the two vP-coordinates are identical to each other; i.e. "*ALT* (vP1) and *ALT* (vP2) are the same set of propositions and the ordinary meanings of both conjuncts are in this set. The proposition that the first conjunct [*some ordered mussels*] is of the form '*y*

(i)　　Some had eaten mussels and she claims that others had Δ shrimp.　　　　　　(Δ=*eaten*)

This data suggests that what is going wrong in (40) is erroneously eliding the auxiliary in T°. Thus, the two premises mentioned in the text play some role in the interaction between gapping and pseudogapping.

ordered x', as is the proposition of the second conjunct [*others ordered swordfish*] (Toosarvandani 2015: 26)". In accordance with the requirements shown in (42) and (43), the author explains that the gapping sentence in (44) is unacceptable because it has the illicit representation in (45).

(44)   *She has said that Peter has eaten his peas, and Sally Δ her green beans.

(Δ=*has eaten*)

(45)   *[SHE]**F** has [said that Peter has eaten his PEAS]**F**, and [SALLY]**F** [eaten her GREEN
         BEANS]**F**.

Concerning this ill-formed focus representation, Toosarvandani states that "although this alternate focus structure counts as parallel by the definition of Low-Coordinate Parallelism in (42), it is ruled out by the Focused Remnant Requirement in (43): i.e. the second remnant *peas* of the first conjunct fails to encompass a focus. Thus, there is no appropriate focus structure that can make the complex gap in (44) grammatical (Toosarvandani 2015: 27)". In this way, the author elucidates why gapping is restricted to coordination.

As for the derivation of gapping in terms of VP-deletion, Coppock (2001) provides some interesting arguments to support her analysis illustrated in (33).

Considering first the example in (46), where the ability of the quantifier *not every girl* in the antecedent clause to bind a variable *her* in the gapped clause indicates that the former c-commands the latter, Coppock claims that this sort of connectivity effects would be unexpected if the elided material is larger than a VP (or vP).[34]

(46)   [Not every girl]$_1$ ate a green banana and her$_1$ mother (*ate) a ripe one.

(Johnson 2000: 60, (2a))

Coppock also argues that remnants are left-adjoined to VP rather than to TP. She claims that VP-adjunction for the remnants can be justified by data involving both Antecedent Contained Deletion (ACD) and Negative Polarity Items (NPIs) (47).

---

[34] However, as a matter of fact, this example does not support VP-deletion analysis but low-coordination itself. That is, the ATB-movement analysis can also account for the fact because *not every girl* will be located outside the vP-coordination and there will be no verb in the second conjunct due to ATB-movement.

(47)   That boy won't do [a damn thing I ask him to ___].

<div align="right">(Merchant 2000: 144, (1a))</div>

As stated by Coppock, the syntax of ACD involved in (47) consists of Quantifier Raising (QR) of the bracketed constituent; i.e. [*a damn thing I ask him to*]. Since the NPI *a damn thing* is included in this bracketed constituent that undergoes QR, the NPI must be in the c-command domain of its licenser (i.e. the negation *not* in this case). On the contrary, if the bracketed constituent undergoes QR to TP, the NPI *a damn thing* would be outside the scope of negation, so it must be left-adjoined to VP rather than to TP (see a.o. Sag 1976; May 1977; Fiengo and May 1994, 1998; Kennedy 1997; Merchant 2000; Fox 2002 for more details on ACD and its interaction with NPIs).[35]

Finally, Coppock claims that a VP cannot be the acceptable remnant in gapping (48). She suggests that this fact can be explained if only the VP (and not the AuxP) can be deleted in context of gapping.[36]

(48)   *John will bring dessert and Mary Δ provide dinner   (Δ=*will*)

Despite this kind of virtues, Johnson notes that the low-coordination plus VP-deletion approach to gapping fails to explain why gapping cannot have embedded antecedents (49), contrary to what happens in pseudogapping (50).

(49)   *She's said that [$_{TP}$ [$_{TP}$ Peter <u>has eaten</u> his peas] and [$_{TP}$ Sally ___ her green beans]], so now we can have dessert.

<div align="right">(Adapted from Johnson 2009: 300, (29a))</div>

---

[35] But the nature of QR is different from movement of the remnant; the latter takes place in syntax prior to the PF-deletion, whereas the former is assumed to happen at LF. Thus, it is not so clear to what extent they could be comparable for the argumentation of the text.

[36] In reality, this sentence is an instance of the so-called "auxiliary gapping" illustrated in (i), which has been analyzed in terms of low-coordination below the single instance of an auxiliary.

(i)   Kim didn't play bingo and Sandy ___ sit at home all evening.
<div align="right">(Johnson 2014: 26, (84), quoting from Oehrle (1987: 205, (28)))</div>

It is interesting why the example in (48) is not acceptable, in comparison with (i); it seems that the auxiliary *will* is not able to be gapped, contrary to others. In this dissertation, I will not discuss further auxiliary gapping.

(50)   ?She's said that [$_{TP}$ [$_{TP}$ Peter <u>has eaten</u> his peas], and [$_{TP}$ Sally has ___ her green beans]], so now we can have dessert.

<div align="right">(Adapted from Johnson 2009: 301, (30a))</div>

He claims that if pseudogapping can apply in (50), it should also be able to in (49); i.e. if they involve the same derivation, namely by VP-deletion, such asymmetry is unexpected. Johnson provides a piece of independent evidence showing that low-coordination breaks the environment that licenses VPE. Johnson's argumentation goes as follows.

First, it is possible to elide the middle VP in a coordination of three conjuncts, as shown in (51).

(51) a. John might bathe, but Sally can't Δ because of her poison ivy and Mary won't get dressed, so we may as well give up.   (Δ=*bathe*)

<div align="right">(Johnson 2009: 301, (31))</div>

b.

```
                        TP
              ┌──────────┴──────────┐
             TP                     TP
            /▲\              ┌───────┴───────┐
           /  \            but              TP
          /    \                     ┌───────┴───────┐
   John might bathe                 TP               TP
                                   /▲\        ┌───────┴───────┐
                                  /  \       and             TP
                             Sally can't Δ                  /▲\
                             because of her poison ivy     /  \
                                                     Mary won't get dressed
```
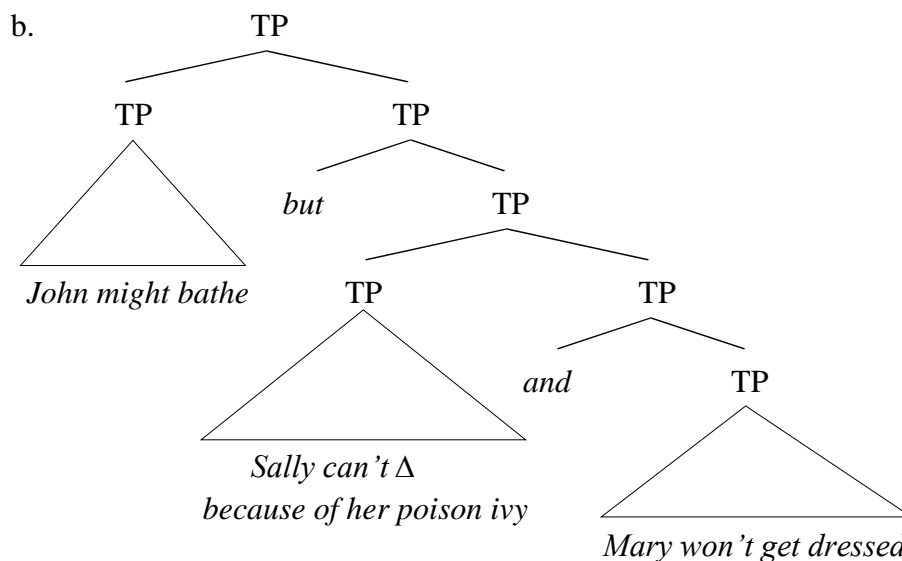
<div align="right">(Johnson 2009: 302, (32))</div>

In addition, the auxiliary contained in the second conjunct of the embedded coordination (52a) can be gapped, as represented in (52b).

(52) a. John might bathe, but Sally can't get wet because of her poison ivy or Mary get dressed because of her phobias, so we may as well give up.

<div align="right">(Johnson 2009: 302, (33))</div>

b.

```
                              TP
                    ┌─────────┴─────────┐
                   TP                   TP
                   /\              ┌─────┴─────┐
                  /  \            but          TP
                 /____\                    ┌────┴────┐
            John might bathe              DP         TP
                                          /\      ┌───┴───┐
                                       Sallyᵢ     T       vP
                                                  │    ┌───┴───┐
                                               can't  vP      vP
                                                     ┌─┴─┐    ┌─┴─┐
                                                    tᵢ  VP   or  vP
                                                        /\      ┌─┴─┐
                                                       /  \    DP  VP
                                                      /____\   /\   /\
                                                    get wet  Mary
                                              because of her poison ivy
                                                             get dressed because
                                                                of her phobias
```
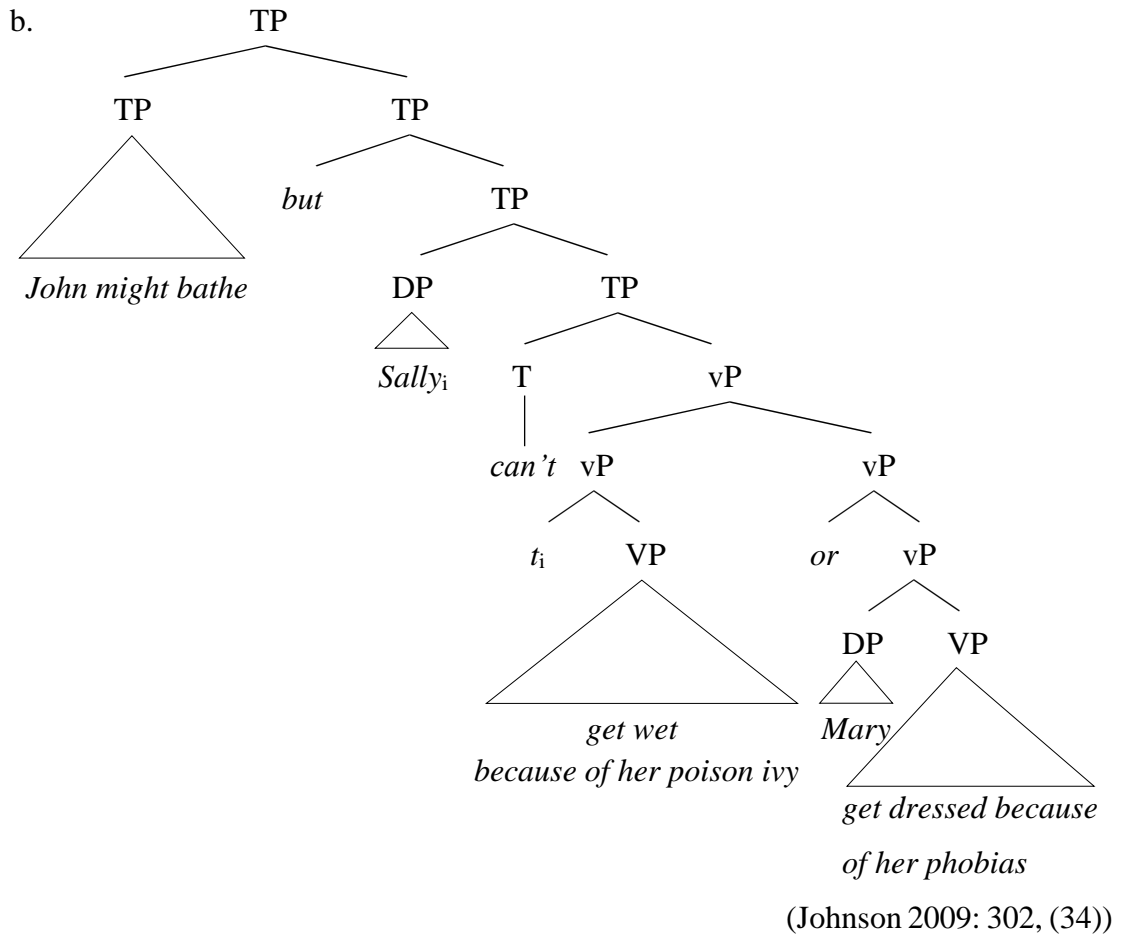
(Johnson 2009: 302, (34))

However, the combination of both leads to ungrammaticality, as shown in (53).

(53) a.   *John might bathe, but Sally can't because of her poison ivy or Mary get
            dressed because of her phobias, so we may as well give up.   (Δ= *bathe*)

(Johnson 2009: 303, (35))

b.

TP
- TP
  - *John might bathe*
- TP
  - *but*
  - TP
    - DP
      - *Sally$_i$*
    - TP
      - T
        - *can't*
      - vP
        - vP
          - *t$_i$*
          - VP
            - ~~VP~~
              - *bathe*
            - PP
              - *because of her poison ivy*
        - vP
          - *or*
          - vP
            - DP
              - *Mary*
            - VP
              - *get dressed because of her phobias*

(Johnson 2009: 303, (36))
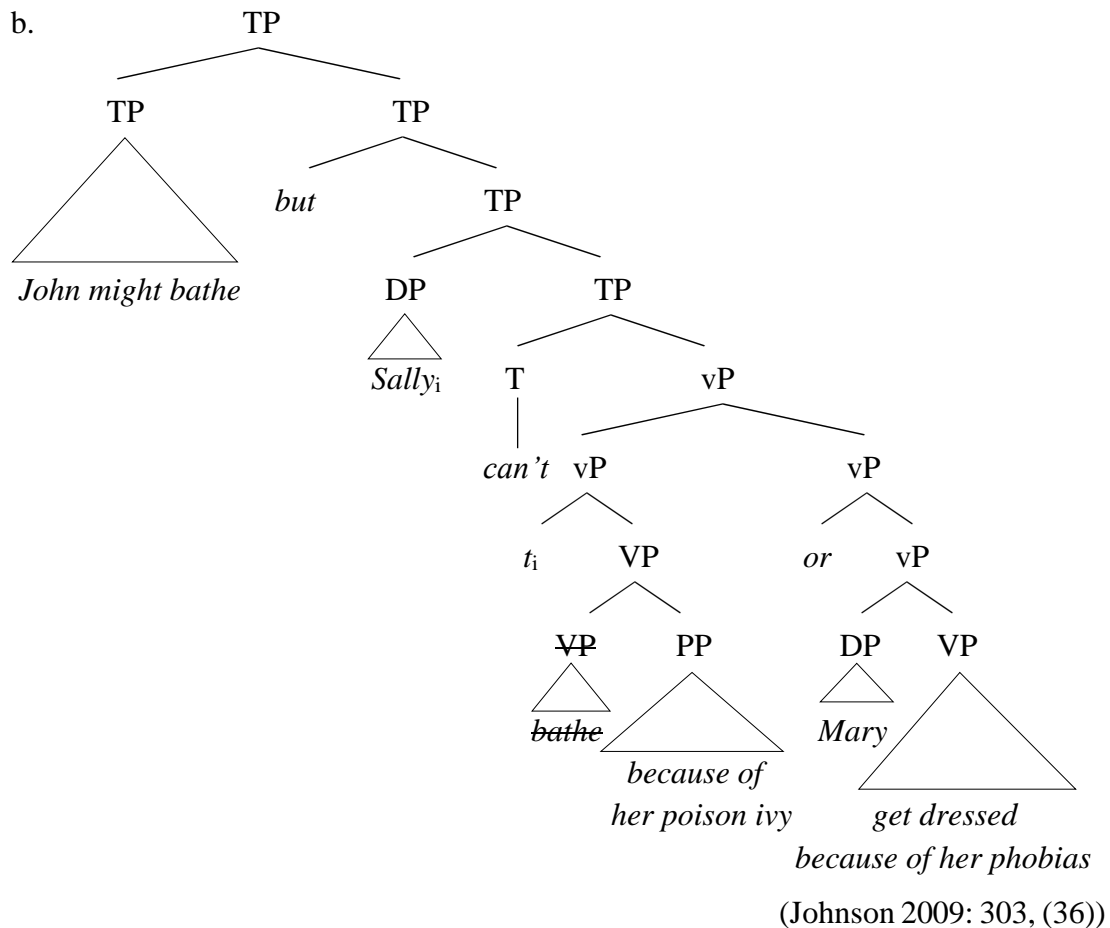
Thus, if VPE is possible in low-coordination, it is then mysterious why it is impossible in high-coordination. Notice that the VP-deletion under low-coordination wrongly predicts that the sentence in (53a) should be grammatical because it would be just a combination of VPE (51a) and low-coordination (52a). Thus, the VP-deletion analysis cannot explain data like (49).[37]

Besides this non-trivial problem raised by Johnson (2009), I would like to address some other issues related to Toosarvandani's analysis that require some clarifications.

Note first that under his analysis (in (35)), the subject DP of the second conjunct is not genuine remnant that has undergone movement prior to VP-deletion. This is because it is outside the VP (i.e. in [Spec,vP]) and thus not affected by deletion. The only remnant that has moved out of the ellipsis site (i.e. VP) is the object DP. Given this situation, it seems unclear to what extent the subject DP can be calculated as remnant, e.g., to satisfy the Focused Remnant Requirement in (43). In addition, it is not clear whether the subject

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[37] Of course, Johnson's (1996/2004, 2009) analysis can explain (53) by saying that, for the ATB-movement of the VP [VP *eaten*], there is no landing site available inside the embedded coordination.

DP of the second conjunct is focused or not. In the literature, it has been widely claimed that the subject DP of the second conjunct of gapping is in a contrastiveness relation with its correlate of the first conjunct: the former is a sort of contrastive topic rather than focus (see Kuno 1976, 1981, a.o.). If we follow this conception on the topic-status of the subject remnant, then, the Focused Remnant Requirement does not seem to work for the subject DP: because it is interpreted as contrastive topic, and not focus.[38]

In addition, it is unspecified in Toosarvandani's analysis why in the first conjunct, the correlate of the object remnant undergoes LF-movement. Even if this were motivated (e.g. to satisfy the Low-Coordinate Parallelism in (42)), LF-movement itself does not affect such requirement because the object correlate still will be located inside the vP after LF-movement (cf. (35)), and hence no problem arises when the (semantic) identity applies to the vP. Thus, there is no reasonable motivation of LF-movement for identity.

Finally, the analysis shown in (35), as it stands, amounts to saying that the verb of the second conjunct is somehow inflected prior to PF-deletion, which is evidenced by the past participle form *ordered* in that conjunct.[39] If this is the case, then, Toosarvandani's analysis must assume that in English, a single T° can undergo lowering (i.e. Affix-Hopping) to the verbs in an ATB-fashion. However, it is not clear whether in the general cases this kind of ATB-lowering of T° is possible at PF.[40]

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[38] The notion 'topic' is incompatible with 'focus' from the point of view of information structure.

[39] The same can be true for Johnson's analysis of complex gaps. Note that an output like *some had ordered mussels and other ordered swordfish* is acceptable as an instance of auxiliary gapping (Johnson 1996/2004, 2009, 2014). In this case, it seems that T° is also inflected in the past participle *ordered* of the second conjunct. Remember that Toosarvandani's analysis, which put aside the auxiliary, predicts that the sentence is possible in English. If the prediction is not borne out, then, his analysis must assume that VP-deletion is obligatory under low-coordination, though he does not discuss what is (could be) the trigger for the deletion of the VP.

[40] Fox (2000) proposes that ATB-lowering of a DP is possible as an instance of LF-reconstruction. However, Bošković and Franks (2000) convincingly argue that there is no ATB-movement at LF (see also Kasai 2004). In any case, ATB-lowering of T°, if it exists at PF (and not LF), should be clarified in some detailed way.

I think that in the second conjunct, what should be in V° is a root (or the verbal stem), and thus the structure in (35) should be more complex than it is; e.g., we can assume that the past participle form *–ed* is the head of Part(iciple)°. If so, the configuration in (35) should involve a larger coordination, e.g., "PartP-coordination". To a certain extent, this PartP-coordination can be also viewed as a sort of low-coordination because the second conjunct lacks T°-projection. Even if this were the case, what I would like to claim is that on the conception that Affix Hopping (or any type of PF-affixation) precedes deletion, the tense affix would be included in the ellipsis site of the second conjunct. If this is the case, what the structure in (35) illustrates is an instance of deletion of the VP containing both the verb and its inflection. This is of course not usual in the analyses of ellipses in terms of VP-deletion.

There is another uncertainty in (35); e.g., it is not clear how the lower segment of VP is elided at PF if v° is assumed to be the licensing head of ellipsis. For example, if the v° bears the [E]-feature, the higher VP is elided at PF. However, since Toosarvandani (2015, 2016) does not assume the [E]-feature for the deletion process, it is structurally unclear what is the licensing head and what is its complement deleted at PF.

2.2. Non-deletion analyses

Johnson (1996/2004) was a pioneer in this kind of approach to gapping and influenced a lot of subsequent works. This author objects first to the high-coordination approaches to gapping by the following reason. He points out that under high-coordination they fail to address scope facts in gapping (Siegel 1984, 1987; Oehrle 1987; Oirsouw 1987; and McCawley 1993). That is, if gapping involves that kind of coordination, the wide-scope reading of negation (or auxiliaries) cannot be obtained. Johnson also raises objections to gapping being an instance of VPE. He notes that gapping differs from both VPE and pseudogapping in the following four aspects; (i) the licensing environments are different from those of VPE and pseudogapping (54-55); (ii) the second conjunct of gapping can be in the scope of an element outside it, in contrast to what happens in pseudogapping (56-57); (iii) the strings affected by ellipsis are different from those of VPE and pseudogapping (58-59); and (iv) the identity requirements are not the same as in pseudogapping (60-61) (Examples are taken from Johnson1996/2004: 21-29).[41]

(54) *Gapping*

    a.   Betsy likes cats and Liz Δ dogs.   (Δ=*likes*)

    b.   *Some ate natto today, because others Δ yesterday.   (Δ=*ate natto*)

(55) *VPE and Pseudogapping*

    a.   Besty could like cats and Liz might Δ too.   (Δ=*like cats*)

    a.´   Betsy could like cats and Liz might Δ dogs.   (Δ=*like*)

    b.   Some will eat natto, because others did Δ too.   (Δ=*eat natto*)

    b´.   Some will eat natto today, because others had Δ yesterday.   (Δ=*eat natto*)

(56) *Gapping*

Kim didn't eat natto and Sandy Δ rice.   (Δ=*eat*)

(i) 'It could not be the case that John ate natto and Sandy ate rice'

(ii) 'Kim did not eat natto and Sandy did not eat rice"

---

[41] There are of course similarities between VPE and gapping. As Johnson himself noticed, both constructions involve "an operation that removes a string that contains a verb under identity with some previously occurring string. In addition, both VPE and gapping can either strand a portion of the VP it affects, or take all of it (Johnson 1996/2004: 3)".

(57) *VPE and Pseudogapping*

    a.   Kim didn't eat natto and Sandy did Δ.   (Δ=*eat natto*)

        'Kim did not eat natto and Sandy ate natto'

    b.   Kim didn't eat natto and Sandy did Δ rice.   (Δ=*eat*)

        'Kim did not eat natto and Sandy ate natto'

(58) *Gapping*

    a.   Some elected the schmucks Senators and others Δ Congressmen.

                                      (Δ=*elected the schmucks*)

    b.   Some considered Sandy handsome and others Δ Sandy plain.

                                          (Δ=*considered*)

    c.   Some believe Gapping to reveal much and others Δ to obscure much.

                                        (Δ=*believe Gapping*)

(59) *Pseudogapping*

    a.   *Because someone has elected schmucks Senators we will Δ Congressmen.

                                        (Δ=*elect schmucks*)

    b.   *Even though some considered Sandy handsome, others did Δ plain.

                                        (Δ=*consider Sandy*)

    c.   *Even though some believe Gapping to reveal much, others do Δ to obscure

        much.   (Δ=*believe Gapping*)

(60) *Gapping*

    *The budget cuts might be defended publicly by the chancellor, and the president

    Δ her labor policies.   (Δ=*might defend publicly*)

(61) *Pseudogapping*

    ?The budget cuts might be defended publicly by the chancellor, but surely she

    wouldn't Δ her labor policies.   (Δ=*defend publicly*)

These asymmetries between gapping and other types of ellipsis lead Johnson to seek the following alternative.

2.2.1.　　　Gapping as Across-The-Board-movement of the VP

Johnson (1996/2004) proposes a movement account of gapping which has the following properties: (i) gapping involves low-coordination, (ii) it is not ellipsis but the result of Across-The-Board (ATB)-movement of the VP to [Spec,Pred(icate)P], and (iii) the subject of the first conjunct undergoes movement to [Spec,TP], violating superficially the CSC. According to this analysis, the gapping sentence in (62) has the representation of (63).

(62)　Some tried to eat natto, and other Δ rice.　　　　　　　　　　　(Δ=*tried to eat*)

　　　　　　　　　　　　　　　　　　　　　　　　(Johnson 1996/2004: 64, (164))

(63)

```
              TP
         ／        ＼
    Some₁⁴²         T′
                 ／      ＼
               T          PredP
                       ／        ＼
                    VP₂           Pred′
                  ／  ＼         ／      ＼
          tried to eat t₃  Pred          XP
                                      ／   |   ＼
                                   XP    and    XP
                                 ／  ＼        ／  ＼
                               tᵢ⁴³    XP   others   XP
                                     ／ ＼         ／ ＼
                                natto₃  XP    rice₃   XP
                                      ／ ＼        ／ ＼
                                     X   vP       X   vP
                                         |            |
                                         t₂           t₂
```

(Johnson 1996/2004: 64, (165))
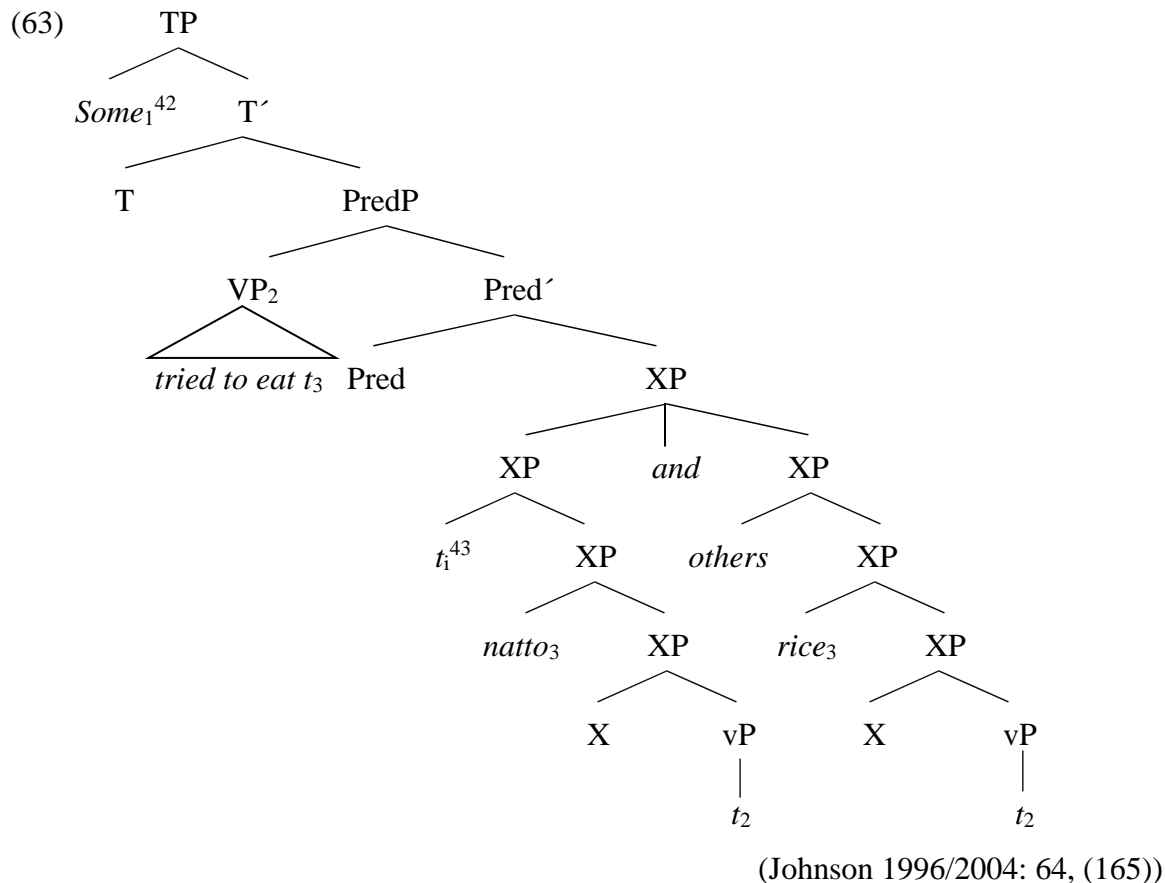
Johnson explains that in (63) VP-movement is possible because the lower segments of each conjunct are identical, the VP (and not the lexical verb) is what undergoes ATB-movement

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[42] Johnson assumes that subject movement is exempt from the CSC because it is A-movement. Importantly, Johnson does not state at any moment that the CSC is representational at LF; instead, he suggests that "the CSC does not prevent independent A-movement from the initial conjunct (Johnson 1996/2004: 40-41)". He provides as supporting evidence the following example where A-movement from an initial conjunct to the left of the matrix verb particle *out* does not render the ungrammaticality, as shown in (i).

(i)　　a.　　Liz made Masonᵢ out [IP [IP tᵢ to be intelligent] and [IP Sarah to be kind]].
　　　　b.　　Julie has believed Lizᵢ for a long time [IP [IP t₁ to be honest] and [IP Scott to be entertaining]]

These examples show that the subject of the first IP has undergone A-movement, regardless of the nature of the CSC; either configurational or representational. Lasnik (1999b, 2003) suggests that A-movement in general does not leave trace and thus there is no trace at the original position from which the subject has been moved out. From this perspective, I think that A-movement of the subject in (63) does not have to concern the CSC, because there is no trace of movement at LF. On the other hand, as for the motivation of A-movement, the conceptual distinction between A-movement and A'-movement has been generally related to raising to Case positions (see Mahajan 1990; Chomsky and Lasnik 1993; Radford 2004; Chomsky 2007; Obata 2010 for more details on A/A'-distinction). That is, if we follow Chomsky (2000, 2001) who proposes that NOM Case is assigned by Agree operation (see a.o. Legate 2008 for recent defense on this approach to Case assignment), then, subject movement in (63) can be exempted from the CSC at overt syntax, along with Lasnik's suggestions on (the nature of) A-movement.

[43] Interestingly, he assumes that in this case, the subject DP is generated outside the vP, namely in the specifier position of the XP. Johnson (1996/2004) notes that XP is *c*-selected only by Pred°, but he does not specify it further. I think that XP could be reinterpreted as VoiceP (of Kratzer 1996), which is generated above the vP and the head Voice° introduces the external argument, namely the subject DP.

to [Spec,PredP], which is located immediately outside the vP-coordination.[44] He ultimately suggests that both simple and complex gaps involve the same derivation, namely ATB-movement of the VP.[45]

However, Johnson (2009) slightly modifies his original analysis, as in (64) where he suggests that the remnants are right-adjoined to the VP, akin to HNPS.[46]

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[44] In Johnson (1996/2004), it is stated that this VP-movement is crucially motivated by Zwart's (1993, 1997) theory of Predicate Shift, which derives the verbal complexes in languages like Dutch and German. Adopting this theory, Johnson applies such VP-movement to English gapping, but this time evidently in an ATB-fashion. As for the Predicate Shift, the author assumes that it is not implausible to follow it in the context of gapping because English also belongs to the Germanic language family.

[45] He states that "… there is no problem in generating simple gaps of main verbs. These, in fact, will have precisely the syntax of complex gaps. The surface parse in (219), for example, corresponds to "some ate natto and others rice" (Johnson 1996/2004: 86)". In the literature, however, many authors refer to Johnson (1994) where he supposedly proposes that gapping is derived by ATB-movement of the verb to Pred°, so that *some ate natto and others rice* does not involve the derivation of (63) if those researchers are correct. Because I did not find that paper anywhere, and more importantly, as Johnson himself does not state in his paper in 1996/2004 that simple gaps involve ATB-movement of the verb, I take for granted that the gist of Johnson's analysis is such that both simple and complex gaps are equally derived by ATB-movement of the VP.

[46] This author states that "gapping, then, arises when the vPs have been coordinated, and the VP-movement indicated in (41) and (42) occurs across the board. Movement of the VP can be fed by operations—such as heavy NP shift—that are also found in pseudogapping (Johnson 2009: 307)". Note however that the remnants undergoing the supposed HNPS is by no means heavy, so it is unclear why Johnson states that they undergo HNPS. This kind of misnomer is applied to not only Johnson but also any other analysis employing HNPS as movement of the remnant(s). Note also that one potential motivation that might lead Johnson (2009) to modify (63) as in (64) may be something like the following. For cases of continuous gaps such as (i),

(i)   a.   John writes poetry in the garden, and Max Δ in the bathroom.   (Δ= *writes poetry*)
                                                                     (Jackendoff 1971: 24, (15a))
       b.   Charlie went into the bedroom at 5:30, and Lola Δ at 5:31.   (Δ = *went into the bedroom*)
                                                                      (Jackendoff 1971: 24, (15c))
       c.   Some gave a book to Sally and others Δ to Jim.   (Δ = *gave a book*)
                                                                      (Johnson 1996/2004: 32, (93))

under Johnson's (1996/2004) analysis, we have the illicit representation of movement of the remnants prior to ATB-movement of the VP. For instance, the sentence in (ic) has the representation in (ii) before the VP undergoes ATB-movement.

(ii)   *[$_{vP}$ John [$_{VP}$ to Mary$_i$ [$_{vP}$ gave a book t_i]], and [$_{vP}$ Bill [$_{VP}$ to Sue$_i$ [$_{vP}$ gave a book t_i]].

By contrast, we will have a licit representation of (ic) under Johnson's (2009) modified analysis because the remnants undergo rightward adjunction, which is 'string-vacuous' (iii).

(iii)   [OK][$_{vP}$ John [$_{VP}$ [$_{vP}$ gave a book t_i] to Mary$_i$], and [$_{vP}$ Bill [$_{VP}$ [$_{vP}$ gave a book t_i] to Sue$_i$].

Although John does not mention, I suppose that this is the precise reason why he suggests that the remnants undergo rightward movement, similar to HNPS. Nevertheless, as will be seen later, this kind of rightward movement does not always produce licit instances of gapping when we consider discontinuous gaps.

(64)

```
                    TP
                  /    \
             Some₃      TP
                      /    \
                     T      PredP
                     |      /     \
                   will  VP₂       Pred´
                        /  \      /     \
                       /____\   Pred     vP
                      eat t₁          /      \
                                    vP   and   vP
                                   /  \       /  \
                                 t₃   vP   others  vP
                                     /  \        /   \
                                    v   VP      v     VP
                                       /  \          /   \
                                      t₂  beans₁    t₂   rice₁
```
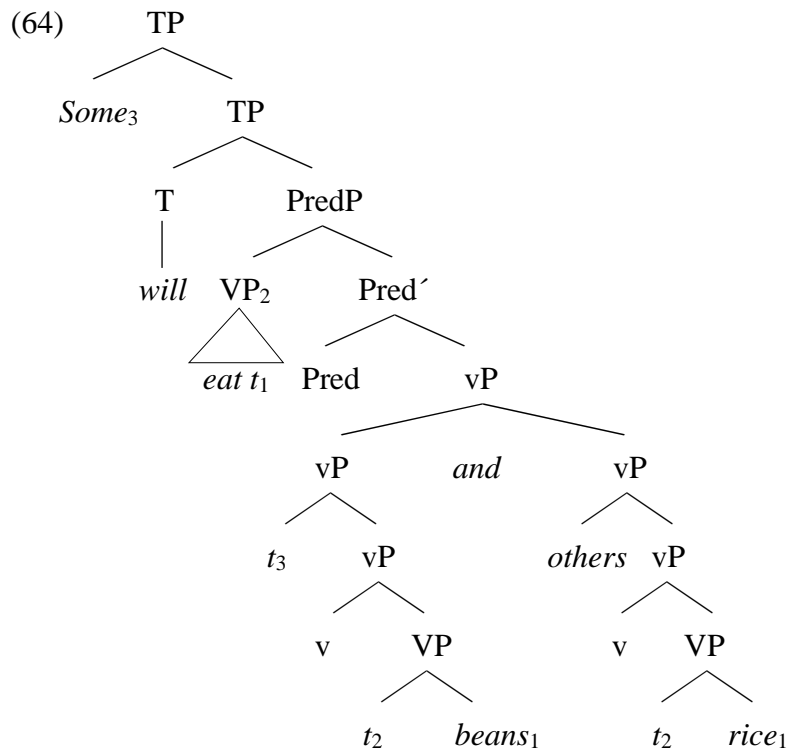
<div align="right">(Johnson 2009: 307, (43))</div>

In (any version of) Johnson's analysis, Case assignment for the subject of the second vP-conjunct, which does not have its own Case-assigner (i.e. T°), will be done as follows. He proposes a novel Case assignment mechanism called "Sharing" in (65), which states that "if T° assigns Case to subjects that it c-commands, then, a "Sharing" will allow Case to be assigned from a (single) T° that lies outside coordination into each of the conjuncts (Johnson 1996/2004: 41)".

(65)   *Sharing*

Let $\{\beta_1, \beta_2, \ldots, \beta_n\}$ be terms in a coordination, C, such that each β is in parallel position of a different conjunct of C; and let α be a term outside C. For any syntactic relation, R: R holds of $(\alpha, \{\beta_1, \beta_2, \ldots, \beta_n\})$ *iff* R holds of $\{(\alpha, \beta_1), (\alpha, \beta_2), \ldots, (\alpha, \beta_n)\}$.

<div align="right">(Johnson 1996/2004: 35, (99))</div>

According to the author, a single instance of T° is capable of assigning NOM Case to the subjects of both vP-conjuncts, thanks to the "Sharing" mechanism. In this way, the subjects of both conjuncts will have NOM Case (66),

(66)   She$_{NOM}$ ate the beans, and he$_{NOM}$ Δ the rice.   (Δ=*ate*)

though by definition, the "Sharing" mechanism in (65) fails to account for cases where the subject of the second conjunct bears ACC Case (67).[47]

(67)   She$_{NOM}$ ate the beans, and him$_{ACC}$ Δ the rice.   (Δ=*ate*)

This type of Case assignment apparatus behaves roughly like the so-called "Multiple Agree" proposed by Hiraiwa (2000, 2001, 2005): a single Probe, namely T°, can enter into an Agree relation with two distinct Goals in its c-command domain. But crucially, the gist of the Multiple Agree is the same as "Sharing" to a large extent; i.e. more than one element get the same Case by one single Case-assigner. In this respect, it is reasonable to consider that Johnson's Case mechanism in (65) was substantially innovative at that time within the pre-Agree system for Case assignment.

Among other things, the most significant consequence of Johnson's analysis is that it can straightforwardly explain why gapping occurs only in context of (low-)coordination. The logic is that ATB-movement is generally assumed to be applicable only in coordinate structures and gapping is argued to be the result of ATB-movement, so that it is naturally predicted that gapping is restricted to coordination.[48]

However, Johnson's ATB-movement analysis has some problems to solve.

First, concerning the complex gaps where the missing part of the second conjunct involves more elements than the verb, Vicente (2010: 510) points out that ATB-movement analysis in essence predicts that if the gapped string *wants to write* in (68) has undergone movement, it should be also movable in other environments, contrary to fact (69).

---

[47] Obviously, in languages like English, the T° cannot assign ACC Case to a DP in its c-command domain (see a.o. Pesetsky and Torrego 2011 for this fact and related discussions). For (67), Johnson (1996/2004: 44) suggests that "the solution to this phenomenon will come from a better understanding of the relationship between the Case licensing and the morphological expression of that Case, in particular, in context of default Case (Schütze 1999/2001)". Since in English, such default Case is ACC, this kind of solutions is not unlikely at the outset. To deal with examples like (67), one might alternatively assume Zoerner's (1995) solution. This author proposes that ACC Case on the subject DP of the second conjunct is assigned by coordinator *and* itself, noting that the coordinator is plausibly responsible for ACC Case in an example like *You and me*$_{ACC}$ *will go far*. However, Johnson departs from this perspective. Note that Zoerner's claim does not mean that *you and I*$_{NOM}$ … is ungrammatical; it is equally grammatical as the previous example. In fact, such kind of ACC Case on the subject DP of the second conjunct in gapping is, at best, language-specific to English. To the best of my knowledge, no other language than English exhibits this kind of Case patterns in context of gapping (see also Hudson 1989 for a similar remark on this phenomenon).

[48] Ross (1967: § 4.2.4) describes ATB as a class of rules that moves a constituent out of all the conjuncts of a coordinate structure at once. Reinhart (1991) notices that stripping is also restricted to coordination. But this does not imply that stripping must involve ATB-movement.

(68) Randy wants to write a novel, and Amy ___ a play.

<div align="right">(Vicente 2010: 510, (6d))</div>

(69) *Want to write, Randy (did) a novel.

<div align="right">(Vicente 2010: 510, (8d))</div>

Given this asymmetric behavior between the gapped string and topicalization, the author claims that ATB-movement analysis of (68) requires an assumption like (70).

(70) Evacuating movements to the periphery of vP are licit if they are followed by either (a) vP-ellipsis or (b) vP-movement to PredP, but not otherwise.

<div align="right">(Vicente 2010: 511, (11))</div>

According to him, the exception in (70b) cannot be assimilated to the processes that license exceptional evacuating movements under ellipsis; i.e. it must therefore be a primitive of the ATB-movement analysis, and then he concludes that vacating material(s) out of the VP/vP is merely an artifact of erroneous treatment of gapping as a case of movement, rather than ellipsis.[49]

In addition to this, Johnson's analysis has another problem with discontinuous gaps like (71).[50]

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[49] Boone (2014: 18-19) also makes the same point on the special condition of ATB-movement. According to this author, the examples in (i) show that movement of the remnant cannot feed the subsequent VP-movement; i.e. topicalization of a VP without movement of the direct object is grammatical (ia), whereas movement of the direct object prior to VP-topicalization leads to ungrammaticality (ib).

(i) a. John said he would photograph Mary and [$_{VP}$ photograph Mary]$_i$ he did t_i.
   b. *John said he would photograph Mary and [$_{VP}$ photograph t_j]$_i$ he did [Mary]$_j$ t_i.

Since evacuating material out of the VP prior to VP-movement is a crucial ingredient of the ATB-movement analysis of the complex gaps, the contrast shown in (i) constitutes a clear piece of evidence against it. In fact, this kind of counterargument is valid for not only Johnson's analysis but also any kind of analysis that assumes movement of the remnants, after which deletion is somehow forced.

[50] More examples of this sort are provided in the literature, as can be seen in (i).

(i) a. Max seemed to be trying to force Ted to leave the room, and Walt [~~seemed to be trying to force~~] Ira [~~to leave the room~~].
   <div align="right">(Jackendoff 1971: 25)</div>
   b. Arizona elected Goldwater Senator, and Pennsylvania [~~elected~~] Schweiker [~~Senator~~].
   <div align="right">(Jackendoff 1971: 24)</div>
   c. Jack begged Elsie to get married, and Wilfred [~~begged~~] Phoebe [~~to get married~~].
   <div align="right">(Jackendoff 1971: 24)</div>
   d. John took Harry to the movies, and Bill [~~took~~] Mike [~~to the movies~~].
   <div align="right">(Sag 1976: 218)</div>

(71) a. Some gave albums to their spouses, and others ___ tapes ___.

b. Some put plants in their office, and others ___ art ___.

c. John worded the letter carefully, and Mary ____ the memo ____.

d. Max paints barns red, and Bill ____ houses ____.

e. Betsy rolled the dough flat, and Sam ____ the butter ____.

(Johnson 1996/2004: 8, (11a-e))

Let us first see how these examples could be derived under Johnson's analysis. For instance, the sentence in (71a) would have the derivation in (72) by means of rightward adjunction of the remnants followed by VP-movement to [Spec,PredP].[51]

(72)
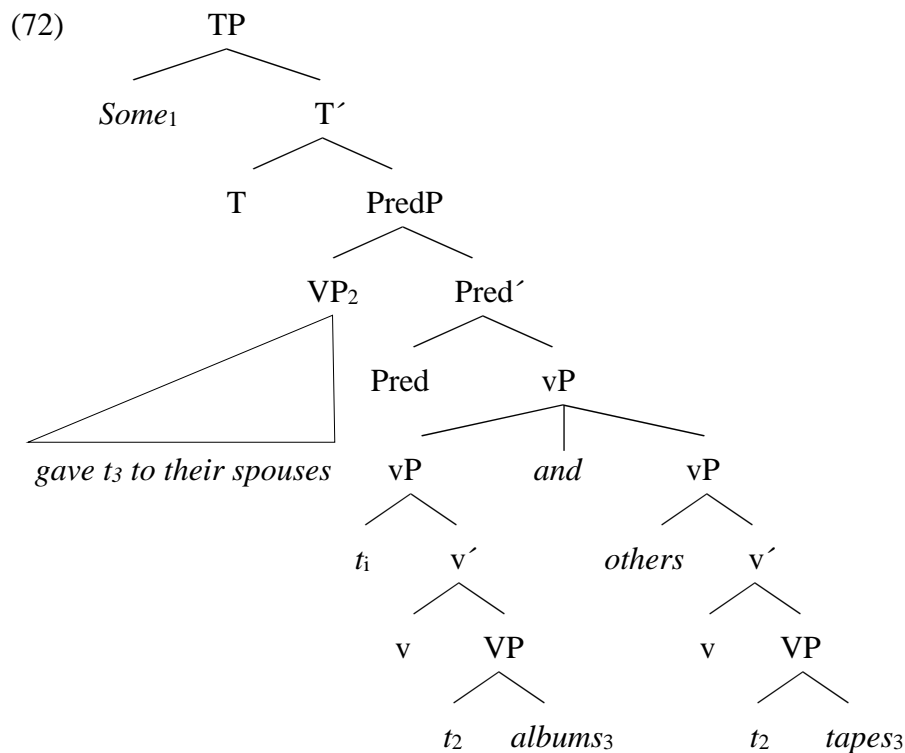
e. John persuaded Dr. Thomas to examine Mary, and Bill [~~persuaded~~] Dr. Jones [~~to examine Mary~~]. (Sag 1976: 225)

f. Joe covered the floor with red paint, and Alice [~~covered~~] the walls [~~with red paint~~]. (Neijt 1979: 79)

g. Joe painted his boat red, and Alice [~~painted~~] her car [~~red~~]. (Neijt 1979: 79)

h. Some people want all doors to open to the left and others [~~want~~] all windows [~~to open to the left~~]. (Neijt 1979: 160)

[51] This representation is based on Johnson's (2009) analysis where both the remnants and their correlates undergo rightward adjunction (rather than leftward scrambling in his earlier versions). The argumentation of the text does not hinge on leftward/rightward movement.

However, this derivation does not yield the output in (71a) but the one in (73), which is totally ungrammatical.

(73)　*Some gave to their spouses albums and others, tapes.[52]

　　　(cf. Some gave their spouses albums and others, tapes)

---

[52] If the remnants undergo leftward scrambling, as in Johnson (1996/2004), we will have the same result. In Johnson (1996/2004), he notes that "one of the peculiarities of the double object construction is that the two DPs may not end up in reverse order. Unlike (181a)'s alternate in (181b), there is no alternate for (182a) like (182b) (Johnson 1996/2004: 76)"

(i)　a.　　She gave the book to Henry.
　　b.　　She gave to Henry the book.　　　　　　　　　　　　　　　　　(his (181))

(ii)　a.　　She gave Henry the book.
　　b.　　*She gave the book Henry.　　　　　　　　　　　　　　　　　(his (182))

Although his observation for the contrast between (iia) and (iib) is surely correct, it is not generally assumed that (ib) is a variant of (ia) as such and acceptable in English dative *to*-construction. I think Javier Ormazabal for making this point. Note that in general, HNPS is allowed only when the NP/DP is heavy, as in (iii).

(iii)　a.　　*Some gave t_i to their spouses albums$_i$.
　　b.　　Some gave t_i to their spouses [those albums that contain the pictures of their honey moon]$_i$.
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　(My example)
　　c.　　Anne gave __ to Bill a present she had bought him.
　　　　　　　　　　　　　　　　　　　　　　　　　　(Hudson 1992: 256, (14b))
　　d.　　Bill will give __ to John a book which I decided to recommend for the literary prize.
　　　　　　　　　　　　　　　　　　　　　　　(Rizzi and Shlonsky 2006: 10, (27))

Returning to the discussion on Johnson's analysis, consider now the following example of gapping in DOCs.

(iv)　　??John gave Mary a book, and Bill __ Susan __.

For those native speakers who I have consulted, (iv) is not so good as its dative counterpart in (v).

(v)　　John gave a book to Mary, and Bill __ __ to Susan.

Johnson (1996/2004) considers that gapping is possible in DOCs if the gap is continuous (vi).

(vi)　　Some gave the men nuts and others ~~gave the men~~ chocolates.
　　　　　　　　　　　　　　　　　　　　　　　　　(Johnson 1996/2004: 29, (81))

He analyzes (vi) as follows. The Theme argument of each conjunct first undergoes leftward scrambling, and then the Goal argument undergoes ATB-movement to a position above the low-coordination, and finally the remnant VP moves to [Spec,PredP]. However, as I have mentioned before, movement of the Theme in both conjuncts produces illicit representation, namely *[$_{vP}$ *some nuts$_i$ gave the men t_i*] *and* [$_{vP}$ *others chocolates$_i$ gave the men t_i*], as well as the subsequent ATB-movement of the Goal; *[$_{XP}$ *the men$_j$* [$_{vP}$ *some nuts$_i$ gave t_j t_i*] *and* [$_{vP}$ *others chocolates$_i$ gave t_j t_i*]. That is, it seems that Johnson's analysis (of gapping in (vi)) must somehow allow all those instances of disallowable movement. Why should this be so? Johnson does not explain why those movements can be allowed in the context of gapping. Notice that in English DOCs, ATB-movement of the Goal (over the whole coordination) is not generally allowed; *The men$_i$, [*some gave t_i nuts and others gave t_i chocolates*]. This sentence as such is totally ungrammatical for my informants of English. But it should be allowable as an intermediate process of Johnson's analysis. It is interesting why (iv) is not so acceptable as (v). In any case, Johnson (1996/2004, 2009) does not discuss this kind of discontinuous gaps attested in English DOCs.

According to Hartmann (2000: 154),[53] Johnson (1994) provides the derivation in (74) for the discontinuous gap in (71a). This derivation involves a lot of movement operations such as (i) ATB-movement of the verb to T°, (ii) movement of the lowest VP from the first conjunct to a position adjoined to VP-coordination, (iii) the objects of both conjuncts are scrambled to the inner [Spec,VP] below the subject, and finally (iv) the scrambled object of the first conjunct undergoes further movement to [Spec,YP].

(74)
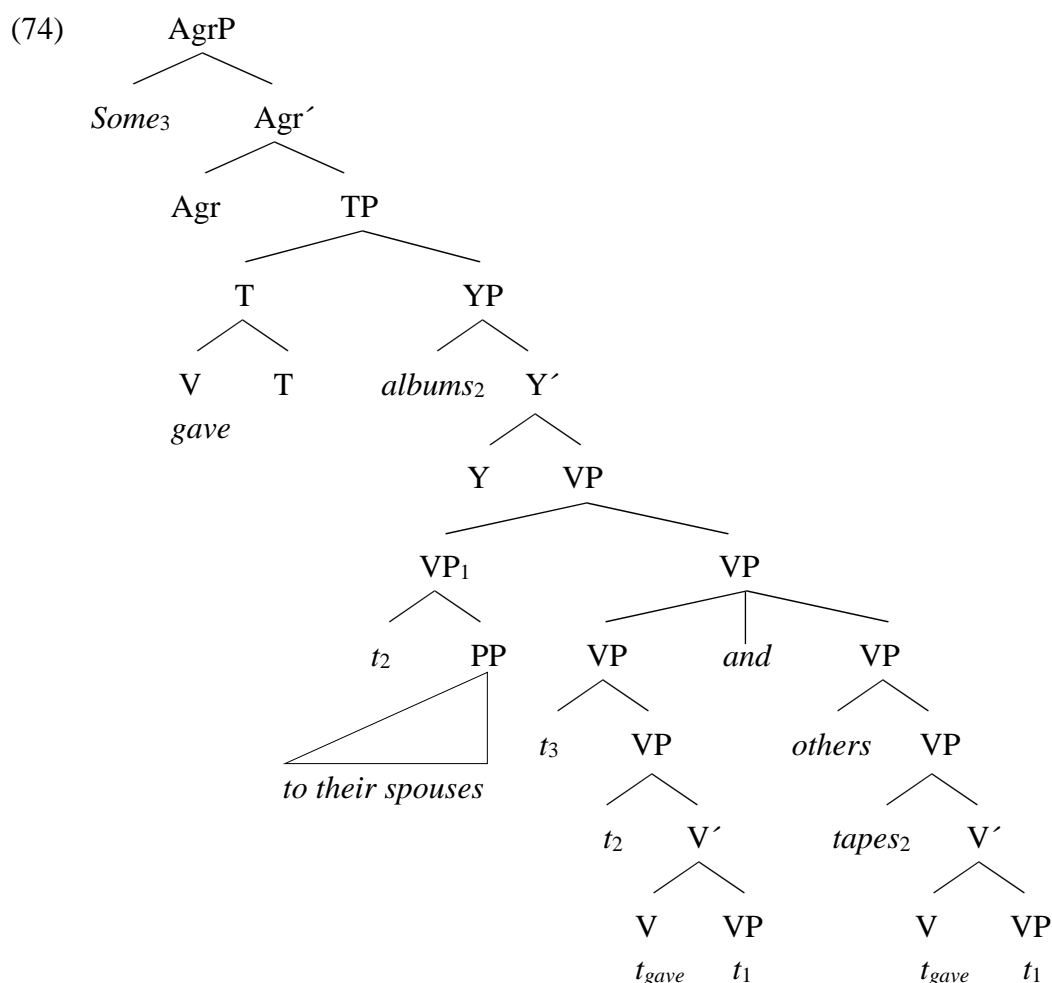
However, as you may easily notice, the general problem of this derivation is that it involves too many complex and unmotivated operations. First of all, movement of the lexical verb to T° is not justified in languages like English since Emonds (1976) and Pollock (1989), a.o. In addition, it is unclear why in this case only, the VP undergoes adjunction to VP-coordination, contrary to what happened in (63) (or (64)) where the VP has been moved

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[53] This tree structure is taken from Hartmann (2000: 154, (21)) who takes it from Johnson (1994, (151)). As mentioned before, I have read all Johnson's papers on gapping, but I could not find anywhere that kind of analysis. Thus, in the text I describe such analysis following Hartmann's representation.

to [Spec,PredP]. Finally, it is by no means clear what is (or could be) the trigger of object movement to [Spec,YP] from the first conjunct and how such movement overcomes the CSC, given that it is a clear instance of A'-movement. This is because the first object shift (into the inner specifier of the VP) in each conjunct is A'-movement and thus further raising to [Spec,YP] from the first conjunct cannot be A-movement; if it were the case, it would create an improper movement configuration, *A-A'-A.[54] In summary, without mitigating these matters in some way, it is hard to believe that the sentence in (71a) is indeed derived by the way illustrated in (74).

There is an additional problem in Johnson's analysis, in particular where he states that ATB-movement requires the identity and thus the VPs undergoing ATB-movement must be identical to each other. In Johnson's representation of VP in (63) (or (64)) in which the trace of the object remnant is contained in each conjunct's VP, it must be noted that the two VPs could be considered identical only if the different traces count as identical. To begin with, this kind of identity cannot be attributable to LF, precisely because at the point of derivation at which Johnson counts that two VPs are identical, there is no access to LF: a look-ahead problem. Under Johnson's (1996/2004, 2009) analysis, it might be the case that the two VPs containing different traces are identical if indices (of the traces) are not crucial for identity.[55] However, the story is completely different under modern conception

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[54] Johnson (1996/2004) shows only cases where A-movement is immune to the CSC. To my knowledge, no one has showed that A'-movement is also immune to the CSC. Given this situation, the problem is that in (74), A'-movement of the object of the first conjunct in violation of the CSC has not been justified so far. Note that even if (74) were correct for the representation of (71a), the remaining question is why only in this case, the old version (in 1994) of his analysis with ATB-movement of V and scrambling of the remnant should be resuscitated. Remember that since Johnson (1996/2004: 86) he argues that both the simple and the complex gaps are incorporated into a single analysis by ATB-movement of the VP. I consider that the analysis provided in (74) is nothing more than a purely artificial case of ATB-movement. Notice that his latest version (in 2009) has no way to account for (71a) because the remnant (i.e. the direct object) undergoes rightward adjunction, so that we never get the sequence of DO-IO but always of IO-DO. In addition, rightward movement is not considered to be successive cyclic in a sense that, once an XP is right-adjoined to YP, it does not further move: adjunction is not successive cyclic. What is more, if it undergoes leftward movement to [Spec,ZP] from a position right-adjoined to YP, it is more problematic than before: an XP moves first to the right and then moves to the left; this kind of movement does not exist in natural language, as far as I can tell.

[55] Fiengo and May (1994) argue that vehicle change in (i) is allowed in ellipsis constructions (ii). They state that "in a reconstruction, a nominal can take any syntactic form so long as its indexical structure (type and value) is unchanged (Fiengo and May 1994: 218)"

(i)   *Vehicle Change*
        R-expressions in the antecedent clause seem to be able to match pronouns in the ellipsis clause.

(ii)   Bill$_i$ will wash his$_i$ car, and Mary$_j$ will ___ too.
        (i) 'Bill$_i$ will wash his$_i$ car, and Mary$_j$ will wash his$_i$ car'   (*Strict reading*)
        (ii) 'Bill$_i$ will wash his$_i$ car, and Mary$_j$ will wash her$_j$ car'   (*Sloppy reading*)

of movement. For instance, if we assume either the Copy Theory of movement (Chomsky 1993, 1995; Chomsky and Lasnik 1993; Nunes 1995, 1999, 2001, 2004, a.o.) or the Remerge Theory of movement (Bobaljik 1995; Gärtner 1997, 2002; Epstein, Groat, Kawashima, and Kitahara 1998; Collins 2001; Zhang 2004; Johnson 2010, a.o.), contents of the two VPs cannot be identical but clearly distinguishable at the point at which the VP of both conjuncts undergoes ATB-movement, as illustrated in (75).

(75)   …
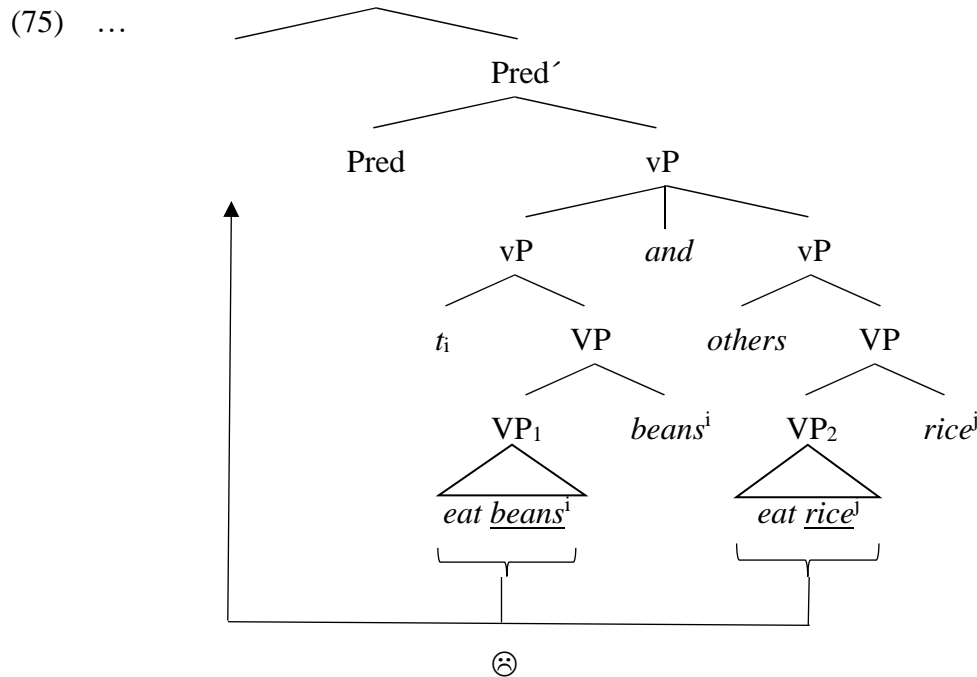
As in this dissertation I follow the Copy Theory of Movement, according to which a moved element leaves a copy (rather than a trace), I contend that the VP-movement proposed in Johnson's analysis is conceptually problematic and thus cannot be sustained under the current conception on movement (of any constituent).[56]

In Johnson's analyses, the traces of the remnants, which are moved out of the VP, bear indices with number (cf. (74)), so that their indexical structure is unchanged; e.g. both VPs contain t_2. In fact, Fiengo and May propose an identity condition of nominal expressions in VPE with specific reference to indices. For instance, if a pronominal expression bears α-occurrences in the antecedent VP, the corresponding pronoun in the ellipsis VP also must bear the identical indexical type and value; i.e. the identity condition on VPE is stated in terms of the identity of the indexical structure at LF. Because Johnson himself does not clarify the identity he employs, it is not clear whether his analysis assumes 'Fiengo and May'-style identity (or not).

[56] The VP-movement may also be problematic if we assume that English V° moves at least up to v°. Note that in Johnson's representation of VP-movement (in (64)), as it stands, the v° is in fact stranded in each conjunct. This cannot be allowable if we assume that v° is an affixal head (as well as other T° (or C°)): Lasnik's (1981) SAF. In the case of 'V-to-v' movement, what undergoes ATB-movement should be the vP (and not VP), and for this to properly work, it must be assumed that the subject of each conjunct must be also moved out of the lower segment of the vP. But again, the problem here is that the trace of the subject *others* of the second

As observed in § 2.1.2, the wide-scope reading of negation (or modal auxiliaries) is straightforwardly accounted for under low-coordination approaches to gapping. However, as Repp (2009) notes, there are cases where only the first conjunct is affected by negation (76).

(76) Pete wasn't called by Vanessa but (rather) John by Jesse.

 'Pete was not called by Vanessa but (rather) John was called by Jesse'

(Repp 2009: 84, (3.2))

Although it is true that in gapping, the negation can take either wide-scope or narrow-scope, by theory, low-coordination predicts that the negation cannot scope over only one of the conjuncts in coordination. However, this prediction is not borne out, as shown by the interpretation in (76). Johnson's ATB-movement analysis has no viable way to explain such interpretation of negation affecting only the first conjunct of (76). The same criticism can be applied to both Coppock's (2001) and Toosarvandani's (2015, 2016) analyses, as they also employ low-coordination for gapping.[57]

Similarly, there are cases where the narrow-scope interpretations of the auxiliaries are possible in gapping, as shown in (77). Kubota and Levine (2016: 115) for example point out that Johnson himself, referring to such data, simply says that "these cases might arise because gapping has removed the negation from the second conjunct … (Johnson 2009: 298, fn10) without further explanation".[58] For example, the narrow-scope reading in (77ii) should involve a derivation like (78) where each vP-conjunct must contain both the modal *can* and the negation *not*, along with the verb *live*, and then all these three elements will undergo ATB-movements.

(77) Mrs. J cannot live in LA and Mr. J ___ in Boston.

 (i) 'It cannot the case that Mrs. J lives in LA and Mr. J lives in Boston'

 (ii) 'Mrs. J cannot live in LA and Mr. J cannot live in Boston'

(Kubota and Levine 2016: 116, (12))

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conjunct cannot be identical to *some* of the first conjunct under the theory of movement I am assuming in this dissertation.

[57] In chapter 3, I will show another case of this sort from Spanish gapping where this time only the second conjunct is affected by negation, complicating additionally Johnson's analysis.

[58] Note that Johnson himself admits at this point that the existence of the narrow-scope reading of negation suggests that gapping involves high-coordination (rather than low-coordination).

(78)

```
                    AgrP
                     |
                    Agr´
          _____/|_____
        Agr´       Conj         Agr´
       /   \        …          /    \
     Agr    TP              Agr      TP
      |      \               |        \
     can     NegP           can       NegP
              |                         |
             Neg´                      Neg´
            /    \                    /    \
          Neg    VP                 Neg    VP
           |    /  \                 |    /   \
          not Mrs. J  V´            not Mr. J  V´
                     /  \                     /  \
                    V    …                   V    …
                    |                        |
                   live                     live
```
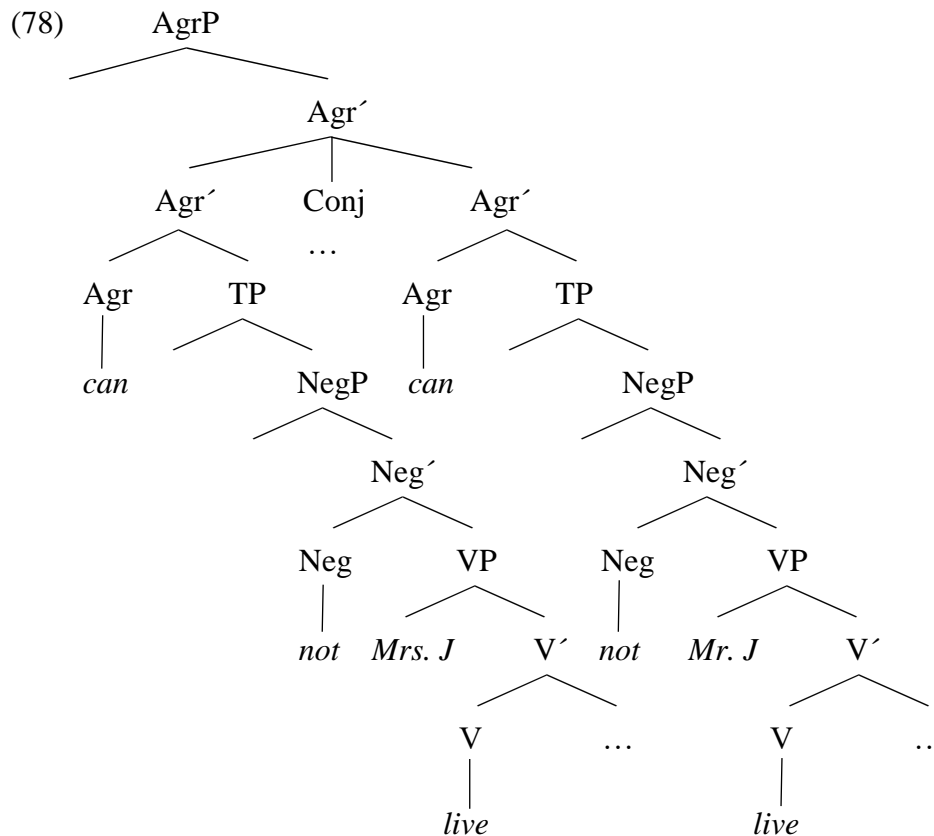
(Kubota and Levine 2016: 116, (13))

As Kubota and Levine claim, the problem of the configuration in (78) is: where could the landing sites of *can*, *not*, and *live* be if they are assumed to undergo ATB-movement separately?[59] Furthermore, according to these authors, as Johnson himself does not explain further, it remains to be verified how ATB-movements of those elements can yield the right ordering among *can*, *not*, and *live* after movement.

An additional problem is that, if we follow the current Agree-based approach to Case assignment and φ-feature valuation (Chomsky 2000, 2001), Johnson's analysis will be problematic whenever the subjects of both conjuncts have different φ-features (79). This is

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[59] The representation in (78) is not from Johnson's original analysis. Following his suggestion (Johnson 2009: 298), Kubota and Levine consider that the narrow-scope reading of (77) must involve a derivation like (78). Adhering to this issue, I would like to reinforce Kubota and Levine's claim in the following way. If Johnson (2009: 298) is right in that all those elements are somehow ATB-moved, then, they should be reconstructed later into their original positions at LF in an ATB-fashion; e.g., for the narrow-scope interpretation. However, Bošković and Franks (2000), a.o. show that there is no ATB-movement at LF for reconstruction. Accordingly, Johnson's (2009: 298) suggestion cannot be feasible in the beginning since his analysis must have recourse to ATB-lowering at LF of the three elements that had previously undergone ATB-movement in overt syntax.

because in this case we have φ-feature mismatches at the point at which Agree applies in an ATB-fashion (80).[60]

(79) *They* ate beans and *he* ___ rice.[61]

(80) [TP T[φ: ___] …[vP *they*[φ:3.PL, CASE: NOM] …] and [vP *he*[φ:3.SG, CASE: NOM]…]].

$\{\checkmark\text{Case}, \checkmark\varphi\}$ $\{\checkmark\text{Case}, \times\varphi\}$
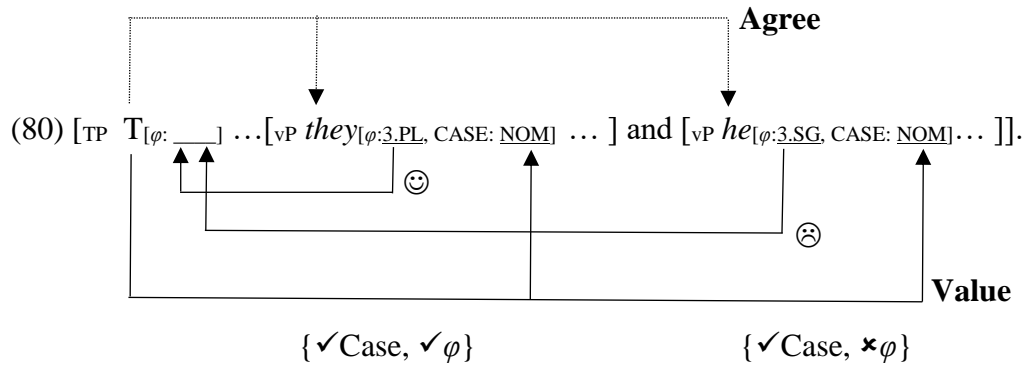
In a Multiple Agree configuration like (80), it seems that Johnson's analysis (or any other variant based on low-coordination) must assume that for some reason, T° will value its φ-features only from the DP of the first vP-conjunct, yielding thus (81a), and not (81b).

(81) a. ^{OK}T[φ: 3.PL] [vP … DP[φ:3.PL, Case: NOM] …] & [vP … DP[φ:3.SG, Case: NOM] …]

      b.   *T[φ: 3.SG] [vP … DP[φ:3.PL, Case: NOM] …] & [vP … DP[φ:3.SG, Case: NOM] …]

Why should this be so? Surely by virtue of Multiple Agree for Case assignment, T° enters into an Agree relation with the subjects of both conjuncts, but where for unknown reason, unvalued φ-features of T° cannot be valued by the subject of the second vP-conjunct, though

---

[60] Recall that under low-coordination, the Multiple Agree (or the "Sharing" in Johnson 1996/2004) is the only way to assign (structural) NOM Case. The inconvenience addressed in the text can be extended to any other low-coordination approaches to gapping.

[61] According to my informants, the example in (i) (taken from Hudson 1989: 61) is perfectly grammatical.

(i)   *He* likes her, and *she*, __ him.

Therefore, by extension, (79a) should be acceptable as well. If so, the argumentation of the text suggests that there must be T° in each conjunct of gapping, which in turn implies a high-coordination (rather than low-coordination). In fact, the φ-feature valuation is problematic independently of Case assignment. Consider (i).

(i)   [TP *Susan*$_i$ ate$_j$ [vP t_i t_j beans] and [vP *Bill* t_j rice]].

In this example, both *Susan* and *Bill* are assumed to bear NOM Case, but they differ from each other as far as φ-feature is concerned; the former is [3.SG.FEM], whereas the latter is [3.SG.MASC]. Thus, the same problem happens if they get Case and value their φ-features by means of Multiple Agree. Of course, this kind of inconvenience does not happen if each conjunct has its own T° for the purpose of Agree with a single goal.

the subjects of both conjunct are essentially equidistant to T° for syntactic operations related to it.[62]

2.2.2.　　Gapping as sideward movement of V

Agbayani and Zoerner (2004) implement Johnson's (1994) ATB-movement of the verb in terms of sideward movement. They draw from proposals in Nunes (1999, 2001), and Nunes and Uriagereka (2000) where the authors propose the possibility of sideward movement both out of the coordinate structures and adjunct clauses. Agbayani and Zoerner essentially follow this idea and apply it to the analysis of gapping (and pseudogapping).[63] To grasp the derivation by sideward movement, let me briefly introduce how it works in syntax.

The term "sideward movement" refers to a configuration where a given constituent moves from a syntactic object K to another independent syntactic object L (Nunes 2001: 303). According to this author, the computational system of minimalism allows copying α from K and merging it with L, as illustrated in (82).

(82)　a.　　$K = [\ \dots\ \alpha\ \dots]$

　　　　　$L = [\ \dots\ ]$

　　b.　　*Copy*:

　　　　　$K = [\ \dots\ \alpha^i\ \dots]$

　　　　　$L = [\ \dots\ ]$

　　　　　$M = \alpha^i$

---

[62] *Equidistance*
Terms of the edge of HP are equidistant from probe P.

(Chomsky 2000: 122)

Notice that the gist of Hiraiwa's (2001, 2005) Multiple Agree is that the Agree relation between the probe α and the multiple goals β and γ is *derivationally simultaneous*, so that it would be unclear how T°'s unvalued φ-features could be valued only by the subject DP of the first vP-conjunct, ignoring somehow the second vP-conjunct's subject DP; i.e. it seems that there is no Multiple Agree but ordinary Agree relation between T° and the subject of the first vP-conjunct.

[63] These authors argue ultimately that both gapping and pseudogapping have the same derivation by sideward movement; i.e. they try to unify pseudogapping with gapping rather than VPE, partly due to the observation that "both constructions serve a similar discourse function (different altogether from VPE); e.g., to contrast VP-internal elements across two clauses (Agbayani and Zoerner 2004: 187)". They attribute this observation to Levin (1986). I will not review their analysis of pseudogapping since it is beyond the scope of this dissertation, though I partially share with their insight on some unified analysis of both ellipsis constructions.

c. *Merge*:

$$K = [\ldots \alpha^i \ldots]$$
$$P = [\alpha^i \, [_L \ldots]]$$

Since Agbayani and Zoerner do not provide a detailed analysis of gapping; i.e. they analyze pseudogapping in terms of sideward movement of V and then suggest that gapping would involve the same derivation as pseudogapping, in what follows I will present the derivation of gapping by sideward movement, following their suggestion.

Under this analysis, gapping in (83) involves the following derivational steps.

(83)   Robin ate beans, and Kim ___ rice.

In the derivational working space, there are two root (and unconnected) syntactic objects K and L (84a). The lexical verb *eat* is copied from L (84b), and then it merges with the object DP *beans* in K, forming a VP-structure (84c).[64] This movement is a Last Resort operation: there is only one lexical verb *eat* in the numeration, and according to Agbayani and Zoerner, to license two nominal elements, namely *beans* and *rice* in both conjuncts, the verb must undergo sideward movement from one conjunct to the other during the derivation.

(84)   a.

K= DP   L= VP

beans   eat   rice

b.

DP   VP

eat^i   beans   eat^i   rice

"Copy"

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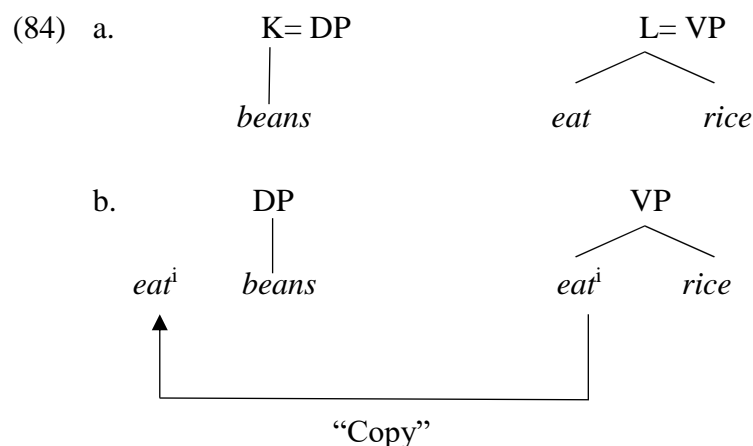
[64] This process basically follows what they state: "we have seen, though, that we can capture the similarities between the two from the fact that they both involve verb raising and ATB-movement (here analyzed as sideward movement), while capturing the important differences with the claim that *in Pseudogapping, sideward verb movement proceeds from an adjunct clause, whereas in Gapping it proceeds from a vP conjunct* (Agbayani and Zoerner 2004: 198) (The italic highlight is mine)"

c.

VP: eatⁱ beans — "Merge"
VP: eatⁱ rice

The derivation continues: in each conjunct, the VP will merge with v, after which both vP-conjuncts merge, forming a coordinate structure (i.e. vP-coordination). Additionally, the lexical verb of the first vP-conjunct moves further to Asp°. This movement, as stated by Agbayani and Zoerner, is inspired by assuming that in English, the verbs in general undergo movement up to the functional head Asp°, but not as high as (e.g. to T°), differently from languages like Italian and Spanish. They state that verb movement to Asp° is motivated by the categorical feature [+V] of Asp°, which triggers the movement in question.

Finally, when the Copy Deletion applies to both the Chain$_1$ {eat^i in Asp° and eat^i in V$_1$} and the Chain$_2$ {eat^i in Asp° and eat^i in V$_2$}, only the highest copy (i.e. eat^i in Asp°) survives the Copy Deletion and will be pronounced at PF.

The result of all these fundamental derivation steps is illustrated in (85).

(85)

TP
— Robin$_j$
— T´
  — T
  — AspP
    — Asp´
      — Asp: eat^i
        — "2° Verb movement" →
      — vP
        — vP
          — t$_j$
          — VP
            — V: eat^i
            — beans
        — and
        — vP
          — Kim
          — VP
            — V: eat^i ← "3° Copy deletion"
            — rice
      — "1° Sideward movement"

59
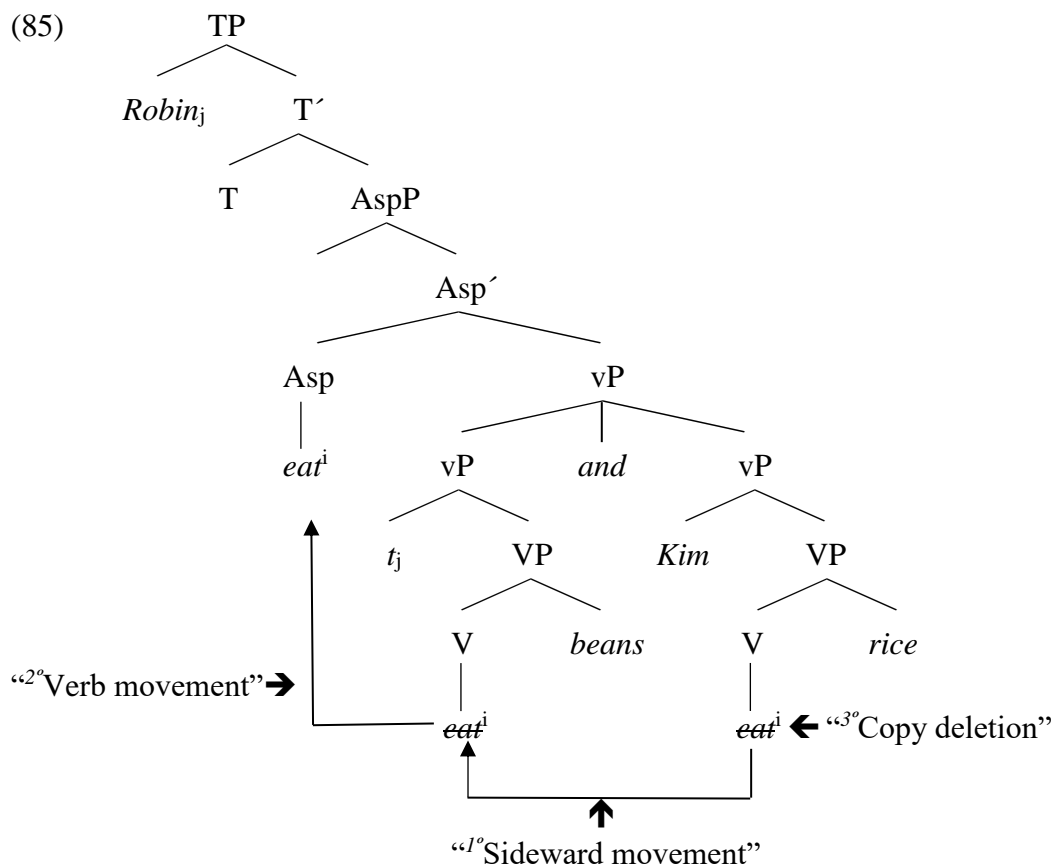
The analysis of gapping in terms of sideward movement has the advantage of eliminating the ATB-formalism, as in Nunes' (2001) account of English parasitic gap constructions.[65] That is, in essence what actually happens in gapping, as well as in outward form, is that the verb undergoes single rather ATB-movement under Agbayani and Zoerner's analysis.

Agbayani and Zoerner also note that the low-coordination assumed in their analysis can explain why gapping requires non-coreferential subjects (86).

(86)   *Pat_1 loves mysteries, and {Pat_1/she_1} Δ romances   (Δ=*loves*)

(Agbayani and Zoerner 2004: 188, (9))

They state that "this result comes not from deletion but rather from movement. It falls out under the standard binding theory of Government & Binding (Reinhart 1976, 1983; Chomsky 1981, 1986; Reinhart and Reuland 1993) (Agbayani and Zoerner 2004: 188)".[66] That is, the subject *Pat* of the first conjunct from its final landing site (i.e. [Spec,TP]) c-commands the subject *Par/she* of the second conjunct, so that this will violate Condition B (87a) and Condition C (87b), respectively.

(87)   a.   *Pat_1 loves mysteries, and she_1 Δ romances.   (Condition B)

         b.   *Pat_1 loves mysteries, and Pat_1 Δ romances.   (Condition C)

Although they explain the non-coreferentiality in terms of c-command, this cannot be extended to cases like (88), where in Spanish gapping, we see both Condition B (88b) and Condition C (88c) violations, even though the subject of the first conjunct does not c-command the subject of the second conjunct, as illustrated in (89).

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[65] This author mentions that in his analysis of parasitic gap constructions, sideward movement has conceptual virtue over traditional ATB-movement, stating that "to the extent that this analysis succeeds, it allows ATB-extraction to be treated as standard cyclic movement (see section 3) and to dispense with the ATB-formalism (Nunes 2001: 338)". As to the analysis shown in (85), if we assume that the v^o is also sideward-moved from one conjunct to the other, then we may explain why gapping does not allow voice mismatch. This is because both conjuncts have the same v^o, so that the voice value of each conjunct has no choice but to be identical.

[66] In fact, this argument is also valid for other low-coordination approaches to gapping, such as Johnson (1996/2004, 2009), Coppock (2001), and Toosarvandani (2015, 2016).

(88) a. [María compró un libro], y [(yo) creo que Luisa Δ un disco].

María bought a book and (I) think that Luisa a disk

'María bought a book, and I think that Luisa a disk'[67]

b. *[Maríaᵢ compró un libro], y [(yo) creo que ellaᵢ Δ un disco].

María bought a book and (I) think that she a disk

c. *[Maríaᵢ compró un libro], y [(yo) creo que Maríaᵢ Δ un disco].

María bought a book and (I) think that María a disk

(89) *
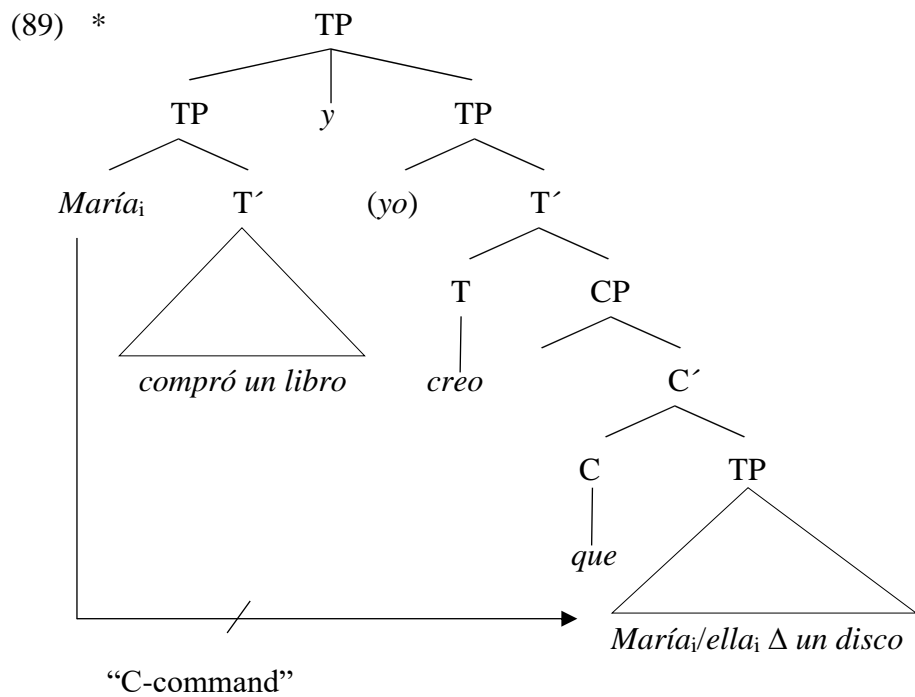
"C-command"

(My representation)

Notice that such possibility of c-command in (86) (or (87)) crucially hinges on the type of coordination. That is, Agbayani and Zoerner's argument can be tenable only if gapping involves low-coordination. However, since (88a) involves high-coordination, as shown in (89), the non-coreferentiality between the two subjects cannot be explained in terms of c-command. In its place, the restriction on the non-coreferentiality between the subjects of both conjuncts can be explained in terms of contrastiveness in gapping (Kuno 1976); i.e. the ungrammaticality of (87) is due to the lack of a suitable contrastive interpretations between the two subjects, e.g., Pat_i of the first conjunct and Pat_i/she_i of the second conjunct are not in a contrastiveness relation, so that it causes the ungrammaticality. The same can

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[67] Note that, as I mentioned in § 1.3.1, this kind of gapping is perfectly possible in Spanish, contrary to English.

be said for (88b-c) where obviously c-command makes absolutely no difference to rule out the sentences.

Agbayani and Zoerner also report that for their informants, ACC Case is more natural than NOM Case for the subject pronoun of the second conjunct. They claim that under their analysis, the ACC Case pattern follows from the fact that the subject DP of the second conjunct is not located in [Spec,TP] on the surface. This claim, however, implies that the presence of NOM Case on the subject of the second conjunct is unexpected and should be banned under Agbayani and Zoerner's analysis, contrary to fact. That is, as seen before (§ 2.1.1), NOM Case is also possible for the subject of the second conjunct.[68]

There are other problems in Agbayani and Zoerner's analysis. First, those problems related to Johnson's ATB-movement (cf. § 2.2) reproduce for their analysis. For example, the narrow-scope reading of negation (or modal auxiliaries) is totally unexpected under Agbayani and Zoerner's analysis, and φ-feature valuation is also puzzling if we adopt the Agree system (cf. (79-81)).

A more serious problem is that if gapping involves merely sideward movement of the verb, Agbayani and Zoerner's analysis faces the problem with complex gaps where the missing portion of the second conjunct involves more elements than the simple verb. As a matter of fact, these authors do not discuss gapping sentences with either continuous (90a) or discontinuous complex gaps (90b). Obviously, this kind of example cannot be analyzed in terms of sideward movement of the verb. For instance, the gapping sentence in (90a) cannot be analyzed in this way, unless we take the cost assumption that the second conjunct of English gapping involves a null object *pro* (or something like that).

(90) a.   Some have served mussels to Mary, and others ___ ___ to Anne.
      b.   Some have served mussels to Mary, and others ___ swordfish ___.

(Johnson 2009: 289, (1))

Given this situation, what we have to do next is to see whether examples like (90) could be derived by means of VP-sideward movement. For instance, if the sentence in (90a) involves that kind of movement, then we have a derivation like (91), where, under the VP-shell structure (Larson 1988, 1990, 1991; Baker 1988, 1997; den Dikken 1995; Ormazabal and

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[68] For those who accept NOM Case, they assume that "there may be feature or LF-movement of the second subject to a Case licensing position outside of VP (Agbayani and Zoerner 2004: 189)". But they do not explain how this works under their analysis.

Romero 2010, 2012, a.o.), the indirect object *to Anne* escapes out of the VP and then the remnant VP [*have served mussels t*_{to Anne}] undergoes sideward movement from the second conjunct to the first.

(91)
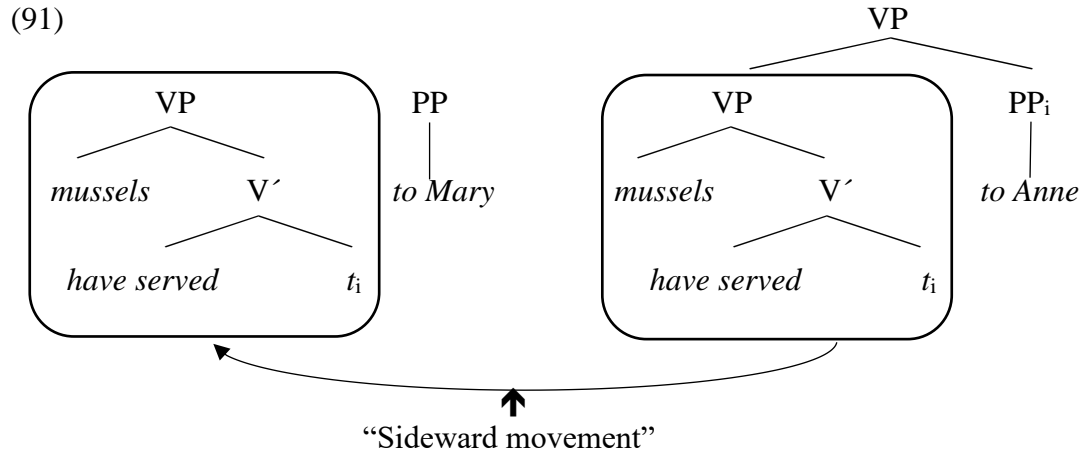
"Sideward movement"

However, this kind of analysis has a number of problems. In Nunes (2001) (and his subsequent works), the operation Copy involved in sideward movement is subject to the Last Resort operation, which is the only possible motivation of such a cross-conjunct movement. Thus, in the case of VP-sideward movement, we should assume that *to Mary* requires a VP as a Last Resort operation. But this does not respect the argument structure of ditransitive; i.e. it is one of the two internal arguments of the verb *serve* under the 'Larsonian' VP-shell structure. To license *to Mary* under sisterhood, it must thus be the lexical verb that undergoes sideward movement. Therefore, merge of *to Mary* with VP is not possible for 'argument-structure' reasons (92).

(92) *
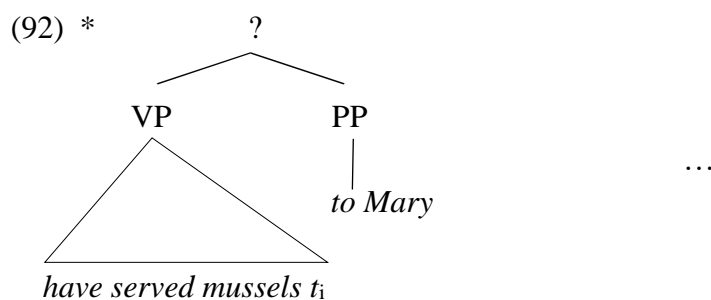
In addition, the supposed VP-sideward movement analysis must also state that the VP, which has sideward-moved from the second conjunct, undergoes further movement to some position over the vP-coordination; otherwise, there will be no legitimate Chains of the copies, which ultimately causes the failure of the Chain Reduction and Copy Deletion

under c-command.[69] Above all, the most serious objection to the derivation shown in (91) is that, since Agbayani and Zoerner's analysis assumes crucially the Copy Theory of Movement involved in the derivation by sideward movement, there cannot be any trace contained in the VP; i.e. it must be the copy of *to Anne*, so that when the VP merges with *to Mary*, we would have a semantically odd syntactic object; *[??[VP have served mussels to Anne] [PP to Mary]]*. After all things considered, the supposed VP-sideward movement for (90a) is theoretically impossible.

Similarly, the hypothetical VP-sideward movement faces the same problem when analyzing the example in (90b), which involves a discontinuous complex gap. Under that analysis, the sentence in (90b) would have the derivation shown in (93), where the direct object *swordfish* of the second conjunct to be evacuated out of the VP.

(93)

"Sideward movement"
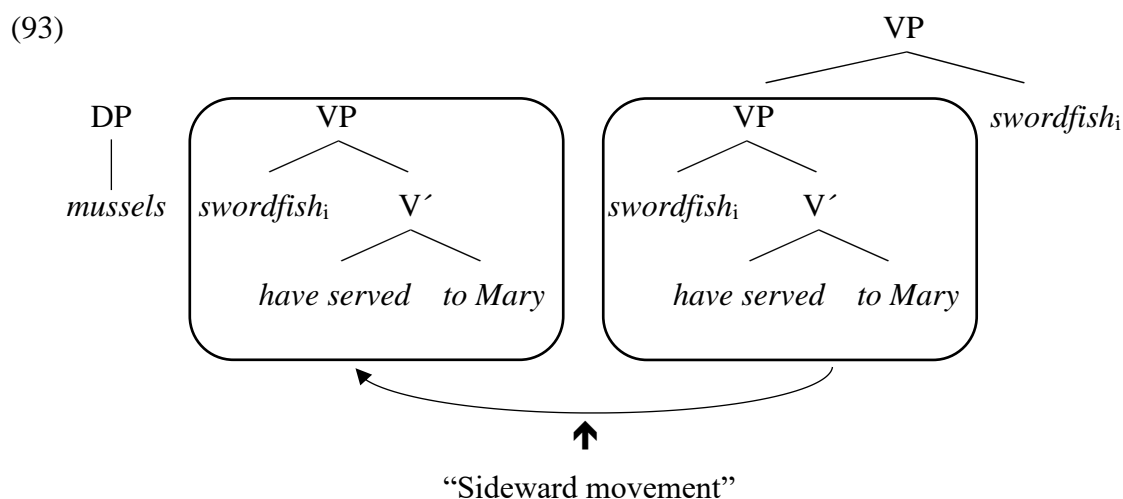
However, the obvious problem is that merge of *mussels* with the VP does not obey the argument structure because it is the lexical verb (and not VP) that *c*-selects the DP in question. For this matter, one might suggest that the V' rather than the VP is what undergoes sideward movement. But such an intermediate projection is known to be "unmovable" in the general cases, in particular under the derivation by Merge.[70]

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[69] The landing site of this movement may be [Spec,AspP], similar to Johnson's ATB-movement of the VP to [Spec,PredP].

[70] If we follow the Bare Phrase Structure (Chomsky 1995) by which an intermediate projection X' can be reinterpreted as X^{max}, the assumed V'-movement should be accommodated theoretically. But even under this conception on the phrase structure, it is not so clear what is (or could be) the motivation for merge of the direct object with V'. In any case, sideward movement of *[V' have served to Mary]* would be the only way to derive (90b) if movement of such portion is allowed across conjuncts.

Alternatively, one might think that (90b) would be derived by a combination of sideward movement of V with another sideward movement of *to Mary* from the second conjunct to the first. However, we can reasonably discard this possibility: contrary to VP-sideward movement, the assumed PP-sideward movement cannot create an appropriate c-command configuration for the Chain Reduction and Copy Deletion. This is because the PP *to Mary* of the first conjunct never moves out of the whole vP-coordination, so that the two copies of the PP in both conjuncts cannot form licit Chains and thus cannot be elided.

All in all, we can reasonably conclude that it is difficult to accept that examples like (90) are derived by VP-sideward movement in a suitable way.[71]

2.2.3.   Gapping as Parallel Merge

More recently, Citko (2012) reinterprets Johnson's (1994) ATB-movement analysis in terms of Parallel Merge (PM) (developed in Citko 2005, 2008, 2011). The term "PM" refers to a new way of structure building, which, Citko and others argue, is available in minimalist syntax and generates structures that share some element(s) (see also McCawley 1982; Levine 1985; Blevins 1990; Phillips 1996; Wilder 1999, 2008; Kasai 2007, 2016; Bachrach and Katzir 2007; Gracanin-Yuksek 2007; Hiraiwa and Bodomo 2008 for this type of structure building from different theoretical perspectives).

The basic process of PM is illustrated in (95) where Citko describes it as "it looks like an "External Merge" in that it involves two distinct root (and unconnected) objects,

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[71] There is a crucial difference between the sideward movement analysis of parasitic gap and the one of gapping. That is, in gapping, the element copied and merged is the lexical V°, whereas it is a DP (i.e. *wh*-phrase) in parasitic gap (as well as other ATB-constructions). Agbayani and Zoerner argue that "the copy and merge of V° into the matrix VP is motivated by Last Resort, since not applying that operation would lead to the non-convergence. Thus, Last Resort forces sideward movement out of an adjunct (Agbayani and Zoerner 2004: 197)". In fact, in Hornstein and Nunes (2002), Copy and Merge of a *wh*-phrase in parasitic gap constructions, viewed now as Last Resort operations, have a clear motivation: argument structure building. Put differently, the *wh*-phrase undergoes sideward movement from the adjunct clause to the matrix clause because the matrix V° requires an object DP (e.g. *wh*-phrase in this case) to build the argument structure (i.e. VP). Nunes (2012: 13) unequivocally mentions that in parasitic gap constructions, sideward movement of a *wh*-phrase from an adjunct clause is a Last Resort operation motivated by θ-requirements of the matrix V° which can license copying of the *wh*-phrase. By contrast, in the case of gapping (as well as pseudogapping), sideward movement of a lexical V° is not motivated by (any requirement of) the object DP. This could be a sort of *c*-selection matter; i.e. verbs *c*-select (argumental) DPs, but not the other way around. This unidirectional *c*-selection might be the reason why there is no case of vP- (or TP-)sideward movement. That is, sideward movement is closely related to the θ-requirements within the vP-structure, as argued by Nunes (2001) for the parasitic gap constructions. In any case, the original motivation of Nunes' sideward movement is far away from Agbayani and Zoerner's analysis of gapping.

namely *α* and *β*, but it is also like an "Internal Merge" in that it combines the two by taking a subpart (i.e. *γ*) of one of them (Citko 2005: 476)".

(94)   *Parallel Merge of β and γ*
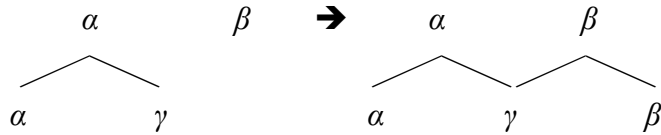
(Citko 2005: 476, (3))

Based on this novel way of Merge, Citko (2012) proposes that gapping in (95) involves the derivation shown in (96), which has the following features: (i) the verb of the first conjunct undergoes head-movement to Pred° (passing through both the v° and the F°), (ii) the subject of that conjunct moves to [Spec,TP] (presumably for the EPP-feature of T°); and (iii) the objects of both conjuncts move to [Spec,FP]. Note that except the last one, the other two premises are basically originated from Johnson's analysis. Note further that in (96), Citko assumes that the subject of the second conjunct undergoes A'-movement to [Spec,FP].[72]

(95)   Some brought roses, and others ___ lilies.

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[72] To be more precise, this analysis involves FP-coordination below the PredP (and TP), which is similar to Johnson's (1996/2004) XP-coordination within the TP (cf. § 2.2.1). Thus, both subject and object movements to [Spec,FP] are roughly the same as leftward scrambling involved in Johnson's analysis. In any case, FP-coordination is also a sort of low-coordination in the sense that it is generated below the TP.

(96)

TP
- Some₁
- T′
  - T
  - PredP
    - Pred′
      - Pred: *brought*
      - FP
        - FP
          - *roses₂*
          - F′
            - F
            - vP
              - t₁
              - v′
                - v
                - VP
                  - V
                  - t₂
        - *and*
        - FP
          - *others₃*
          - F′
            - *lilies₄*
            - F′
              - F
              - vP
                - t₃
                - v′
                  - VP
                  - t₄
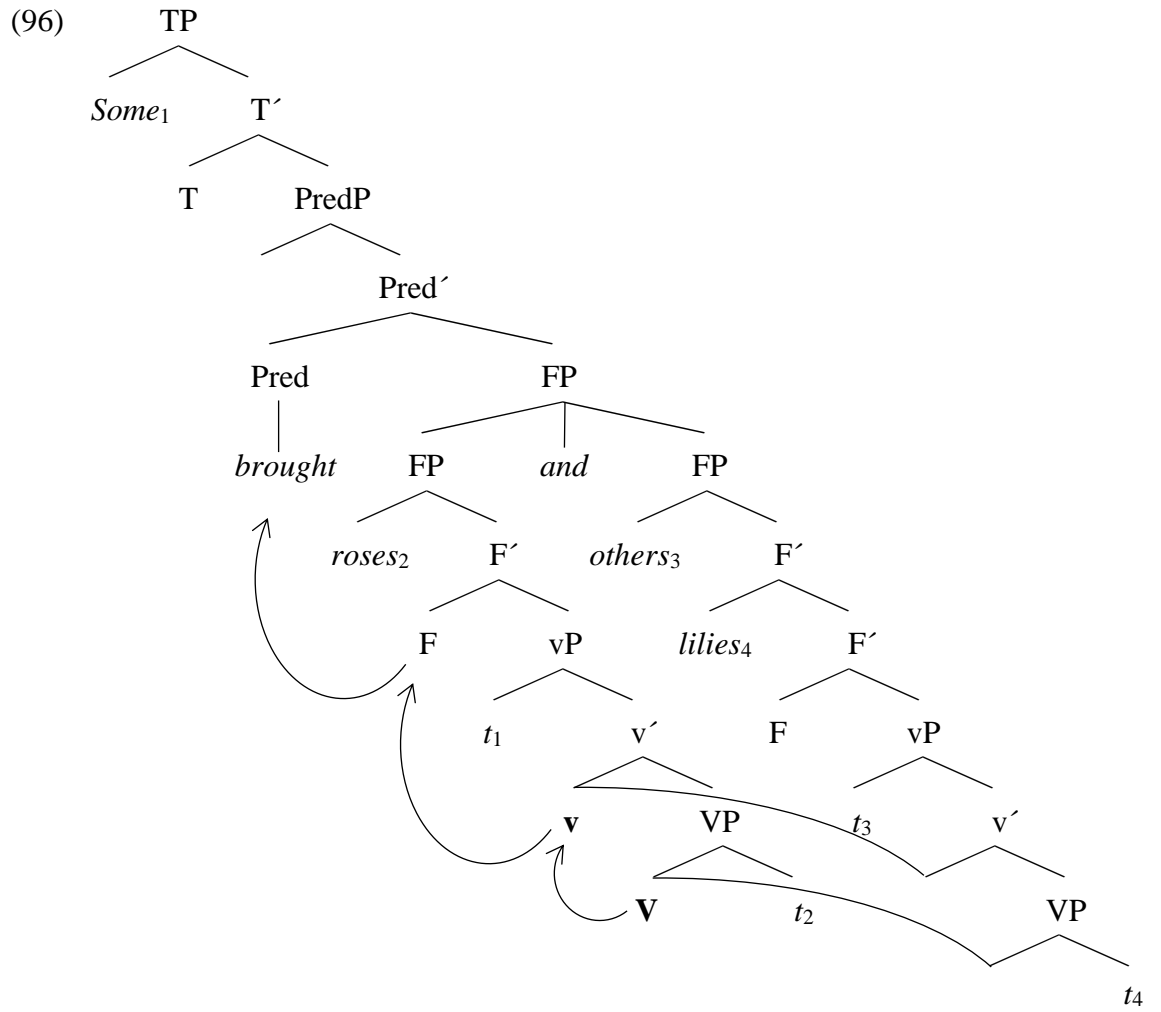
(Citko 2012: 63, (37))

As shown above, the main consequence of this analysis is that both the V° and the v° are shared by the two conjuncts, and thereby gapping does not involve any sort of ellipsis. The crucial motivation that leads Citko to propose the analysis shown in (96) lies in the fact that gapping does not allow voice mismatches (97).

(97) a.   *Passive antecedent clause + Active ellipsis clause*
           *Roses were brought by some, and others Δ lilies.   (Δ = *brought*)
      b.   *Active antecedent clause + Passive ellipsis clause*
           *Some brought roses, and lilies Δ by others.   (Δ = *were brought*)

This empirical fact sharply contrasts with VPE, which allows voice mismatches between the antecedent clause and the ellipsis clause (98) (cf. Merchant 2008).

(98) a. *Passive antecedent clause + Active ellipsis clause*

This problem was to have been looked into, but obviously nobody did Δ.

($\Delta =$ *look into this problem*)

b. *Active antecedent clause + Passive ellipsis clause*

The janitor should remove the trash whenever it is apparent that it needs to be Δ.

($\Delta =$ *removed the trash*)

Under the analysis given in (96), voice mismatches in (97) are naturally expected because the derivation by PM involves $v°$-sharing, excluding the subject, which is generated and located in [Spec,vP]. Since the $v°$ is assumed here to be the head bearing the [voice]-feature (Chomsky 1995; Harley 1995; Marantz 1997; Folli and Harley 2005, 2007, a.o.), sharing of $v°$ correctly predicts that voice mismatches are not possible in gapping.[73]

Citko assumes that, to discard the possibility of sharing only the $V°$, lexical categories such as $V°$ and $N°$ must be category-less roots which obtain their categorical status by merging with $v°$ and $D°$ under the Distributed Morphology view of the Lexicon (Marantz 1997; Embick 1997, 1998a,b; Harley 1995; Harley and Noyer 1998a,b; Alexiadou 1998, etc.). Given this, Citko suggests that, since there is only one verbal root (i.e. *bought*) in (96), only one $v°$ is necessary. She concludes that if the $V°$ is PMed, then $v°$ is too. In this way, Citko justifies why both the $V°$ and the $v°$ are shared by the two conjuncts in (96).[74]

However, there are problems in Citko's analysis. To begin with, those problems I have mentioned before for both ATB-movement and sideward movement reproduce for the

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[73] As Stump (1977) observes, voice mismatches are generally impossible in pseudogapping (ii), which also contrasts with VPE in this respect.

(ii)   *Roses were brought by some, and others did Δ lilies.   ($\Delta=$*bring*)
(Baltin 2012: 401, (56))

Merchant (2008) argues that the crucial difference between VPE and pseudogapping in allowing voice mismatch (or not) resides in different ellipsis sites; i.e. VPE involves vP-deletion, whereas pseudogapping involves VoiceP-deletion. Interestingly, gapping behaves like pseudogapping in that voice mismatch is not allowed. From this similar behavior of pseudogapping and gapping, there arises a question: can this imply that gapping could be analyzed in terms of VoiceP-deletion? I will leave this issue for future research.

[74] Her assumption amounts to saying that if there are two verbal roots, there must be two instances of $v°$. But is unclear why we cannot postulate situations where there are two different verbal roots, namely V_1 and V_2, and only one $v°$, as illustrated in (i).

(i)   a.   John was$_v$ [vP shot$_{V1}$ and killed$_{V2}$]
       b.   He was$_v$ [vP sent$_{V1}$ to the jail and murdered$_{V2}$ there].

analysis shown in (96). For example, it cannot account for the narrow-scope reading of negation (or auxilaries) (99) and it has difficulties in analyzing complex gaps (100).[75]

(99)   Mrs. J cannot live in LA and Mr. J in Boston.
    (i) 'It cannot the case that Mrs. J lives in LA and Mr. J lives in Boston'
    (ii) 'Mrs. J cannot live in LA and Mr. J cannot live in Boston'

(100) a.   Some gave mussels to Mary and others ___ to Anne.
    b.   Some have served mussels to Mary and others ___ swordfish ___.

Concerning scope facts in (99), the low-coordination involved in (96) makes unable to obtain the narrow-scope reading in (99ii), which is compatible only with high-coordination. With regard to sentences like (100), in fact Citko does not discuss complex gaps involved in gapping; i.e. she considers only simple gaps of the sort exemplified in (95). For complex gaps, I observe that there is one possibility of analyzing them under Citko's analysis.

For instance, (100a) may have the derivation shown in (101) where both the direct object *mussels* and the lexical verb *gave* are shared by both conjuncts.

(101)
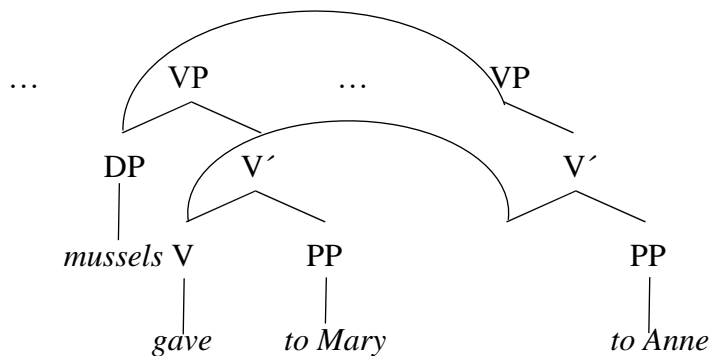
Similarly, (100b) would have the derivation shown in (102) where, along with the verb, the indirect object *to Mary* is shared by the two conjuncts.

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[75] In addition to this, the analysis faces the problem with φ-feature valuation via Multiple Agree, similar to the ATB-movement and sideward movement analyses of gapping.

(102) … VP … VP

```
         VP                    VP
        /  \                  /  \
      DP    V´          DP    V´
       |                 |
   mussels V         PP  swordfish
           |          |
         gave     to Mary
```

At first sight, both (101) and (102) seem to be the potential derivations of (100). In principle, Citko's analysis does not impede sharing of XP, independently of sharing of Xº.

However, this cannot be the case because over-generation problem arises here. For instance, her analysis cannot explain why examples such as (103) are ungrammatical even if one can assume that either the direct object DP (103a) or the indirect object PP (103b) would be shared by the two conjuncts.

(103)   a.   *Some gave mussels to Mary and others sent Δ to Anne.   (Δ=*mussels*)

      b.   *Some gave mussels to Mary and others gave swordfish Δ.   (Δ=*to Mary*)

Under Citko's analysis, the sentence in (103b), for example, would have the representation in (104).

(104)   …   VP   …   VP

```
          VP                     VP
         /  \                   /  \
       DP    V´           DP    V´
        |                  |
    mussels V          PP  swordfish  V
            |           |              |
          gave      to Mary         gave
```

Nothing in principle bans on PP-sharing shown in (104), but the mechanism just provides the ungrammatical output in (103b). In other words, although examples like (103) could involve the PM-derivation, as in (104), they are ungrammatical in the first place. Therefore, the PM-operation itself does not tell us nothing about the reason why the examples in (103) are ungrammatical, compared with that of (100), which is perfectly grammatical.[76]

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[76] To explain the contrast between (101) and (104), it should be stated that sharing of DP (or PP) is parasitic on V-sharing if Citko's analysis really allows both types of sharing illustrated in (102) and (103). If so, then

In addition, it is not clear how terminals could be linearized in both (101) and (102). That is, sharing of DP (or PP) requires further movement for linearization purpose. For example, in (102), *to Mary* cannot stay where it is found, and must be moved out of the vP-coordination; otherwise, it cannot be linearized under c-command. Given this situation, the problem is: to which position could it move? There is no appropriate position available for *to Mary*. Note that even if it moves to some position over the vP-coordination, we will have another problem of word order in the first conjunct; i.e. *to Mary* will be preceding the direct object *mussels*, yielding *some gave to Mary mussels*. However, as mentioned before, this output is totally ungrammatical in the English dative constructions. Therefore, PP-sharing creates complications that cannot be reconciled under any circumstance. The same can be said for (101) without further discussion.[77]

In fact, Citko's analysis shown in (96) has some issues that need to be reconsidered. For example, she assumes that "both the subject and the object of the second conjunct undergo movements to [Spec,FP] due to the topic- and focus-status, respectively (Citko 2012: 63)". If this is the case, the landing sites of movement should be multiple specifiers of the FP. However, I claim that such feature-driven movement cannot be possible for the following reason; i.e. in that case we should assume that the functional head F° has both the [topic]-feature and the [focus]-feature all together. But assigning both features to the same functional head X° is not possible from the point of view of information structure; e.g., an element to be found in [Spec,XP] cannot be topic and focus at the same time.

Finally, it is not fully specified in Citko (2012) why verb movement to Pred° is necessary for her analysis: she just assumes that in English, verbs move to Pred° (in context of gapping). But I suppose that Citko proposes that the shared V°, more concretely, the verbal complex [V°-v°-F°], undergoes movement to Pred° precisely because she assumes that the object DP of the second conjunct also undergoes movement to [Spec,FP]. That is, when the object DP *lilies* moves to that position, we have the problem of LCA; i.e. the shared V°, if it stays in situ, cannot c-command the object DP *lilies* located in [Spec,FP] of the second conjunct. Therefore, the verbal complex [V°-v°-F°] must undergo movement to Pred° under Citko's analysis. The same holds for the object DP *roses* of the first conjunct. If this is right (and I think it is), verb movement to Pred° can be even more motivated;

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the remaining question is why this should be so. In any case, what I am addressing in the text is totally absent in Citko (2012), who does not discuss complex gaps.

[77] The shared verb *gave* must also undergo movement for linearization. But in this case, we can assume that it moves to Pred° above the vP-coordination.

namely by linearizing terminals, regardless of the assumption that in English, verbs raise to Predº, which is by no means easy to justify. Aside from this conjecture I have explored so far, in Citko (2012) it has not been fully stated what is (or could be) the motivation for head-movement of the shared Vº to Predº.

2.3. Conclusion

In this chapter, we have seen that gapping has received two different types of analysis.

The deletion analyses, on the one hand, argue that gapping is an instance of ellipsis and derived by means of movement of the remnants followed by either TP-deletion under high-coordination or VP-deletion under low-coordination. However, it has turned out that this type of analysis has some problems that cannot be easily solved without having to make further assumptions; in particular, it faces the difficulty of explaining complex gaps due to the movement operations involved therein. In addition, although all these analyses pursue a movement-plus-deletion strategy, they do not specify a clear reason for movement of the remnants only in context of ellipsis. Furthermore, high-coordination analyses of gapping leave unexplained the wide-scope reading, which is also possible in gapping sentences.

On the other hand, the non-deletion analyses propose that gapping is nothing more than the result of a special syntactic operation that occurs in low-coordination; i.e. the gap is thus analyzed as a trace of either ATB-movement of VP, sideward movement or the result of head-sharing of both the Vº and the vº. However, it has been convincingly shown in this chapter that none of those analyses was able to account for complex gaps in a satisfactory way due to either complex movement operations they stipulate or limitations of the derivational mechanism itself. In addition, the narrow-scope reading of negation (or auxilaries), which is compatible only with high-coordination, remains unexplained in any sort of non-deletion analysis.

To bridge the gap between the two types of analysis mentioned above, we need some alternative approach that can explain all the properties of gapping in a principled way. In the following chapter, therefore, I will carry out an in-depth investigation in which gapping will be shown as an epiphenomenon of more than one derivation, or at least it should be in the light of the data from the two languages to be discussed in this dissertation.

CHATER 3

GAPPING IN SPANISH

In this chapter, I will focus on Spanish gapping wherein I will first review the previous works (§ 3.1), and then I will provide my proposal and discuss its consequences (§ 3.2).

3.1. Previous analyses

3.1.1. Brucart (1987)

Brucart (1987) is the first analysis of gapping in Spanish. Adopting Chomsky's (1981, 1982) Empty Category Principle (ECP), he proposes that in Spanish gapping, the missing material of the second conjunct is an empty category PRO which is postulated in the position of V, as illustrated in (1).[78]

(1)   Luis juega al   fútbol, y   Pedro [$_{VP}$ PRO al   balonmano].   (PRO= *juega*$_V$)

        Luis plays to.the soccer and Pedro   to.the handball

        'Luis plays soccer, and Pedro, handball'

                                          (Brucart 1987: 86, (40b))

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[78] Within the Government & Binding, many authors (e.g. Zagona 1982, 1986; Napoli 1985; Lobeck 1987; Chao 1988, etc.) proposed the *pro*-form analysis for different types of verbal ellipses.

For complex gaps where the missing portion includes more than the verbal complex (2a), the author proposes that, for there to be a continuous gap, the complement of the verb undergoes rightward movement, after which PRO is posited in the VP (2b). In this respect, we can consider that Brucart's analysis is the precursor of later works employing rightward movement prior to (VP-)ellipsis, as in Jayaseelan (1990) and Lasnik (1999a).

(2) a. Luis enseña gramática a Alejandro, y   María, latín.
         Luis teaches grammar to Alejandro and María Latin
         'Luis teaches Alejandro grammar, and María, Latin'

                                                              (Brucart 1987: 102, (72a))

     b. [$_S$ *María*-INFL [$_{VP}$ [$_{VP}$ PRO] *latín*$_i$]].   (PRO= [$_{VP}$ *enseña t$_i$ a Alejandro*]

                                                              (Brucart 1987: 102, (73))

In a similar way, a gapping sentence like (3a), which involves a complex continuous gap, is analyzed in terms of PRO in VP, as shown in (3b).

(3) a. Luis enseña gramática a Alejandro, y   María, a Luis.
         Luis teaches grammar to Alejandro and María to Luis
         'Luis teaches Alejandro grammar, and María, Luis'

     b. [$_S$ *María*-INFL [$_{VP}$ [$_{VP}$ PRO] *a Luis*$_i$]].   (PRO= [$_{VP}$ *enseña gramática t$_i$*])

In this case as well, the indirect object *a Luis* has moved out of the inner VP into which PRO is posited, assuming a 'Larsonian' VP-shell structure for ditransitive.

   Notice that, although Brucart does not discuss the types of coordination involved in gapping, the fact that he uses the S-node (cf. (2b)), which corresponds to TP (or CP) in current terminology, indicates clearly that he has in mind a high-coordination for Spanish gapping.[79]

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[79] Brucart was not explicit in stating that simple gaps involve high-coordination. But from his representation in (1), we know that the second conjunct is a TP in both simple and complex gaps because the subject is located outside the VP, in tandem with the fact that Brucart's analysis does not assume the VP-internal subject hypothesis (Kitagawa 1986; Koopman and Sportiche 1988/1991; Kuroda 1988, a.o.). Notice however that this does not mean that Brucart's PRO-analysis cannot account for the properties of low-coordination; e.g., the wide-scope reading of negation (or modals). For example, Brucart's analysis might employing the same mechanism, PRO, because postulating it in the position of V (or VP) does not rely on the type of coordinate structures, and therefore his analysis is in principle compatible with both high-coordination and low-coordination.

Although the analysis shown in (2b) was designed to account for discontinuous gaps, rightward adjunction of the second remnant in Brucart's analysis is not well-motivated, similar to other analyses we have previously discussed in chapter 2. That is, under Brucart's analysis, such kind of movement is required only for the purpose of substituting the VP. In fact, Brucart himself acknowledges this problem in his later work, where he states that extraposition of constituents are not justified independently, so that it is not exempt from a certain stipulative characteristic (Brucart 2004: 166).

There is an additional problem in Brucart's analysis. Notice that for this analysis to properly work, one must assume that Spanish does not have verb movement in overt syntax; otherwise, PRO can never target the verb if this has moved out of the VP. This is a necessary assumption for Brucart's analysis, but it is incompatible with the general agreement on syntactic verb movement in Spanish, which is supported by a number of arguments such as adverb placement, subject-verb inversion in *yes/no* questions, subject-verb inversion in direct, indirect, and pseudo *wh*-questions, clitic placement, etc. (see Emonds 1978; Torrego 1984; Pollock 1989; Contreras 1991; Suñer 1994; Ordoñez 1997, a.o.).[80] Since in this dissertation I follow verb movement in Spanish, Brucart's analysis cannot be maintained.[81]

3.1.2. Centeno (2011)

This author proposes a hybrid analysis of Spanish gapping; i.e. she argues that gapping sentences involve invariably low-coordination in which the gap is sometimes the product of ATB-movement, and sometimes, the result of PF-deletion.

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[80] Some authors like Biberauer and Roberts (2008) propose that 'V-to-T' movement is related to the richness of tense morphology in the Romance verbal paradigm. There is a consensus on languages with rich agreement and rich tense inflection, which have both null subjects and 'V-to-T' movement. Since the Spanish verbs have rich tense morphology as well as the language has null subject, it is thus reasonable to say that there is 'V-to-T' movement in overt syntax.

[81] There are other problems related with PRO in the position of V (or VP). For instance, Brucart states that "PRO of the second conjunct withholds θ-roles to its complement (Brucart 1987: 100)". However, it is generally agreed upon that θ-criterion must be satisfied, and thus it is hard to believe that a nominal argument is not assigned θ-role. Similarly, his analysis must also assume that PRO in V (or VP) assigns (ACC) Case to its complement, which is also hard to justify in a principled way. In fact, the PRO-analysis of ellipsis is already old-fashioned; i.e. in the current literature, empty categories such as *pro* and PRO are argued to be the results of PF-deletion process. In the case of *pro*, for instance, some authors like Roberts (2004, 2010), Holmberg (2005), Sheehan (2006), Saab (2012), Duguine (2013), a.o., have proposed that the empty category *pro* is the result of deleting (substructure of the) DP at PF. Similarly, as claimed by Hornstein (1998, 1999, 2001), a.o., PRO in control and raising configurations is the consequence of obligatory Copy Deletion, which is mainly driven by linearization purposes (see also Boeckx and Hornstein 2006). If we follow this up-to-date perspective on empty categories, it can be said that apparatus like PRO does not fit with the current minimalist syntax of ellipsis.

According to Centeno, simple gaps such as (4) involve the derivation shown in (5) where the author, following Johnson (1994), proposes that the lexical verb undergoes ATB-movement to Tº, and the subject of the first conjunct moves to [Spec,TP] to satisfy the EPP-feature of Tº.[82]

(4) Juan come arroz y   Pedro ___ alubias.
     Juan eats   rice   and Pedro   beans
     'Juan eats rice and Pedro beans'

(Centeno 2011: 78, (178))

(5)
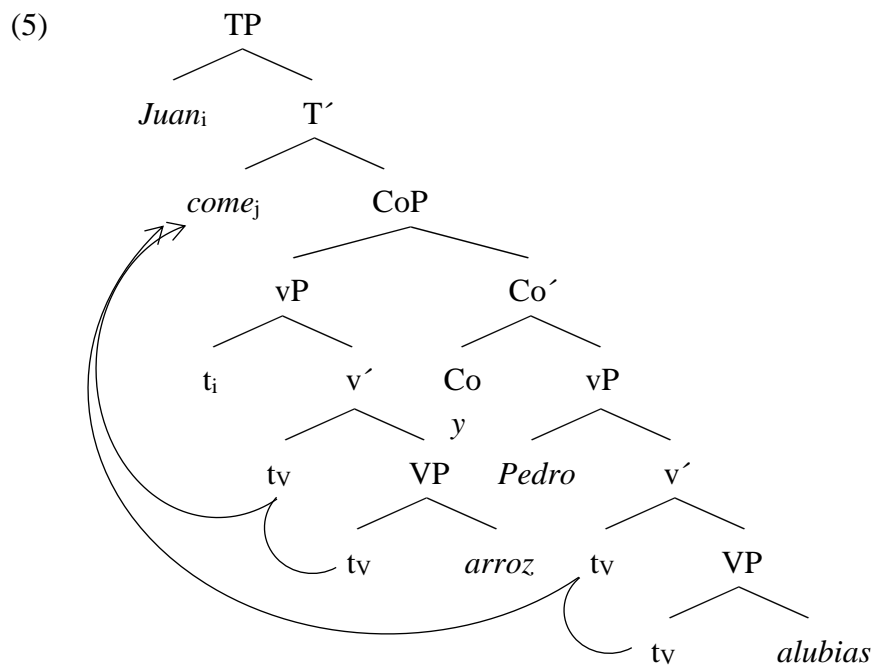
(Centeno 2011: 79, (182))

For complex gaps like (6), on the contrary, she put forth a different derivation like (7), which does not involve ATB-movement but the deletion of the vP, assuming a TopP-coordination at the low-periphery (in the sense of Belletti 2001, 2004), to which the remnants of the ellipsis clause have undergone movement.

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[82] As mentioned in chapter 2, I do not find anywhere Johnson's work supposedly written in 1994. Thus, I am not sure whether he proposes really ATB-movement of the verb to Tº. If we consider Johnson's later works, this is clearly not the case. In the text, I will evaluate Centeno's analysis, which crucially follows Johnson (1994).

(6) Jorge le dio   una flor   a María y   Pedro ___ ___ a Elena.

Jorge CL gave a   flower to María and Pedro   to Elena

'Jorge gave a flower to María and Pedro to Elena'

(7)

To show that examples like (6) involve low-coordination rather than high-coordination, Centeno provides the following contrast in quantifier binding.

(8) a.   Cada chico_i le dio una flor   a María y su_i padre ___ ___ a Elena.

each boy   CL gave a   flower to María and his father   to Elena

---

[83] Centeno represents that v´ is deleted in this structure. However, I think that she made a typo; i.e. considering the syntax of the [E]-feature (of Merchant 2001), what has been elided in (7) should be the vP because it is the complement of Foc_{[E]}.

'Each boy$_i$ gave a flower to María and his$_i$ father ~~gave a flower~~ to Elena'

b.   *Cada chico$_i$ le   dio   una flor   a María, y   su$_i$ padre le   dio   una flor

         each boy   CL gave a   flower to María and his father CL gave a   flower

         a Elena.

         to Elena

         'Each boy$_i$ gave a flower to María and his$_i$ father gave to Elena'

<div align="right">(Centeno 2011: 84, (197) and (198))</div>

The author states that "when the verb and the object are gapped, binding from the top left onto the final conjunct is possible. When the verb and the object are overt in both conjuncts, binding is not possible (Centeno 2011: 84)", and then she concludes that complex gaps such as (6) need to be analyzed through small conjuncts, as illustrated in (7). Centeno also claims that the gapping examples in (9) involve low-coordination in which the negation *no* scopes over both conjuncts (The judgement is her own).

(9)   a.   Juan no había comido alubias y   María ___ bebido champán.

             Juan not had   eaten   beans and María   drunk   champagne

             'Juan hadn't eaten beans and María drunk champagne'

<div align="right">(Centeno 2011: 56, (97))</div>

        b.   María no estuvo enferma y   Juan ___ acatarrado.

             María not was   sick   and Juan   with.a.cold

             'María wasn't sick and Juan with a cold'   (Centeno 2011: 58, (102))

        c.   María no quiere ir al   cine   y   Pedro ___ al   teatro.

             María not want   go to.the movies and Pedro   to.the theatre

             'María doesn't want to go to the moves and Pedro to the theatre'

<div align="right">(Centeno 2011: 60, (108))</div>

According to this author, since the wide-scope reading of negation (or modals) is an indication of low-coordination, examples like (9) indicate that gapping in Spanish involves small conjuncts.

      However, there are a number of problems in Centeno's analysis. The main problem is that her analysis is not empirically motivated. Specifically, it is not clear at all why ATB-movement in (5) cannot apply to complex gaps like (6), and why simple gaps in (4) cannot

be derived by PF-deletion shown in (7). For instance, nothing in principle would prohibit the simple gap in (4) to be analyzed as (10).

(10)

```
                    TP
              ┌──────┴──────┐
           Juanᵢ            T´
                      ┌──────┴──────┐
                   comeⱼ           CoP
                            ┌────────┴────────┐
                         TopP                Co´
                      ┌────┴────┐        ┌────┴────┐
                    Top´       Co      TopP
                 ┌───┴───┐      y    ┌────┴────┐
               Top     FocP      Pedroₖ       Top´
                    ┌────┴────┐        ┌────────┴────────┐
                  Foc´       Top      FocP
               ┌───┴───┐          ┌────┴────┐
             Foc       vP      alubiasₘ    Foc´
                    ┌───┴───┐        ┌────────┴────────┐
                   tᵢ       v´    Foc[E]            vP
                        ┌───┴───┐          ┌────────┴────────┐
                       tⱼ       VP        t̶ₖ              v̶´
                            ┌───┴───┐          ┌────────┴────────┐
                           tⱼ     arroz     c̶o̶m̶eₙ           V̶P̶
                                                        ┌────┴────┐
                                                       t̶ₙ        t̶ₘ
```
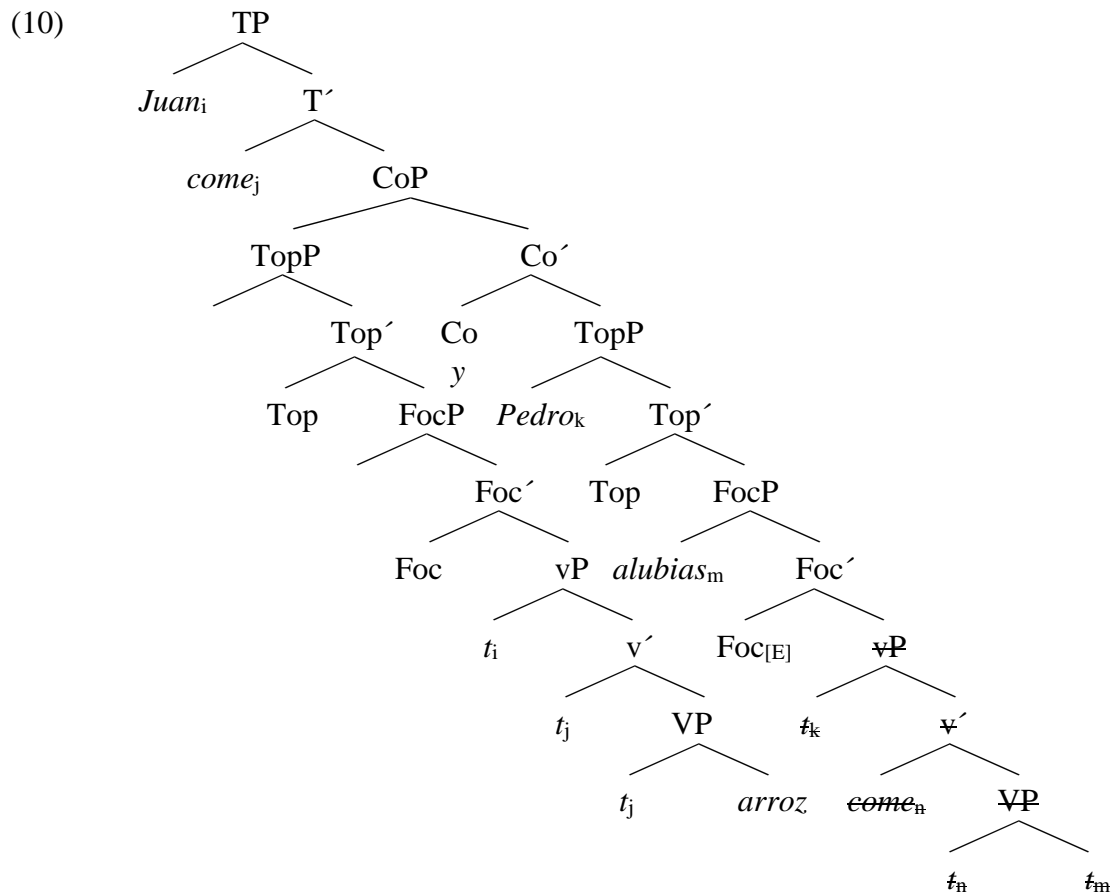
Notice that there is no difference whatsoever between this derivation and the one illustrated in (7). Thus, we could in principle derive both simple and complex gaps by way of one single mechanism; namely the vP-deletion; an approach similar to that adopted for English gapping where, as discussed in § 2.2.1, Johnson (1996/2004, 2009, 2014) argues that both simple and complex gaps are derived by ATB-movement of VP.

Similarly, there is no obvious reason why complex gaps such as (6) cannot be analyzed in the way illustrated in (4). That is, the complex gap shown in (6) could involve the derivation in (11) in which the verb undergoes ATB-movement to T°, and then the vP of the second conjunct is deleted at PF.[84]

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[84] In this configuration, it should not be considered that the combination of ATB-movement and vP-deletion fed by movement of the remnants is complex than Centeno's original analysis shown in (7). This is because both apparatuses are available under her analysis and thus using both in (11) does not create complexity.

(11)

```
                    TP
            Jorgeᵢ        T´
                   le dioⱼ      CoP
                          TopP              Co´
                     Top´      Co    TopP
                  Top   FocP    y   Pedroₖ   Top´
                       Foc´          Top      FocP
                    Foc    vP            a Elenaₘ   Foc´
                       tᵢ     v´           Foc₍ₑ₎      v̶P̶
                          tⱼ    VP            t̶ₖ        v̶´
                       una flor  V´              tⱼ       V̶P̶
                            tⱼ     V´         u̶n̶a̶ ̶f̶l̶o̶r̶   V̶´
                               tⱼ   a María      tⱼ      t̶ₘ̶
```
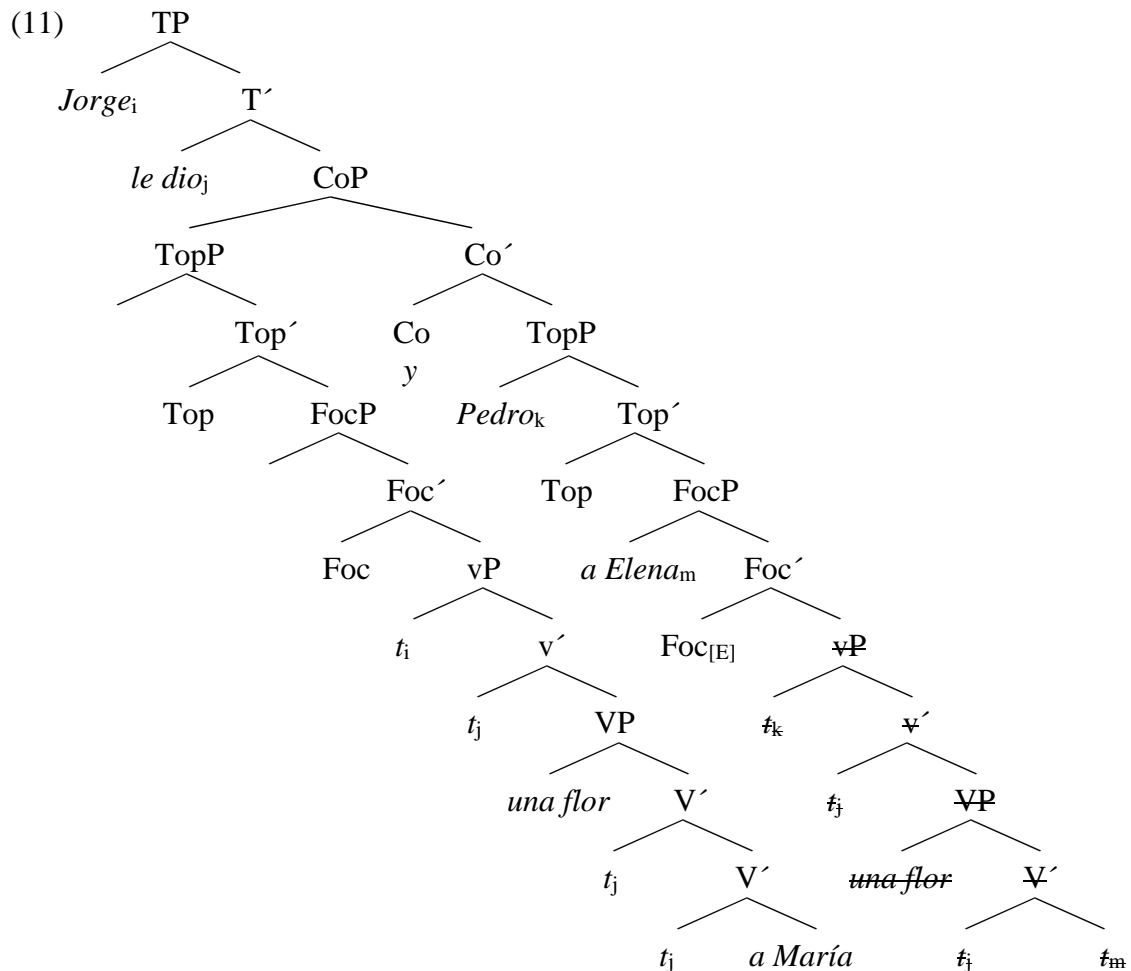
In short, there is no independent motivation of hybrid analysis for Spanish gapping.

In addition, there are other problems for the analyses proposed in (5) and (7). The first one is that in both analyses there is no way to satisfy the φ-feature valuation of the subjects when they involve different φ-features. Consider the example in (12) in which the subject of the first conjunct is 3rd person singular and the one of second conjunct is 1st person plural. For cases like these, the single T° involved in both (5) and (7) cannot value the two different φ-features of the subjects even under the Multiple Agree (cf. § 2.2.1).

(12) *Juan* come arroz y *nosotros* ___ alubias.
       Juan eats rice   and we   beans
       'Juan eats rice and we beans'

This is because it is conceptually impossible to assume that a single T° bears two different (uninterpretable) φ-features.

Second, for both the analysis in (5) and the one in (7), Centeno states that the subject of the first conjunct undergoes movement to [Spec,TP] to satisfy the EPP-feature of T°. However, this movement is controversial unless we have independent evidence for such movement in languages like Spanish, compared with English where the obligatory subject movement is motivated independently. And it is also superfluous if we follow Alexiadou and Anagnostopoulou (1998), who argue that in Romance languages like Spanish, the EPP-feature of T° is satisfied by verb movement itself.[85] This is the widely-accepted perspective on Spanish, which displays postverbal subjects in VSO/VOS sentences where the subject is certainly not located in [Spec,TP] (Olarrea 1996; Ordoñez 1998, 2000, 2007; Zubizarreta 1998; Barbosa 2009; Gallego 2010, 2013; Lopez 2012, a.o.). Since in Centeno's analysis the verb undergoes ATB-movement to T° (cf. (5) (or (7)), the EPP-requirement does not have to be satisfied by subject movement. Therefore, the obligatory subject movement in (5) is speculative and lacks any firm evidence. In addition to this, under Centeno's analysis, subject movement to [Spec,TP] is totally obligatory due to the EPP feature of T°, so that it wrongly predicts that word orders other than 'SVO & SO' cannot be observable in Spanish. However, this cannot be the case because, as mentioned in § 1.3.1, Spanish allows various word orders such as 'VSO & SO', 'VOS & OS', and 'OSV & OS', all of which are possible in gapping but underivable under Centeno's analysis (see § 3.2.2.1).[86]

Furthermore, the analysis shown in (7), as it stands, does not specify what kind of role(s) the TopP and the FocP have in the first conjunct, compared with those projections in the second conjunct. That is, they are projected there just to keep the parallelism of the coordinate structure. Specifically, both the subject and the object of the first conjunct have not undergone movement to the low-peripheral positions, contrary to what happens in the second conjunct. If we follow Rizzi (1997) in noting that topic and focus are part of the syntactic structure only when they are active, the representation of the first conjunct in (7) is totally mysterious. Notice that what happens in the first conjunct of (7) is crucial for her analysis. This is because if the remnants were moved to the low-periphery, we could not have the correct word order between the verb and its arguments in the first conjunct. Having

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[85] Ormazabal and Romero (2016) propose that in Spanish *se*-passive and *se*-impersonal constructions, the clitic *se* is the subject and undergoes movement to [Spec,TP], arguing that those constructions can be included in their derivational analysis of double objects and dative constructions. If they are right in that *se* undergoes obligatory movement to [Spec,TP], it could be viewed as an instance of EPP-movement. However, they do not say that this has to do with the EPP-feature of T°; it is related to Case reasons. Thus, in Spanish, subject movement to [Spec,TP], if any, is far from the EPP-movement in English.

[86] Here I am not saying that EPP-related movement is totally absent in Spanish: as will be discussed in § 3.1.2. in some cases of Spanish gapping, there is optional subject raising to [Spec,TP].

said that, if movement to [Spec,TopP] (or [Spec,FocP]) is feature-driven to satisfy the unvalued feature of Topº (or Focº), as usually assumed in the literature (Horvath 1981, 1986, 1995, 2010; Rizzi 1997, 2001, a.o.), a configuration like (7) is impossible because those features remain unsatisfied in syntax.[87]

There is also a problem with the data Centeno provided in support of her analysis. All the speakers consulted agree that there is no contrast at all in quantifier binding shown in (8); i.e. the examples illustrated in (8) are deviant with or without ellipsis. Examples like (9) are not acceptable either for native speakers. Notice that the example in (9c) can be acceptable only if there is a substantial prosodic break between the two conjuncts, but in this case the sentence has only the narrow-scope reading. Notice that if this is the case, then Centeno's main claim on Spanish gapping would be destroyed because the narrow-scope reading is incompatible with the low-coordination involved in her analysis. In fact, both the analysis in (5) and the one in (7), as they stand, cannot give an account of narrow-scope reading, which clearly indicates that there must be high-coordination (see § 3.2). In addition, as will be shown in § 3.2.2, such analyses cannot take into account the properties of high-coordination in Spanish gapping.

3.2. The non-unity of Spanish Gapping

To fill the gap between the previous analyses where some properties of Spanish gapping are either left unexplained or cannot be accounted for within such analyses, in what follows I will propose that there are indeed two types of Spanish gapping with different syntactic

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[87] As for the low-periphery in (7), I would like to note that Belletti does not show that movement of XP to the low-peripheral position is also possible in contexts other than Right Dislocation (RD) and the so-called *emarginazione* "marginalization" in the sense of Antinucci and Cinque (1977). That is, all the examples Belletti discussed in that work are of the sort illustrated in (ia), which is analyzed as (ib) by the author.

(i)   a.   Ha comprato MARÍA, il   giornale.
            has bought   MARY   the newspaper

(Belletti 2004: 24Bb-27)

        b.   [[IP e_i *ha comprato e_j*]kTOP [[*MARIA*]iFOC] [[*il giornale*]jTOP]…IPk

From this, however, it is hard to conclude that in the general cases objects can also undergo movement to the low-periphery; i.e. such possibility of object movement to that periphery mainly depends upon the analysis of RD. Belletti does not extend this kind of movement to contexts other than RD (or *emarginazione*). Thus, it seems that proponents of movement to the low-periphery followed by PF-deletion misunderstand the insight of Belletti. Note that the analysis given in (ib) is only one of the various options with which RD can be analyzed; i.e. if Belletti's analysis fails for some reasons, movement to the low-periphery should be untenable in the first place.

and prosodic properties. This proposal thus calls for a heterogeneous approach to gapping in Spanish, in which I will argue that the presence of a prosodic break (or lack thereof) between the two conjuncts serves as an indication to differentiate one type of gapping from the other, and the prosody and intonation patterns are also in some way associated with different syntactic structures involved in Spanish gapping.[88] According to this approach, not all instances of gapping involve the same source (from either low-coordination or high-coordination) (see Valmala 2016).

The basic paradigm of the heterogeneous approach is described as follows. When there is a prosodic break between the two conjuncts of gapping, which is represented below by a comma, only the narrow-scope reading of negation is acceptable, as shown in (13a). On the contrary, when there is no such prosodic break, then, only the wide-scope reading is satisfactory, as illustrated in (13b).

(13)   a.   Juan no puede comer marisco, y   María carne de cerdo.
            Juan not can   eat   seafood and María pork meat
            (i) 'John can't eat seafood, and Mary can't eat pork meat'
            (ii) *'It is not the case that John can eat seafood and Mary can eat pork meat'
       b.   Juan no puede comer marisco y   María carne de cerdo.
            Juan not can   eat   seafood and María pork meat
            (i) *'John can't eat seafood, and Mary can't eat pork meat'
            (ii) 'It is not the case that John can eat seafood and Mary can eat pork meat'

The existence of the two different scope readings in (13) is a clear indication that gapping in Spanish must have different derivations. Assuming that different semantic interpretations come from only different syntactic structures, and in no other way (cf. Chomsky 1965), I will propose that gapping in Spanish involves two different types of coordination, and each type provides a different scope interpretation; i.e. the two sentences in (13) have different derivations, and from there two scope readings arise. As mentioned in chapter 2, one of the

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[88] The Spanish SVO has the prosodic pattern [S ↗ V ↘ O] (cf. Hualde 2002, a.o.). This falling contour at the final constituent conforms with the language's focus pattern and the Nuclear Stress Rule (Zubizarreta 1998); S V [O], where the bracket refers to the focused phrase and the underlying represents the element that receives nuclear stress. In psycholinguistic studies of English gapping, some authors like Carlson (2001) and Hoeks *et al* (2002, 2009) argue that experiment results from reaction time and gender decision time show that non-structural factors such as context and prosody have strong and independent effects on both off-line preferences and on-line processing of the gapping sentences. Accordingly, there is a close correlation between gapping and prosody (see also Hartmann 2000 for the role of prosody in both RNR and gapping).

main problems of the previous research on gapping was that the low-coordination analyses have focused only on explaining the wide-scope reading, putting aside the narrow-scope reading undiscussed, whereas the high-coordination analyses have completely disregarded the issue with scope facts. Thus, we need somehow to reassess scope facts in a principled way, as they have been and are still being crucial for the analysis of gapping.

Furthermore, contrary to the single coordination approach to Spanish gapping, in fact there are also cases where gapping in Spanish involves high-coordination. Examples like (14) show that they cannot involve low-coordination because there is no way to coordinate the first conjunct with the second, which is embedded into its own matrix clause "I think that …"

(14) a. Alfonso robó las esmeraldas, y (yo) creo que Musgy ___ las perlas.[89]
          Alfonso stole the emeralds   and (I) think that Musgy   the pearls
          'Alfonse stole the emeralds, and I think that Mugsy stole the pearls'

      b. Luis aseguró que Juan compró   un libro,
          Luis assured that Juan bought.3.SG a   book

          y   yo creo que María ___una revista.
          and I   think that María   a   magazine

          'Luis assured that John bought a book, and I think that Mary ~~bought~~ a
           magazine'

---

[89] Fernández (2016a,b) points out that there is a restriction on the types of the matrix verb that embeds the second conjunct; namely factive *vs* non-factive predicates. He states that, like Brucart (1987) (cf. § 1.3.1.1), the sentence in (i) is not acceptable, contrary to (13a) (The example is taken from the author).

(i)   *Juan ha leído Middlemarch, y   Susana sabe   que Pedro ~~ha leído~~ Hard Times.
         Juan has read Middlemarch and Susana knows that Pedro ~~has read~~ Hard Times.
         'Juan has read Middlemarch and Susana knows that Pedro Hard Times'

However, according to my informants, similar examples like (ii) are perfectly acceptable.

(ii)   Juan se va a MIT, y   nosotros sabemos que María ~~se va~~ a UCONN,
        Juan CL go to MIT and we   know   that María ~~CL go~~ to UCONN
        así que en este año no   podemos contratarlos   como PIC.
        so that in this year NEG we.can   contract.them as   PIC
        'John will go to MIT, and we know that Mary ~~will go~~ to UCONN, so that we cannot contract them
         as our PIC in this year'

Although it seems true that factive verbs cannot be appropriate in context of embedded gaps, examples like (14a) still suggest that embedded gaps are possible in Spanish and thus cast doubt on the validity of the "No-Embedding Constraint". In this dissertation, I will not discuss further the factivity in gapping.

Notice that it is also possible for Spanish to have an embedded antecedent if the second conjunct involves an embedded gap, as in (14b) where the antecedent of the gap appears in an embedded clause.

This fact clearly contrasts with English gapping where, for instance, the counterpart of (14a) is ungrammatical, as shown in (15).

(15)   *Alfonse stole the emeralds, and I think that Mugsy ~~stole~~ the pearls.

(Hankamer 1979: 19, (23)))

Hankamer (1979) explains the ungrammaticality of (15) by claiming that English gapping is subject to the "No-Embedding Constraint", according to which neither the gap nor its antecedent can appear within embedded clauses. [90] To formally account for this fact, Johnson (2014) formulates the constraint as follows.

(16)   *No Embedding Constraint*

Let A and B be conjoined or disjoined phrases, and β be the string elided in B whose antecedent is α in A. Then α and β must contain the highest verb in A and B.

(Johnson 2014: 7, (22))

Since this constraint is claimed to be the result of the syntax of low-coordination involved in gapping (Johnson 1996/2004, 2009; Toosarvandani 2015, 2016), the prediction is that if gapping of a language does not show such constraint, it does not involve low-coordination. While this prediction is borne out in English, it cannot be the case for Spanish because, as seen above, both the embedded gap (14a) and the embedded antecedent (14b) are perfectly

---

[90] In English, the antecedent of the gap cannot appear in embedded clauses (i).

(i)   *I think that Alfonse stole the emeralds, and Mugsy ~~stole~~ the pearls.

(Hankamer 1979: 20, (25))

Notice that this sentence is fine but in another sense. Hankamer (1979) states that the example in (16b) is grammatical only in the case in which the so-called "Conjunction Reduction" (CR) takes place, making two sentences to be directly conjoined. According to this author, sentences like (i) "… cannot be interpreted as coming from an underlying sentence where *I think that Alfonse stole the emeralds* is conjoined directly with *Mugsy stole the pearls* (Hankamer 1979: 20)". In short, the example in (i) cannot have an underlying structure like (iia) but (iib).

(ii)   a.   *I think that [Alfonse stole the emeralds and Mugsy ~~stole~~ the pearls].
          b.   [I think that Alfonse stole the emeralds] and [~~I think that~~ Mugsy ~~stole~~ the pearls].

possible in this language.[91] This means that such restriction is not related to the type of coordination involved in gapping, contrary to the expectations of Johnson's (1996/2004) analysis, where he crucially argues that the embedded gap and the embedded antecedent are impossible in English gapping due to the syntax of low-coordination. In short, examples like (14) indicate that the "No-Embedding Constraint" is not operative in Spanish gapping, and thus the derivations of (14) do not involve low-coordination, given that such constraint is only the result of the syntax of low-coordination.

With this in mind, let us now look more closely at how we can account for the heterogeneous nature of Spanish gapping in a principled way.

3.2.1.   Low-coordination gapping

The first type of gapping which I will call hereinafter "Type-I" does not have a prosodic break between the conjuncts, and there is no falling contour right before the object of the first conjunct, as illustrated in (17) where the agreement on the verb of the first conjunct can be either cumulative (or plural) (17a) or non-cumulative (or singular) (17a). I propose that this type of Spanish gapping involves low-coordination, and the sentences in (17a-b) have different derivations shown in (18a) and (18b), respectively.

---

[91] The correlation between the "No-Embedding Constraint" and gapping does not exist in other languages. For instance, Farudi (2013: 101-189) shows that in Persian, gapping does not obey this constraint, as can be seen in (i). Thus, this fact casts doubt on the existence of low-coordination involved in the derivation of (i).

(i)   a.   Mâmâm châyi <u>xord</u>   va fekr   mi-kon-am   [bâbâ ___ qahve]
              mom   tea   eat.PST.3SG and thought IMPF-do.PRS-1SG dad   coffee
              'Mom drank tea, and I think dad drank coffee'

                                                                              (Farudi 2013: 76)

       b.   Fekr   mi-kon-am   [ke Ânâhitâ châyi=ro <u>xord</u>]   vali Giti
              thought IMPF-do.PRS-1SG that Annahita tea=ACC eat.PST.3SG but Giti
              qahva=ro ___.
              coffee=ACC
              (i) 'I think that Annahita drank tea, but Giti drank coffee'
              (ii) 'I think that Annahita drank tea and that Giti drank coffee'

                                                                              (Farudi 2013: 84)

In fact, examples such as (ib) are two-ways ambiguous in Persian (and other languages as well, as far as I can tell). That is, the interpretation in (ibii) can be obtained from a derivational situation where the entire embedded coordinate structure into the matrix clause, and therefore it is immaterial for the discussion of the text. In contrast, the possibility of the interpretation in (ibi) demonstrates clearly and unambiguously that Persian gapping is not subject to the "No-Embedding Constraint", contrary to what happens in English.

(17) a.   No puedo   comer yo marisco y   María carne de cerdo.[92]

            NEG can.1.SG eat   I seafood and María pork meat

            (i) *'I can't eat seafood and Mary can't eat pork meat'

            (ii) 'It is not the case that I can eat seafood and Mary can eat pork meat'

            <u>Prosodic representation</u>: [S ↗ V (* ↘) O & S → O ↘]

    b.   No   podemos comer yo marisco y   María carne de cerdo.

            NEG can.1.PL eat   I   seafood and María pork meat

            (i) *'I can't eat seafood and Mary can't eat pork meat'

            (ii) 'It is not the case that I can eat seafood and Mary can eat pork meat'

            <u>Prosodic representation</u>: [S ↗ V (* ↘) O & S → O ↘]

(18) **Type-I gapping**:

    a.   *Low-coordination plus PF-deletion/*ATB-movement*
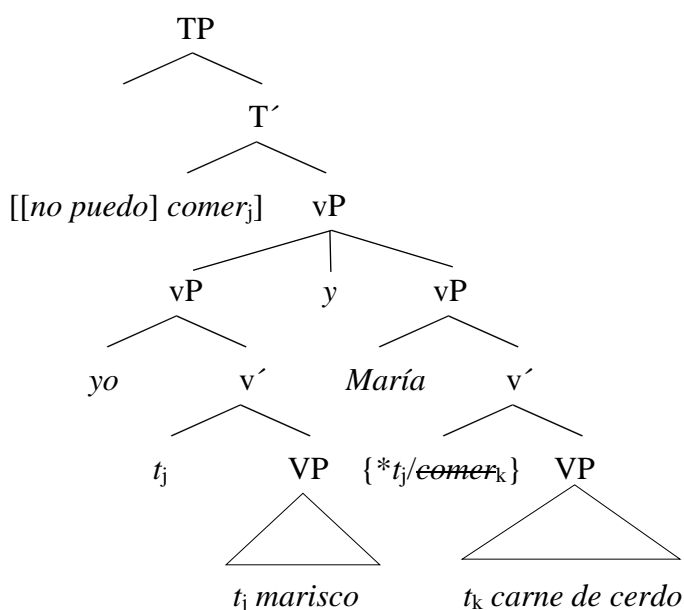
    b.   *Low-coordination plus ATB-movement/*PF-deletion*

---

[92] The subject of the first conjunct can appear in preverbal position, as shown in (i), though native speakers strongly prefer using postverbal subject.

(i)   Yo no   puedo   comer marisco y   María carne de cerdo.
         I   NEG can.1.SG eat   seafood and María pork meat
         (a) *'I can't eat seafood and Mary can't eat pork meat'
         (b) 'It is not the case that I can eat seafood and Mary can eat pork meat'

Soon after, we will see some interesting aspects of this word order, compared with other orders that involve postverbal subjects.

```
                              TP
                              |
                              T´
                             / \
          [[no podemos] comeri]   vP
                             /    |    \
                          vP      y      vP
                         /  \            /  \
                       yo    v´      María    v´
                            /  \            /    \
                          ti    VP   {ti/*comerj}  VP
                               /△\              /△\
                            ti marisco       tj carne de cerdo
```
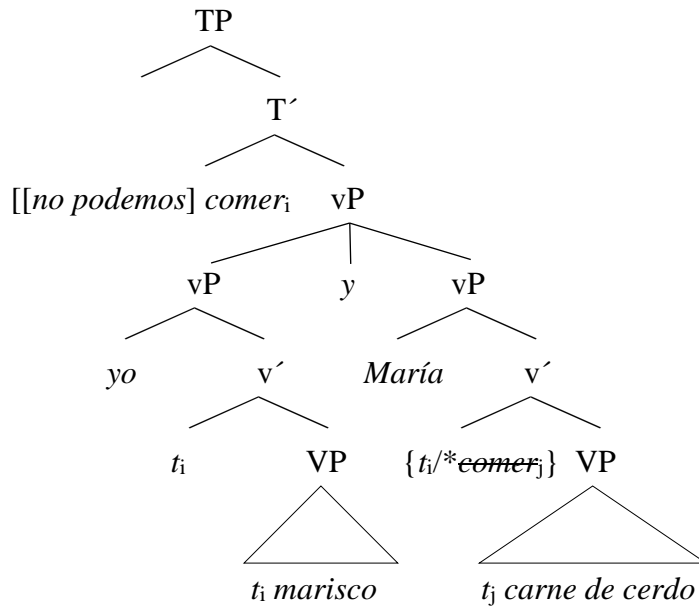
In the analyses shown above, I assume a sort of Multiple Agree (Ura 1994, 1996; Hiraiwa 2001, 2005; Chomsky 2008, a.o.) for the subjects of both conjuncts. Thus, under Multiple Agree, the subjects of both conjuncts in (18) get Case from T° above the vP-coordination. This is of course not unlike Johnson's (1996/2004) "Sharing" mechanism for NOM Case assignment, which was necessary for low-coordination with one single T° (cf. § 2.2.1).

Concerning the non-ATB verb movement involved in (18a), one might wonder how it could circumvent the CSC. The way I cope with this matter is as follows. As suggested by Koeneman (2010), 'V-to-T' movement can be regarded as an operation that the verb undergoes in order to put rich agreement features in the predicational domain of VP. This captures the robust correlation between 'V-to-T' movement and rich agreement (Roberts 1985, 1993; Pollock 1989; Platzack and Holmberg 1989; Holmberg and Platzack 1991, Vikner 1997, a.o.).[93] If we assume that (i) rich agreement is a sort of argumental relation between the T° and the verb, and (ii) verb movement is triggered by the agreement features (i.e. φ-features) of T° which are closely associated with A-related agreement operations (e.g. object agreement), 'V-to-T' movement can be viewed now as an operation triggered by A-properties of T°. Given this, it can be stated that if A-movement is immune to the CSC (Johnson 1996/2004) and verb movement is triggered by the agreement features of T°, it is

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[93] Biberauer and Roberts (2008) argue that morphology is part of core syntax only for V-raising languages but not for V-in situ languages. They propose that actually 'V-to-T' movement (in Romance languages) is not an instance of a head moving to another head T, but rather a compound [V+T] determining the formation of TP itself by way of movement. This viewpoint is also compatible with my claim in the text.

not implausible to suggest that in (18a), 'V-to-T' movement from the first conjunct only can be also immune to the CSC.

As for the cumulative agreement in (17b), I propose that it is triggered by ATB-movement involved in (18b), in contrast to the single verb movement to Tº in (18a), which yields the non-cumulative agreement shown in (17a). Here one may wonder why and how unvalued φ-features of Tº in (18a) cannot be valued by the second conjunct's subject, contrary to what happens with the first conjunct's subject. As discussed in § 2.2.1, this was problematic for Johnson's ATB-movement analysis of English gapping. On the face of it, the same problem seems to arise in (18a) because only the first conjunct's subject can agree with Tº, producing thus *no puedo$_{1.SG}$ pedir yo marisco y María carne de cerdo*, and not **no puede$_{3.SG}$ pedir yo marisco y María carne de cerdo*.

For this matter, the idea I have in mind is that, if we assume that in (18a) verb movement to Tº makes somehow the first conjunct' subject more local to Tº than the second conjunct's subject, then it could be argued that only the former can satisfy the unvalued φ-features of Tº, discarding thus the illicit output seen above. In the case of (18b), by contrast, since the verb undergoes ATB-movement, the subjects of both conjuncts could be equally local to Tº, producing the cumulative agreement in (17b). That is, prior to head-movement, both subjects are originally equidistant to Tº in the sense of Chomsky (1995) and thus get Case from Tº in a Multiple Agree-fashion. But once verb movement is taken place, the situations change; i.e. only the first conjunct's subject is local to Tº if there is a single verb movement, as in (18a), whereas the subjects of both conjuncts are equally local to Tº if the verb undergoes ATB-movement, as in (18b). This kind of locality issue might be understood in the spirit of domain extension via verb-raising (Chomsky 1986, 1993) for φ-feature valuation, which is similar to Den Dikken's (2006, 2007a,b) "Phase Extension" via head-movement for further syntactic operations (see also Gallego 2010).[94]

It is worth mentioning at this point that in fact native speakers of Spanish prefer using Type-I gapping with cumulative agreement, as shown in (19).

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[94]   *Phase Extension*

Syntactic movement of the head H of a phase α up to the head X of the node β dominating α extends the phase up from α to β; α looses its phasehood in the process, and any constituent on the edge of α ends up in the domain of the derived phase β as a result of Phase Extension.

(Den Dikken 2007a: 1)

(19) a.　No {pueden/*puede}　　comer Juan marisco y　María　carne de cerdo.

　　　　　not {can.3.PL/*can.3.SG} eat　　Juan seafood and María pork meat

　　　　　(i) *'John can't eat seafood, and Mary can't eat pork meat'

　　　　　(ii) 'It cannot the case that John eats seafood and Mary eats pork meat'

　　b.　No {deberíamos/*debería}　　pedir yo marisco y　tú　carne de cerdo.

　　　　　not {should.1.PL/*should.1.SG} order I　seafood and you pork meat

　　　　　(i) *'I shouldn't order seafood, and you shouldn't order pork meat'

　　　　　(ii) 'It should not the case that I order seafood and you order pork meat'

The same is true without negation, as shown in (20) in which cumulative agreement is also obligatory with the verb of the first conjunct.[95]

(20) a.　(Como siempre),{comieron/*comió} Juan marisco y　María carne de cerdo.

　　　　　(as　　always) {ate.3.PL/*ate.3.SG} Juan seafood and　María pork meat

　　　　　'(As always) John ate seafood and Mary ~~ate~~ pork meat'

　　b.　(Para variar), {pediremos/*pediré}　yo marisco y　ella carne de cerdo.

　　　　　(for　vary) {will.order.1.PL/*1.SG} I　seafood and she pork meat

　　　　　'(To vary) I will order seafood and she ~~orders~~ pork meat'

According to the analyses offered in (18), the examples in (17) will produce only the wide-scope readings because the clausal negation *no* is generated above the vP-coordination and thus c-commands both conjuncts.
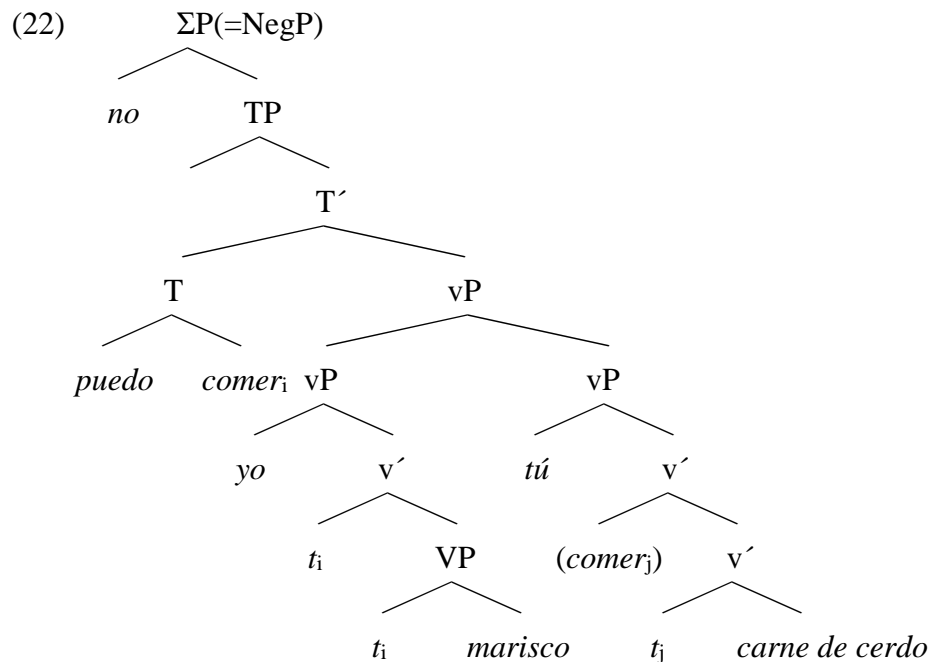
　　Notice that, for Type-I gapping in Spanish, I am suggesting two different types of analysis under low-coordination; namely (18a) and (18b). In the literature, there have been proposals on gapping in terms of either ATB-movement (e.g. Johnson 1996/2004) or PF-deletion (e.g. Toosarvandani 2015, 2016) under low-coordination. But no attempt has been made so far to see whether both types of analyses are required (or can be applied) to the derivation of gapping under low-coordination, with the exception of Centeno (2011) who

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[95] I thank Vidal Valmala who brings my attention to this fact of Spanish gapping. Notice that this is not specific to a variant of Spanish spoken in the Basque Country. My informants from other regions of Spain (e.g. Asturias, Cataluña, Extremadura, Comunidad de Madrid, Rioja, and Comunidad de Valencia, etc.) also accept cumulative agreement more natural than its non-cumulative counterpart. Thus, it can be said that cumulative agreement in (19) and (20) does not have to do with the language contact with Basque, where the language allows both non-cumulative and cumulative agreement in backward gapping (Trask 1977).

tries to analyze Spanish gapping in that way (cf. § 3.1.2).[96] In what follows I will provide some arguments supporting my analyses shown in (18a) and (18b).

As for the analysis in (18a), on the one hand, I claim that the PF-deletion analysis is motivated to account for data like (21), where the lexical verb of the second conjunct can be also pronounced. Since this fact would be totally unexpected if ATB-movement were involved in (20), the derivation of this sentence should be something like (22), where the lexical verb of the second conjunct can be elided at PF.

(21) No puedo   comer yo marisco y   tú   (comer) carne de cerdo.[97]
      Not can.1.SG eat   I   seafood and you (eat)   pork meat
      'I can't eat seafood and you (eat) pork meat'

(22)   ΣP(=NegP)
             /   \
          no   TP
                      / \
                      T´
                   /   \
                  T   vP
               /   \   /   \
          puedo *comer*ᵢ vP   vP
                      / \   /   \
                  yo   v´   *tú*   v´
                        / \   /   \
                      *t*ᵢ   VP   (*comer*ⱼ) v´
                           / \   /   \
                         *t*ᵢ *marisco* *t*ⱼ *carne de cerdo*

On the other hand, when the auxiliary verb appears in plural, as an instance of cumulative agreement, the verb of the second conjunct cannot be pronounced anymore, as

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[96] I have already shown that her analysis was not well-motivated; it lacks a real motivation of two ways of deriving the gap under low-coordination. In any case, Centeno's work has nothing to do with what I will show in the text.

[97] The following order is also perfectly possible.

(i)   No puedo comer yo marisco y comer tú carne de cerdo.

However, for unknown reason, the order shown in (ii) is not acceptable for those who I have consulted.

(ii)   ??No puedo yo comer marisco y tú comer carne de cerdo.

shown by the example in (23). Thus, if the derivation of this sentence involves ellipsis, the pronunciation of the lexical verb should be optional, contrary to fact. This is the reason why I have proposed the analysis in (18b), which is aimed to explain data like (23) by means of ATB-movement, and not PF-deletion.

(23) No podemos comer yo marisco y   tú   (*comer) carne de cerdo.[98]
      Not can.1.PL eat   I   seafood and you (*eat)   pork meat
      'I can't eat seafood and you eat pork meat'

On this type of Spanish gapping with cumulative agreement on the verb, interestingly, it is possible for a cumulative overt subject pronoun to appear in preverbal position, as shown in (24).

(24) *Context*: *In a restaurant, a waiter confirms the order of the clients*.
         … entonces vosotros pedís   tú   marisco   y   ella merluza, ¿es así?
           so   you guys order.2.PL you seafood and she hake   is so?
       (Lit.) "… so you guys order you seafood and she hake, is it so?"

This kind of subject pronoun, however, cannot appear in postverbal position, as shown in (25).

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[98] This example is confirmed by native speakers to be unacceptable if the lexical verb of the second conjunct is pronounced.

(25)   *Pediremos nosotros yo besugo   y   ella merluza.[99]

      order.1.PL we   I   sea bream and she hake

      (Lit.) "We will order I sea bream and she hake"

For this contrast, I assume that in (24) the cumulative subject pronoun *vosotros* 'you guys' is base-generated in [Spec,TP] (or [Spec, TopP]), and the ungrammaticality of (25) is due to the fact that there is no more (specifier) position available for the cumulative subject; in particular, in between the inflected verb and the vP-coordination.

    In fact, there is a clear contrast in the possibility of having a subject in preverbal position of the first conjunct, depending on whether the verb shows up in cumulative or non-cumulative agreement. For instance, if verb agreement is not cumulative, the subject of the first conjunct can appear either postverbally (26a) or preverbally (26b). However, if the verb appears in cumulative, the subject of the first conjunct can appear only postverbally, as shown by the contrast between (27a) and (27b).

(26)   a.   No puedo   pedir yo marisco y   ella carne de cerdo.

          NEG can.1.SG order I   seafood and she pork meat

     b.   Yo$_i$ no puedo pedir t$_i$ marisco y ella carne de cerdo.

(27)   a.   No   podemos pedir yo marisco y   ella carne de cerdo.

          NEG can.1.PL   order I   seafood and she pork meat

     b.   *Yo$_i$ no podemos pedir t$_i$ marisco y ella carne de cerdo.

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[99] Alejo Alcaraz (p.c) points out to me that if the example in (25) is represented as (i), it sounds better for him.

(i)   Pediremos nosotros; yo besugo y ella merluza.

However, this kind of juxtaposition is different from the gapping example in (25); i.e. as stated before, Type-I gapping with cumulative agreement does not have any prosodic break right before the coordinator *y* 'and' nor before the subject of the first conjunct. In addition, the example in (i) does not have anything to do with low-coordination. That is, the plural agreement shown in (i) is not the result of Multiple Agree under low-coordination in (17b). Thus, the example in (i) is not related to Type-I gapping with cumulative agreement. As far as I can reach, examples like (i) should be considered on a par with the pair-answers (iiB) to a question like (iiA).

(ii)   A: ¿Qué pedís vosotros?
           'What do you guys order?'
      B: (Pediremos nosotros); yo besugo,   ella merluza, Juan lubina, …
           (will.order we)   I sea bream she hake   Juan sea bass
           '(We will order); I/me sea bream, she/her, hake, John sea bass, …'

In this dissertation, I will not discuss this kind of elliptical constructions, and I will leave it for future research.

Given this situation, the obvious question that emerges is why the sentence in (27b) is impossible if the agreement features on the verb only depend on the Agree operation between Probe (Tº) and Goal (subject), being triggered subject raising by some other feature. What does prevent the subject from raising to a preverbal position, contrary to what happened in (31b)?

Following Johnson (1996/2004), I assume that in (26b), the subject of the first conjunct has undergone A-movement; otherwise, it would clearly violate the CSC.[100] If so, the ungrammaticality of (27b) does not have to do with the nature of movement involved therein; i.e. it is not the case that the sentence in (27b) is ungrammatical because the subject of the first conjunct undergoes A'-movement. Instead, the ungrammaticality of the sentence suggests that the agreement features of Tº also depend on the element appearing in its specifier position, which means that we need somehow the Spec-Head Agreement (Chomsky 1986, 1991; Kayne 1989; Mahajan 1989, 1990; Sportiche 1990, 1998; Koopman and Sportiche 1991; Koopman 1992, 2003, 2006; Schütze 2016, a.o.), in addition to the Agree system (Chomsky 2000, 2001) currently used in minimalist syntax. Following this suggestion, I propose that in (27b), subject raising is ruled out by the Spec-Head Agreement because when the subject of the first conjunct has moved to [Spec,TP], we have crash of features between Tº and the raised subject, as illustrated in (28).

(28)
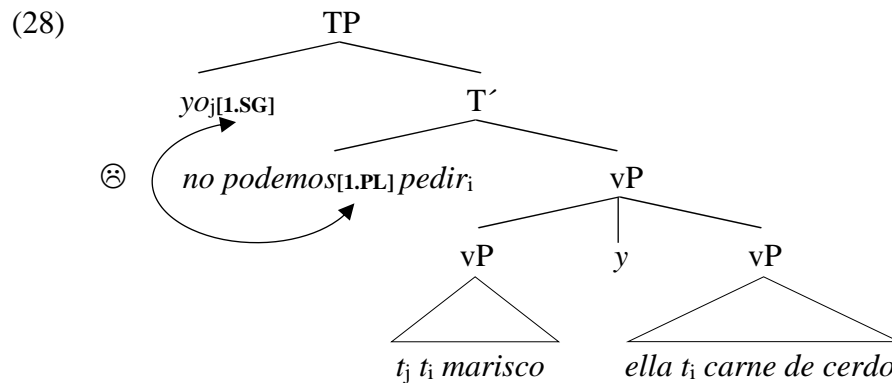
In the case of (26b), on the contrary, subject raising does not cause any problem since it enters appropriately into a Spec-Head Agreement with Tº; i.e. they share the same feature, producing *yo*$_i$[**1.SG**] *no puedo*[**1.SG**] *pedir t*$_i$ *marsico y ella carne de cerdo*.

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[100] Remember that Johnson shows only that A-movement is immune to the CSC (cf. § 2.2.1). As far as I know, there is no evidence showing that A'-movement also circumvents the CSC.

If this line of reasoning is on the right track, in certain environments like the ones illustrated above, preverbal subjects in Spanish are results of A-movement to [Spec,TP] (Torrego 1984; Belletti 1988; Motapanyane-Hill 1991; Cardinaletti 1996; Ausín 2001, 2012; Goodall 2001; Suñer 2003; Ortega-Santos 2005; Lopez 2009, a.o.).[101] In addition, the Spec-Head Agreement (see Adger 2016 for recent revival of this mechanism in which Chomsky's Agree system is reduced to Select (relation) between heads and specifiers) must be active in subject-verb agreement in Spanish because the Agree mechanism alone does not elucidate the agreement phenomenon under discussion.[102]

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[101] In the literature, some authors like Uribe-Etxebarria (1991), Masullo (1992), Solà (1992), and Zubizarreta (1999), a.o., have suggested that [Spec,TP] in Spanish has A'-properties and can also host A'-moved elements such as topic and *wh*-items. This perspective is compatible with the claim in the text if we assume that preverbal subjects agree with the 'T-C' complex (in the sense of Gallego 2015). However, if so, we then lose the connection between A-movement and its ability to circumvent the CSC; i.e. only A-movement from a single conjunct is immune to this constraint, as stated by Johnson (1996/2004: 40–1). I assume that movement to [Spec,TP] is more driven by A-properties than A'-properties, and I leave the issue for future research.

[102] If the Agree is the only mechanism available for subject-verb agreement, there is another way to elucidate the impossible SVO order shown in (27b) without resorting to the Spec-Head Agreement. As for the Spanish VSO order, Zubizarreta (1994, 1998) notes that such order is attested in cases where some element other than the subject functions as the subject of predication (i) (The examples are taken from Zubizarreta 2009: 339).

(i) a. Todos los días compra Juan el diario.
   every day   buys   Juan the newspaper
   'Juan buys the newspaper every day'
  b. A María le   regaló su abuelo   un caballo de pura raza.
   to María CL.DAT gave   his grandfather a horse   of pure breed
   'Her grandfather gave María a purebred horse'

She states that the subject of predication may be covert, as illustrated in (ii). The subject position of (ii) is occupied by *pro*.

(ii) a. Me   devolvió María el libro que le   presté.
   CL.DAT. returned María the book that to-her (I) lent
   'María returned to me the book that I lent her'
  b. Se   comieron los niños todo el   pastel.
   CL.BENAFC. ate   the boys all   the cake
   'The boys ate up all the cake'

If one follows this idea, a similar explanation might be available for (27b); e.g., a null pronominal occupies [Spec,TP], agreeing with T°; [TP *pro*[1.PL] [T' *podemos*[1.PL] …]]. If this is the case, (27b) would be ruled out as follows. Since *pro*[1.PL] is located in [Spec,TP], there is no more place for the subject *yo*[1.SG]. However, this kind of explanation cannot extend to (25b); it cannot be the case that a null subject *pro* occupies the specifier position of the TP because if it were, examples like (26b) should not be allowed, contrary to fact. One may suggest that (26a) and (26b) are not derivationally related to each other, assuming two different numerations. But this idea is clearly less economical than the derivational approach to VSO (or VOS); i.e. these two orders are basically derived from SVO by transformations. If this is case, we can conclude that the Spec-Head Agreement is the right apparatus to elucidate the contrast between (26b) and (27b).

3.2.2. High-coordination gapping

The second type of gapping which I will call hereinafter "Type-II" is characterized by having prosodic break and falling intonation contour right before the object of the first conjunct, as shown in (29). I propose that this type of gapping in Spanish involves high-coordination and thereby must be analyzed in terms of PF-deletion, as illustrated in (30) (The arrows indicate intonation contours).

(29) Yo no puedo   comer marisco, y   María carne de cerdo.[103]

I   NEG can.1.SG eat   seafood and María pork meat

(i) 'I can't eat seafood, and Mary can't eat pork meat'

(ii) *'It is not the case that I can eat seafood and Mary can eat pork meat'

<u>Prosodic representation</u>: [S ↗ V ↘ O], & [↗S ↘ O][104]

(30) **Type-II gapping**: *High-coordination plus PF-deletion*

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[103] Given this surface order; SVO & SO', one important question needs to be considered: where is the position of the second conjunct's subject? Let us look at the following example.

(i)   (En la asamblea),
         (in the assembly)
         los estudiantes exigieron todos más vacaciones, y   los estudiantes (todos) más docencia.
         the students   demanded all   more vacations   and the professors (all)   more teaching
         'The students demand all more vacations, and the professors ~~demanded~~ all more teaching'

According to my informants, in (i), the missing portion of the second conjunct must contain the meaning of the Floating Quantifier (FQ) *todos* 'all'. They also inform me that this FQ can appear in the second conjunct, as shown above. If this is the case, an example like (i) provides two theoretical implications. First, the subject of that conjunct, *los estudiantes*, is not in situ but in a derived position (e.g. [Spec,TP]); otherwise, it is not possible to obtain the relevant reading with FG. Second, the sentence in (i) also suggests that the movement-plus-deletion analysis cannot be correct because, if the FQ *todos* can appear in the second conjunct, the elided portion under that analysis should include it, contrary to what happens in (i). I will discuss this issue in detail in § 3.3.2.

[104] See Hoeks *et al* (2009: 226, Fig1) for pitch accent of the remnants and their correlates in English gapping.
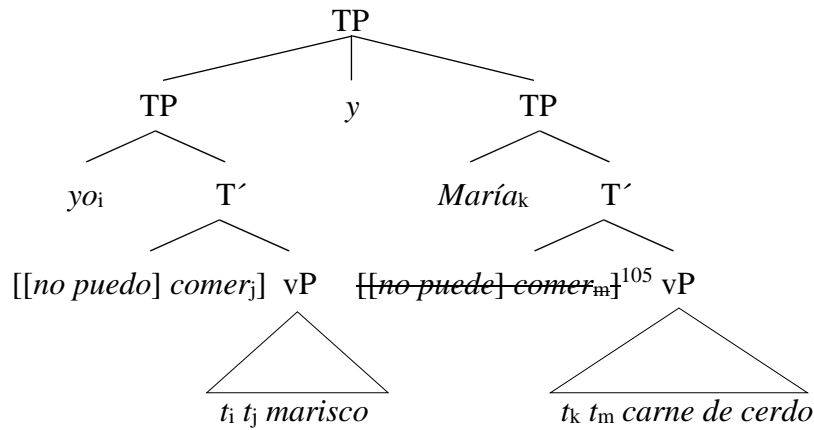
Since in this configuration the negation *no* contained in the first TP-conjunct does not c-command the second TP-conjunct, it is obvious that each conjunct of the sentence in (29) shows the narrow-scope reading of negation.

To support the claim that examples like (29) involve high-coordination, in what follows I will present a number of arguments.

First, there are instances of Spanish gapping which show only the narrow-scope reading of negation. For instance, when the negative conjunction *ni* 'neither' is employed, the resulting sentence does not provide the wide-scope reading anymore, as shown in (31).

(31) Juan no comió marisco, ni   María,___ carne de cerdo.
      Juan not ate   seafood neither María   pork meat
      (i) 'John didn't eat seafood and Mary didn't eat pork meat'
      (ii) *'It was not the case that John ate seafood and Mary ate pork meat'

This also holds true for cases like (32) where the subject of the first conjunct appears in postverbal position, yielding the 'VSO & SO' order.

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[105] I illustrate PF-deletion with simplified strikethrough of the elided materials, but only for presentational purposes; e.g., not to complicate the derivational structure concerning the positions of the negation *no* 'not' and the auxiliary *poder* 'can'. Presumably the former is generated in Σ^o above the TP, and the latter, in Aux^o (or Asp^o) below the TP and then moves to T^o. This kind of stuff is not crucial for my purpose in the text. In § 3.2.2.2, I will be explicit the PF-deletion analysis of gapping.

(32) No comió Juan marisco, ni   María, ___ carne de cerdo.[106]

      not ate   Juan seafood neither María   pork meat

      (i) 'John didn't eat seafood, and Mary didn't eat pork meat'

      (ii) *'It was not the case that John ate seafood and Mary ate pork meat'

This contrast in scope interpretations indicates strongly that examples like (31) and (32) do not involve a low-coordination, and therefore they must be analyzed in terms of high-coordination plus PF-deletion; otherwise, the wide-scope reading of negation should be possible in (31) (or in (32)), contrary to fact.[107] In this way, my analysis given in (30) is further supported by gapping examples with the narrow-scope reading only.

      Next, as firstly noted by Bosque (1984), examples such as (33) are perfectly possible in Spanish. Although this author does not discuss the data in detail, examples like these strongly show that the second conjunct of gapping must be larger than a phrase containing the clausal negation.

(33) a.   Pedro tiene dos hermanas, y   Luis ningún hermano.

           Pedro has   two sisters   and Luis any   brother

           'John has two sisters, and Mary ~~doesn't have~~ any brother'

      b.   Antonio fue   a Italia, y   Pedro a ningún sitio.

           Antonio went to Italy   and Pedro to any   place

           'Antonio went to Italy, and Pedro ~~didn't go~~ to anywhere'

      c.   Juan confía en mucha gente. María en nadie.

           Juan trusts in many people María in anyone

           'Juan trusts many people. Mary ~~doesn't trust~~ anyone'

                            (Bosque 1984: 179, (25))

---

[106] The following order is also possible in Spanish gapping, though it is slightly deviant.

(i)   ?No comió marisco Juan, ni María ___ carne de cerdo.

This example is interesting for the following reason. The surface order of the conjuncts is 'VOS & SO', which does not meet the parallel ordering of the remnants and their correlates. But the fact is that (i) is not totally unacceptable. In § 3.2.3, I will discuss the issue in detail.

[107] If the Spanish negative conjunction *ni* could be analyzed as "*y + no*", e.g. via (some) incorporation of the latter to the former, it would be naturally expected why these examples do not have the wide-scope readings.

The reason for this lies in the fact that the Negative Polarity Item (NPI) appears as a remnant in the second conjunct, but in the absence of its licensor; namely the negation (or *n*-word) (see Repp 2009 for similar cases where the scope of negation is limited only to the first conjunct). Since there is no negation whatsoever in the first conjunct of (33), it is reasonable to suppose that NPIs are somehow licensed within the second conjunct.

Concerning NPI-licensing (cf. Klima 1964; Baker 1970; Lasnik 1972; Ladusaw 1979; Linebarger 1980; Progovac 1988; Laka 1990; Zanuttini 1991, 1994, 1997; Uribe-Etxebarria 1994; Haegeman 1995, a.o.), it has been generally agreed upon that an NPI must be licensed by a negation in a local c-command domain. If this is correct, in (33a), for example, the missing portion of the second conjunct must contain the clausal negation *no* 'not', which licenses the NPI *ningún hermano* 'any brother'; otherwise, the presence of NPI cannot be legitimated under any circumstance. Since the resulting output containing *ningún hermano* is grammatical in (33a), we can reasonably argue that there must be a negation contained in the missing portion of the second conjunct. Given that the clausal negation in Spanish is always generated above the vP; e.g., either below the TP (following Pollock 1989 and Belletti 1990, a.o.) or above it (ensuing Laka 1990), the sentence in (33a) evidently shows that the second conjunct must be high enough to host the negation *no*. Otherwise, there is no way to license NPIs in the absence of its licensor. Without further discussion, the same reasoning applies to the sentences in (33b) and (33c).

In this manner, I contend that example like (33) constitute a robust argument against the low-coordination because the existence of the NegP (or ΣP) within the second conjunct discards any possibility of forming low-coordination between the two conjuncts.

Similarly, as mentioned in § 1.1.1 where gapping can involve different illocutionary forces including interrogative and imperative, examples of the sort illustrated in (34) also demonstrate that they do not involve low-coordination.

(34) a. ?Yo sé   qué   libro compró María, y   Pedro sabe   qué   libro, Juan.[108]
      I   know which book bought María and Pedro knows which book   Juan
      'I know which book María bought, and Pedro knows which book Juan ~~bought~~'
                                                                (Saab 2009: fn 14 (ii))

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[108] I have found native speakers who do not consider the example perfectly acceptable. But if we change the *wh*-object of the second conjunct by *qué disco* 'which disk' to be properly contrastive with *qué libro* 'which book', then the resulting output is perfectly acceptable for those speakers.

b.   Yo sé   a quién quiere Luis, y   a quién María.[109]

       I   know to whom likes   Luis and to whom Mary

       'I know who does Luis like, and who ~~does~~ Mary ~~like~~'

Examples of this kind, to begin with, show that they are not subject to the "No-Embedding Constraint" due to the presence of embedded gaps in the second conjunct (cf. § 3.2.1), and therefore the sentences must involve a coordination larger than that of two vP-conjuncts.

For the latter statement, I would like to claim that examples like (34) must involve high-coordination specifically due to the presence of the *wh*-object. This is because in *wh*-movement languages like Spanish, *wh*-phrases must undergo movement to [Spec,CP] in the general cases. Thus, by analogy, the second conjunct of (34) should involve the same operation in overt syntax.

Note that it is hard to assume that in (34b), for instance, *a quién* 'to whom' of the second conjunct is an instance of *wh*-in situ (*á la* Reglero 2004, 2005; Reglero and Ticio 2008, 2013, 2016). This is because the object *wh*-phrase does not appear following the subject DP, contrary to what happens in typical contexts of *wh*-in situ; e.g., *¿Juan quiere a quién?* 'John likes who?' Even if one departs from this perspective and assumes alternatively a movement approach to Spanish *wh*-in situ (Uribe-Etxebarria 2002; Etxepare and Uribe-Etxebarria 2005, 2012), we have the same consequence: in any case the subject DP in (34b) does not appear preceding the object *wh*-phrase on the surface.

More importantly, it has been widely claimed that, in order for a *wh*-phrase to be appropriately interpreted as Q(uestion)-word, it is necessary to have *wh*-movement to [Spec,CP], in particular in *wh*-movement languages like Spanish and English. Thus, it can be said that in (34b), *a quién* of the second conjunct is located in [Spec,CP] as a result of *wh*-movement, and not stayed in situ. The same reasoning applies to the sentence in (34a).

If this kind of reasoning is on the right track, we can reasonably conclude that the second conjunct of (34) must be larger than a mere vP, precisely to host the *wh*-object in an appropriate position.[110]

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[109] This example is confirmed by native speakers to be acceptable. For example, in a context in which we know that Luis likes some other girl and Mary likes some other guy, (34b) is felicitous in that context.

[110] Note that examples like (34) should not be produced in English because, as discussed before, the language obeys the "No-Embedding Constraint". According to my informants, however, the English counterparts of (34) are acceptable and thus invalidate the aforementioned constraint in English gapping.

Note also that the argumentation of the text is also applicable to examples like (i) where the subject *wh*-phrase is also arguably undergone movement to [Spec,CP].

As described in Brucart (1999), gapping in Spanish can occur in a number of different contexts like (35).[111]

(35) a. Elisa tiene mucho genio, pero Luis todavía más.

        Elisa has many genius but Luis even   more

        'Elisa has much genius, but Luis ~~has~~ even more ~~geniuses~~'

b. Luis cuida a su madre mucho mejor que Antonia a la suya.

        Luis takes to his mother much more than Antonia to the hers

        'Luis takes care of his mother much better than Antonia ~~take care~~ of his ~~mother~~'

c. Yo llegue a mi casa antes que Pedro a la oficina.

        I arrived to my home before that Pedro to the office

        'I arrived to my home before Pedro ~~arrived~~ to his office'

d. Yo encontraba problemas allí donde Pedro facilidades.

        I found   problems that where Pedro easiness

        'I found problems where Pedro ~~found~~ easiness'

e. Si yo merezco un aplauso, tú una ovación.

        if I deserve a applause you an ovation

        'If I deserve a round of applause, you ~~deserve~~ an ovation'

(i) ¿Quién es el cazador, y quién la presa?
      who is the hunter and who the prey
      'Who is the hunter and who ~~is~~ the prey?'

                                  (Taken from Stephan King's novel *Mr. Mercedes*)

In the second conjunct of (i), the syntactic position where the *wh*-phrase *quién* is shown and properly interpreted as *wh*-element should be [Spec,CP], similar to what happened in the first conjunct. Note that if a sort of low-coordination were assumed here, it should state that *quién* of the first conjunct is moved to [Spec,CP] in violation of the CSC. But then the problem is that this is not A-movement, which has been assumed to be immune to CSC; e.g., Lasnik (2001) suggests that A-movement does not leave trace and thus there is no trace at all contained in an island, so that the CSC (or other island violations) is immaterial for A-movement. Similarly, Johnson (1996/2004) states that subject movement to [Spec,TP] from the first conjunct is allowed in English gapping under low-coordination because it is driven by the EPP. But again, this kind of explanation cannot extend to (i) for various reasons. First, in the general cases, Spanish does not have obligatory subject movement to [Spec,TP], contrary to English where subject movement is driven by the EPP-feature of T°, which is subject to crosslinguistic variation (see a.o. Alexiadou and Anagnostopoulou 1998). Second, even if the first claim were somehow reconciled, it is not clear whether the *wh*-phrase *quién* of the first conjunct moves first to [Spec,TP] and then to [Spec,CP]: in languages like Spanish, subject movement to [Spec,TP] (by the EPP) is optional, but it becomes obligatory in the case of *wh*-movement. As far as I can reach, this is not plausible due to the lack of independent evidence. Third, the *wh*-phrase *quién* of the second conjunct stays in situ under low-coordination. If so, the question that needs to be asked is how we interpret it appropriately without *wh*-movement. I think that this is not possible if there is no *wh*-movement (to [Spec,CP]) either overtly or covertly.

[111] As a matter of fact, the sentences in (35a-d) are instances of gapping occurred in comparatives (rather than in coordination).

In particular, the example in (35e) is relevant for my claim against the small-conjuncts involved in gapping. At first, this sentence is an instance of gapping in many aspects, a.o., what is missing is the verb (or the verbal complex) and there are two elements left behind as remnants.[112] However, this example shows that the antecedent of the gap appears in a conditional clause, which forms a syntactic structure with the clause where gapping happens. That is, the sentence in (35e) does not involve a coordination we are familiar with because the conditional clause headed by *si* 'if' is not considered to be part of a typical coordinate structure. For presentational purposes, let us assume that such conditional clause is somehow conjoined with the gapped clause in syntax. Then, it suggests that we cannot postulate any small-conjunct between the conditional clause and the clause where gapping occurs. This is because the particle *si* of the conditional clause is an element closely related to Cº, so that it never scopes over the gapped clause; e.g., the conditional meaning of *si* is limited only to the clause where it appears. Therefore, it is not possible to imagine that the ellipsis clause is really small (e.g. vP) and then embedded into the conditional clause.

In view of that, I consider the example in (35e) as another piece of evidence showing that we cannot postulate small-conjuncts for that kind of gapping sentences in Spanish.

Furthermore, as mentioned in § 1.1.1, when the gapping sentence involves passive conjuncts, it cannot involve low-coordination. The relevant examples are given in (36).[113]

(36) a. Kennedy was assassinated by Lee Harvey Oswald,   (*English*)
          and Martin Luther King Jr., ___ by an unknown sniper.
      b. Kennedy fue asesinado por Lee Harvey Oswald,   (*Spanish*)
          y Martin Luther King, Jr., ___ por un francotirador desconocido.

In principle there is no restriction to prevent a conjunct of gapping from being passive, though its implication for the analysis has not been paid attention in the previous literature.

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[112] Note that it is also compatible with the embedded gaps, as shown in (i); a fact reminiscent of other instances of Spanish gapping (cf. § 3.2.1).

(i)   Si yo merezco un aplauso, yo creo que tú   una ovación, (amigo).
        if I deserve a applause I think that you an ovation (my friend).

[113] I consider that this argument is valid for other languages with passivization by A-movement.

What is of interest to us here is A-movement involved in the passive. Following Chomsky (1981, 1986), Jaeggli (1986), Baker, Johnson, and Roberts (1989), Ouhalla (1994), Radford (2004), and Collins (2005), a.o., let us assume that movement (or raising) analysis of passive is on the right track at least for cases like (36).

Under this analysis, *Kennedy* of the first conjunct in (36) must undergo object-to-subject raising. Whatever may be the exact trigger for A-movement in the passive, the fact is that the subject position of the passive is basically [Spec,TP]. If so, then the crucial question is whether the passive subject *Martin Luther King, Jr.* of the second conjunct undergoes the same kind of movement (or not). It should be so because the interpretation of the whole second conjunct must be passive, reinforced by "by-phrase" within that conjunct, which is a clear indicator of passive (interpretation). Given this situation, it is likely to be the case that *Martin Luther King, Jr.* will be located in [Spec,TP] (after A-movement). If this is right, the same can be said for the examples in (36). That is, the passive subject *Martin Luther King, Jr.* of the second conjunct must be also located in [Spec,TP]. For that reason, examples like (36) show that there is no low-coordination involved therein; otherwise, the subject status of *Martin Luther King, Jr.* is totally inexplicable. Therefore, the examples in (36) must involve high-coordination that provides a syntactic position for the passive subject in each conjunct.

Importantly, Johnson's ATB-movement analysis cannot explain the data shown in (36): his analysis could just make another assumption by which (i) the active structure of each vP-conjunct starts as part of the low-coordination; (ii) the verb undergoes ATB-movement to some functional head (e.g. Voiceº) related with passive voice, and then (iii) *Kennedy* of the first vP-conjunct moves to [Spec,TP] as an instance of A-movement. However, the problem is that this analysis cannot go further. That is, *Martin Luther King, Jr.* of the second vP-conjunct still remains in object position, and the PP *by an unknown sniper*, in subject position. Crucially, displacing *Martin Luther King, Jr.* to some position above the PP *by an unknown sniper* does not benefit to generate another A-movement configuration in this circumstance. In fact, there is no more acknowledged A-position available above the second vP-conjunct, which is coordinated with the first vP-conjunct in keeping with low-coordination. Thus, under Johnson's analysis *Martin Luther King, Jr.* can never be qualified as subject of the passive second vP-conjunct.

Finally, two different occurrences of temporal adverbials in (37) also indicate that high-coordination must be the right one involved therein.

(37) a. Luis llegó ayer,   y Pedro anteayer.

'Luis arrived yesterday, and Pedro ~~arrived~~ the day before yesterday'[114]

b. Luis llega hoy,   y Pedro mañana.

'Luis arrives today, and Pedro ~~arrives~~ tomorrow'

(Brucart 2004: 170, (16a-b))

That is, low-coordination does not provide room for more than one temporal adverbial under one single T-projection; otherwise, it wrongly predicts that sentences like *[TP [TP [TP Luis [T' llegó]] ayer] anteayer]* could be grammatical, contrary to fact.

Thus far I have convincingly shown that it is not correct at all that Spanish gapping involves only low-coordination, and there are several cases where only high-coordination can account for both empirical facts and theoretical details therein.

The next two sections will assess the derivation mechanism for Spanish Type-II gapping. I will compare the standard movement-plus-deletion analysis with an alternative that does not resort to movement for deletion, and I will show that the latter is better than the former not only empirically but also theoretically.

3.2.2.1. Movement-plus-deletion analysis

Since Merchant's (1999, 2001) pioneer work on sluicing under the [E]-feature-based analysis and its application to other types of ellipsis constructions, the PF-deletion approach to gapping was beginning to drawn attention to many researchers. This type of analysis, as discussed in § 2.1.3, argues that gapping involves high-coordination in which the gap of the second conjunct comes as a result of eliding TP, which is fed by prior movement of the remnants out of the ellipsis site.

For Spanish, there has been no fully developed analysis in terms of PF-deletion under high-coordination. But Saab (2009: Ch.3) suggests such kind of analysis, though he does not give (full) details of the analysis of gapping; e.g., his dissertation mainly concentrates on other types of ellipsis constructions such as stripping and NPE, and he assumes a TP-deletion analysis for gapping on a par with stripping. For that reason, in this section I will

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[114] This sentence is perfectly acceptable for my informants of English. If so, the argument of the text is also valid for English gapping; e.g., contrary to Johnson's (1996/2004) analysis, the English counterpart of (37a) cannot be analyzed in terms of ATB-movement (of VP).

examine in some detail this type of analysis for Spanish Type-II gapping, largely based on Gengel's (2007, 2013) account we have discussed before (cf. § 2.1.3).

According to this PF-deletion analysis, Type-II gapping in Spanish such as the one exemplified in (38) will have the derivation shown in (39).

(38)   Juan compró los libros, y   María ___ las revistas.
       Juan bought the books and María   the magazines
       'John bought the books, and Mary ~~bought~~ the magazines'

(39)   …   TopP
                    /   \
            María₁   Top´
                        /   \
                     Top   FocP
                             /   \
                    las revistas₂   Foc´
                                    /   \
                              Foc_{[E]}   ✂~~TP~~
                                          /\
                                         / \
                                        /____\
                                   t₁ compró t₂
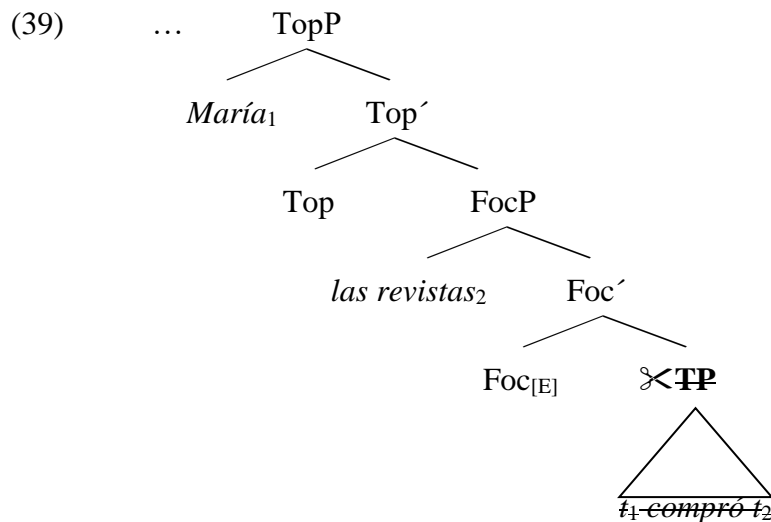
To support the ellipsis of the TP-layer, Saab (2009) provides the examples in (40), where he argues that in gapping, there must be a strict identity in tense between the ellipsis clause and the antecedent clause; i.e. the tense specification of the former must be identical to that of the latter.

(40) a.   *Juan fue al   cine   hoy y Ana ~~va   a   ir~~ al   teatro   mañana.
            Juan went to.the movies today and Ana goes to go to.the theatre tomorrow
            'Juan went to the movies today and Ana ~~will go~~ to the theatre tomorrow'
      b.   *Juan va a ir al   cine   hoy y Ana ~~fue al   cine~~   ayer.
            Juan goes to go to.the movies today and Ana went to.the movies yesterday
            'Juan goes to the movies today and Ana ~~went to the movies~~ yesterday'

                                                              (Saab 2009: 236, (254))

More concretely, he explains the fact as follows. Although in Spanish, a temporal adverbial like *hoy* 'today' is compatible with three different tenses (e.g. past, present, and future) in non-elliptical contexts, it is highly restricted to the temporal properties of the antecedent clause in gapping. Therefore, in non-elliptical contexts (41a), the adverbial *hoy* can modify both the past and future event, though the first conjunct is clearly interpreted as past, whereas in gapping (41b) it can modify the elided material only if this is interpreted as identical to its antecedent.

(41) a. Juan fue al cine ayer y yo fui/voy a ir al cine hoy.

 b. Juan fue al cine ayer y yo ~~fui/*voy a ir al cine~~ hoy.

(Saab 2009: 236, (255))

Thus, if the sentence in (41b) is the result of TP-deletion, then we have a natural explanation on such kind of tense restriction in gapping.[115]

In addition, given the analysis in (39), Case assignment to the subject of the second conjunct will be realized in a standard way; i.e. each TP-conjunct has its own T° and thus the subject will be assigned NOM Case within the TP-conjunct. This correctly predicts that there will be no instance of Spanish gapping wherein the subject of the second conjunct bears Case other than NOM (42a), contrary to what happens in English gapping (42b).

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[115] Brucart (2005) also notes that in the ellipsis clause, there cannot be a verbal form that contributes tense information that contradicts to the one corresponding to the antecedent clause, as shown in (i). He explains that the examples in (ia) and (ib) are grammatical in Spanish because the adverb of the second conjunct *anteayer* 'the day before yesterday' is compatible with the tense morpheme of the antecedent clause, whereas the example in (ic) is ungrammatical because the same adverb is not compatible with the tense morpheme of the antecedent clause.

(i) a. Luis llegó ayer   y Pedro ~~llegó~~   anteayer.
   Luis arrived yesterday and Pedro ~~arrived~~ the day before yesterday
 b. Luis llega hoy y Pedro ~~llega~~ mañana.
   Luis arrives today and Pedro ~~arrives~~ tomorrow
 c. *Luis llegó ayer   y Pedro {~~llegará / llega~~}   mañana
   Luis arrived yesterday and Pedro {~~will arrive/arrives~~} tomorrow
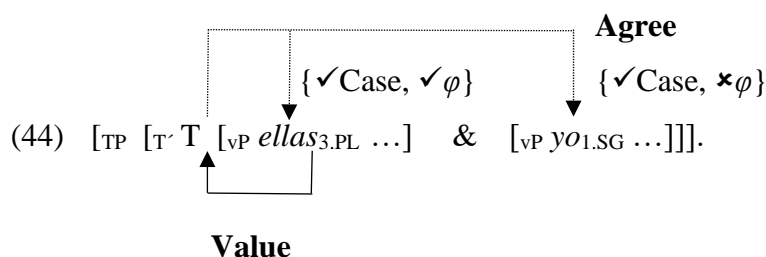
(Brucart 2004: 170, (16))

Having said that, the same tense restriction is in fact not exclusive to the TP-deletion analysis. Johnson's ATB-movement analysis can also explain the fact, as there is only one T-projection above the vP-coordination.

(42) a. Juan compró los libros, y {yo/*me/*a mí} las revistas.[116]

Juan bought the books and {NOM/*ACC/*DAT} the magazines

b. John bought the books, and {I/me} the magazines.

Under this analysis, φ-feature valuation of the subjects will be done in the ordinary way; i.e. the Agree relation between one Probe (T°) and one Goal (DP). Remember that, as I mentioned before, under low-coordination, either the "Sharing" mechanism (cf. § 2.2.1) or the Multiple Agree (cf. § 2.2.2) for the subjects of vP-conjuncts faces difficulties in explaining whether a single T° can bear two distinct unvalued φ-features for two different subjects, and how such unvalued φ-features of T° can be valued by φ-features of only one of the two subjects (43-44).[117]

(43) *Ellas* comieron bocatas y *yo* pincho de tortilla.

they ate. 3.PL Spanish sandwiches and I Spanish omelet

Agree

$\{\checkmark\text{Case}, \checkmark\varphi\}$ $\{\checkmark\text{Case}, \times\varphi\}$

(44) [TP [T′ T [vP *ellas*3.PL …] & [vP *yo*1.SG …]]].

Value

On the contrary, this kind of problem does not arise in the analysis shown in (39) because both conjuncts are TPs, and thus each conjunct contains its own T° for NOM Case assignment as well as φ-feature valuation of the subject.

Finally, the analysis shown in (39) proposes that complex gaps such as (45) are also analyzed in terms of movement of the remnants followed by TP-deletion. For instance, the sentence in (45b) will have the representation in (46).

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[116] One might suggest that default Case in Spanish is NOM, so that the subject of the second conjunct always bears NOM Case. However, Spanish does not have independent instances of default Case; e.g. in NP-coordination, *tú y yo/*tú y me/*tú y (a) mi*, contrary to English, *you and I/you and me* (see Zoerner 1995). That is, although it is not implausible to suggest that NOM is default Case in Spanish, we need some further evidence (e.g. other defective contexts where NOM Case is employed) to support that perspective, and thus I will maintain the claim in the text (see Sánchez Lopéz 1995 who also points out that NOM-as-default Case in Spanish requires a more detailed investigation).

[117] For Type-I gapping with low-coordination, I have already suggested a way to circumvent this problem in terms of locality under the domain extension through head-movement (cf. § 3.2.1). Thus, in the text I am referring only to those previous works that involve low-coordination.

(45) a. Juan (le)   dio   un libro a Luis, y   María ___ ___ a Susana.

Juan (CL.3.SG) gave a   book to Luis and María   to Susana

'John gave a book to Luis, and Maria ~~gave a book~~ to Susana'

b. Algunos han   servido hongos a María, y   otros ___ pez espada ___.

some   have served   mussels to María and others   swordfish

'Some have served mussels to María, and other ~~have served~~ swordfish to

Mary'

(46)   …
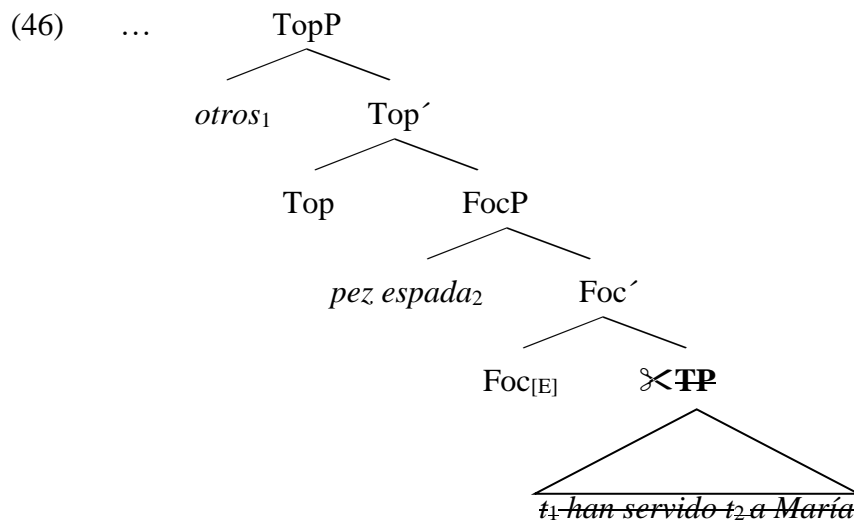
To account for data like (45), on the contrary, low-coordination approaches to gapping are forced to resort to either VP-movement (Johnson 1996/2004, 2009) or movement of the remnants to the low-periphery prior to PF-deletion (Centeno 2011). However, as it turned out (cf. § 2.2.1), VP-movement requires to evacuate material(s) (out of the VP), but only for the purpose of the subsequent ATB-movement (see Vicente 2010 and Boone 2014 for discussions on this operation). Similarly, movement of the remnants to some low-peripheral positions is also tricky in the sense that it is not attested in other environments; i.e. such movement is assumed to be allowed only in context of ellipsis (see also Kubota and Levine 2016 for a similar criticism).

Nevertheless, there are some problems in any kind of movement-plus-deletion analysis. First, as I have noticed before, movement of the remnants is parasitic upon ellipsis; i.e. the former is allowed only in context of the latter, and thus it is not well-motivated. In addition, this reliance clearly leads to the look-ahead problem. Finally, such analysis forces unmovable elements in the general cases to be movable in the context of ellipsis. But why is this so? Is there any empirical motivation for such exceptional movement? So far, no

convincing response has been given to these key questions. Thus, in what follows I will propose an alternative in line with PF-deletion, but without having recourse to movement of the remnants.

3.2.2.2.   Deletion without movement analysis

Following Kimura (2007, 2010), and Abe and Hornstein (2012), Abe (2015) proposes an in-situ analysis of sluicing whereby this construction consists of the deletion of all TP-internal materials except for the *wh*-phrase in situ (see also Sato 2016 for Indonesian sluicing under this analysis). According to Abe, sluicing in (47) has the derivation shown in (48), where he suggests that "the remnant *wh*-phrase in sluicing is assigned the feature [Focus], and deletion applies to a given E(llipsis)-site except a phrase carrying [Focus], where the ellipsis site is one that has the label [Delete] (Abe 2015: 33)".

(47)   He is writing something, but you can't imagine what.

(Abe 2015: 7, (1b); originally from Ross 1969: 252)

(48)   … you can't imagine [CP <~~what~~>[Focus] CQ [~~TP[Delete] he is reading~~ <what>[PF][Focus]~~]~~]

(Adapted from Abe 2015: 33, (34))

In this representation, it is crucial to note that, following Lobeck (1990) and Saito and Murasugi (1990), Abe assumes that the E-site of sluicing must be licensed by a [+wh]-feature of C° which enters into an agreement relation with a *wh*-phrase in its specifier position: The Spec-Head Agreement. That is, under Abe's analysis of sluicing, the *wh*-phrase does undergo movement to [Spec,CP], though the higher copy of the *wh*-phrase is deleted and the lower copy is pronounced at PF. For this mechanism of the low-copy pronunciation, he states that the lower occurrence of *what* in (48) retains its [PF]-feature in accordance with the condition in (49), which is inspired by Chomsky's (1995) PF-condition in (50).

(49)   The head of a chain produced by Move cannot be pronounced unless it has an
       effect on PF output.

(Abe and Hornstein 2012: 183, (40))

(50) α enters into the numeration only if it has an effect on output.

<div align="right">(Chomsky 1995: 270, (76))</div>

To be more concrete, such occurrence of *what* in situ is possible because it is contained in the phrase labeled by [Delete] and thus will be phonetically adjacent to the upper occurrence of *what* since the C$_Q$ does not have a [PF]-feature.

The novelty of this approach to sluicing is that deletion applies to non-constituents, which can be interpreted as follows: ellipsis affects the entire complement clause of Cº, leaving the *wh*-phrase *what* intact because the latter carries the [Focus]-feature.

This kind of analysis provides a different explanation for the absence of island effects in sluicing. Since Ross (1969), it has been widely noticed that island violations in sluicing can be repaired by ellipsis, as shown by the contrast between (51a) and (51b). This fact sharply contrasts with VPE (52), where ellipsis does not repair island violations.

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

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

<div align="right">(Ross 1969: 276)</div>

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

<div align="right">(Merchant 2001: 4-5)</div>

Under Abe's analysis, by contrast, island-insensitivity in sluicing is explained as follows. On the assumption that (some cases of) islands effects arise at PF (Lasnik 2001; Merchant 2001; Fox and Lasnik 2003, a.o.), his analysis proposes that the *wh*-remnant is ultimately pronounced in situ, so that it is predicted that there is no island effect in sluicing.

Abe extends his analysis to FAs in both English and Japanese (see also Abe 2016a,b). He argues that island-insensitivity in non-contrastive FAs (see Fukaya and Hoji 1999; Fukaya 2003, 2007, 2014; Park 2005; Valmala 2008; Santos 2009; Ince 2012; Griffiths and Lipták 2014, a.o.) can be also accounted for by in-situ analysis, in a similar way as it does for sluicing. According to this in-situ analysis, the FA in (53) is derived from (54), where the fragment does not undergo fronting to [Spec,FP] but stays in situ (see also Hankamer

1979 and Morgan 1989 for similar claims in the early generative grammar). Therefore, this analysis contrasts with Merchant's (2004) where first the fragment undergoes movement to a peripheral position (i.e. [Spec,FP]), and then the TP is deleted at PF, as shown in (55).

(53)   A: Who did she see?
       B: John.

(54)   a. [FP [TP she saw JOHN]]

                    ↓ deletion of TP except the focused phrase JOHN

       b. [FP [TP she saw JOHN]]

                                                    (Abe 2015: 74, (51))

(55)   [FP *JOHN*ᵢ [CP *t*ᵢ [TP *she saw t*ᵢ]]]¹¹⁸

                                            ('Merchant-style' analysis)

In this manner, Abe explains why (certain instances of) FAs do not show island effects.

       However, it should be noted that Abe's analysis of FAs is slightly different from his analysis of sluicing. There is a crucial difference between the two: the former does not involve movement of the remnant (cf. (54b)), contrary to what happens in the latter (cf. (48)). In addition, the way to explain island effects is different in each construction. That is, in the case of sluicing, island-sensitivity is explained in terms of PF-effects; i.e. since the lower occurrence of *wh*-phrase is pronounced, there will be no island violation at PF, as mentioned before. In contrast, non-contrastive FAs are argued to be island-insensitive, precisely because nothing has been moved out of the island and thus no island effect is expected, as illustrated in (56).

(56)   a. … [FP [TP they hired someone who speaks SERBO-CROATIAN fluently]]

                    ↓ deletion of TP except the focused phrase SERBO-CROATIAN

       b. … [FP [TP they hired someone who speaks SERBO-CROATIAN fluently]]

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¹¹⁸ In Merchant (2004), the fragment XP is moved from its original position to [Spec,FP], crucially passing through [Spec,CP] on its way. But for unknow reason, it is TP rather than CP that is elided at PF. Thus, it is not true saying that in FAs, Fº bears the [E]-feature that instructs its complement TP to be deleted at PF, because the complement of Fº is CP (and not TP). Merchant claims that when XP crosses an island, all its traces bear island-inducing features, but the one in [Spec,CP] survives deletion process and thereby inducing island effects. Note that if one assumes that XP undergoes fronting directly to [Spec,FP], it cannot explain island effects because there will be no trace in [Spec,CP] left behind after the PF-deletion.

Adopting Abe's in-situ approach to FAs (and not sluicing), in what follows I will consider how this type of analysis can be applied to Type-II gapping in Spanish.

Before analyzing the data in terms of what I will call "deletion without movement", I will assume that, following Munn (1992, 1993), a.o., two conjuncts are coordinated by adjunction of one to the other (see Borsley 2005 who extensively argues against the &P (or ConjP)). I will also assume that conjuncts of gapping build in parallel, like Nunes (1999, 2001) where he proposes that the derivations of the conjuncts take place simultaneously until they get merged to form a coordinate structure. Finally, I will adapt Abe's F(eature)-assignment for my analysis of gapping; e.g., TP is assigned [Delete] as ellipsis site, and the remnants are assigned discourse-related features like [Topic] and [Focus].[119]

For the identity requirement in gapping, it is worth noting that T(ense)-feature of Tº is crucial for the computation of identity in TP-deletion. This is because, as discussed in § 3.3.1, different tense specifications cannot be allowed in gapping; e.g., *John ate apples, and Mary (ate/*eats/*is eating/*will eat) bananas*. Notice here that φ-features of Tº are not crucial for identity; e.g., *Juan comió manzanas, y yo ~~comí~~ plátanos* (see § 3.2.3 for more details). Although both features are contained within the bundles of features in Tº, the reason for the difference between the two is probably that φ-features (as well as Kase-feature) of Tº are uninterpretable, contrary to the T-feature, which is interpretable in the sense of Chomsky (1995) (see a.o. Pesetsky and Torrego 2001, 2004, 2007 for a detailed discussion on interpretable/uninterpretable features and some consequences for Case assignment and EPP-satisfaction).

It has been widely noted that the remnants of gapping must be in a contrastive relation with their correlates (Johnson 1996/2004; Winkler 1997, 2005). I agree with this statement, but I slightly modify it as follows: the remnants require to be contrastive, being topic in the case of the subject remnant and focus in the case of the object remnant. For the information-structural status of the remnants, I follow Eguren (2010) who argues that in Spanish nominal ellipsis, focus on the remnant constitutes a regular case of focus in-situ, which is analyzed as *los estudiantes de Madrid y [DP los ~~estudiantes~~ [de Barcelona]F]* 'the students from Madrid and the ones from Barcelona'. Note that Eguren's analysis as such is also in-

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[119] Since both sluicing and FAs do not involve more than one remnant, Abe does not explore whether F-assignment to two remnants is possible (or not). Following crucially Kuno (1976), I assume that in gapping, the first remnant (e.g. the subject) is contrastive topic and the second (i.e. the object) is contrastive focus.

situ in nature, without movement of the DP-internal remnants (*contra* Ticio 2003, 2005, 2010; Ntelitheos 2004; Corver and van Koppen 2005, 2006, 2007; Eguren 2007/2009; Cinque 2012, a.o.), at least for Spanish nominal ellipses. In a similar way, I suggest that the remnants of gapping receive in-situ topic and focus, and therefore they do not have to undergo movement for information-structure reasons.[120] However, contrary to Eguren (2010) (and many others), I will not assume the [E]-feature (of Merchant 1999, 2001) for the elided material in Spanish gapping. Essentially following Abe (2015, 2016), I will be arguing that gapping involves the process of eliding all but the contrastive material(s) without using the [E]-feature (see also Bruening 2015, Messick and Thoms 2016, and Jung *to appear* a,b for similar accounts of other ellipsis constructions).[121]
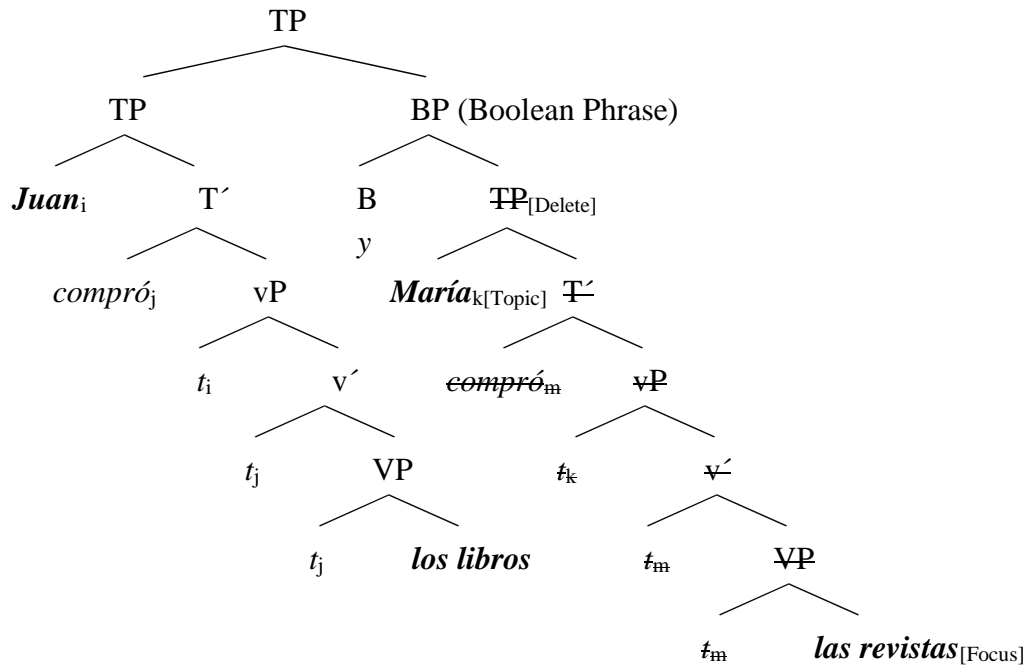
With these assumptions in mind, I propose that Type-I gapping such as (57) has the derivation shown in (58) where deletion does not affect the contrastive [Topic] and [Focus] materials of the second conjunct (Both the remnants and their correlates are represented in boldface).

(57) Juan compró los libros, y María ___ las revistas.

Juan bought the books and María   the magazines

'Juan bought the books, and Mary ~~bought~~ the magazines'

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[120] See Eguren (2007/2009) for a detailed criticism on DP-internal focus movement in the analysis of Spanish nominal ellipses. Recall that we have already seen in § 2.1 that movement of the remnants to [Spec,TopP] and [Spec,FocP] face some problems that could not easily be accommodated without further assumptions; e.g., when gapping involves more than three remnants, it is hard to believe that the last two remnants undergo focus movement and appear one following the other. As far as I can reach, there is no instance of "FocP$_1$-FocP$_2$" at the left-periphery (see Rizzi 1997: 308).

[121] Eguren suggests that F(ocus)-feature as well as [E]-feature "are introduced as part of lexical selection and belong to the class of non-intrinsic or optional formal features (like plural or Kase; see Chomsky 1995), that do not belong to the lexical entries listed in the lexicon, but are added as the selected lexical items enter the Derivation or Lexical Array (i.e. the collection of items, or lexical working space, from which the derivation starts off) (Eguren 2010: 454)". I depart from this perspective because both the F-feature and the [E]-feature are not primitive features of any (functional) category. Notice that Kase and φ-features are primitive of nominals, but at least F-feature is closely related to discourse (structures). In Eguren's view, F-feature is semantically related to Rooth' (1992) Alternative Semantics for nominal ellipses. However, this perspective cannot extend to gapping because the elided material (i.e. the verbal complex) does not have much to do with alternatives introduced by the general semantic function of focus. A detailed comparative study between nominal ellipsis and gapping is beyond the scope of this dissertation and I will leave it for future research.

(58)

```
                                    TP
                    _____|_____
                   TP                               BP (Boolean Phrase)
          _____|_____              _____|_____
       Juanᵢ            T´              B              T̶P̶[Delete]
                    _____|_____          y         _____|_____
                 compróⱼ      vP             Maríaₖ[Topic]   T̶´̶
                          _____|_____                    ____|____
                        tᵢ        v´               c̶o̶m̶p̶r̶ó̶ₘ      v̶P̶
                             _____|_____                    ____|____
                           tⱼ       VP                   t̶ₖ       v̶´̶
                                 ____|____                    ____|____
                               tⱼ    los libros            t̶ₘ      V̶P̶
                                                              _____|_____
                                                            t̶ₘ    las revistas[Focus]
```

The important aspect of this analysis is that the remnants have not undergone movement out of the ellipsis site (i.e. TP), in line with Abe's in-situ analysis of FAs.[122] Notice that, following Holmberg (1999, 2001), Rouveret (2006, 2011, 2012), Gengel (2007, 2013), Gallego (2010), LaCara (2015), and Saab (2015) (*contra* Aelbrecht 2010, 2012, 2016), I assume that the deletion mechanism shown in (58) is understood as Non-Spell-Out (NSO) of an existing structure; i.e. it is not the case the entire phrase is literally removed, but unpronounced at PF. Thus, deletion in my analysis will be essentially NSO of the materials (in strikethrough).[123]

Importantly, the non-constituent deletion involved in (58) is not a problem for an analysis of ellipsis like the present one because it proposes that ellipsis is PF-phenomenon. That is, non-constituent deletion is only problematic if ellipsis is understood as syntactic deletion, as in Sag (1976), Hankamer and Sag (1976), Hankamer (1979), and Baltin (2003). This is because if deletion affects syntactic nodes, then we expect that a syntactic node and everything it contains are deleted in syntax.[124] On the contrary, if deletion happens at PF, it operates after syntax and thereby it does not need to be restricted to syntactic constituents.

---

[122] Remember that his analysis of sluicing does involve movement and low-copy pronunciation that yields an instance of in-situ *wh*-phrase.

[123] In fact, the issue concerning NSO is more complex that I have just mentioned in the text; a.o. it is closely related with phase-based approach to ellipsis (and many other things) which is beyond the scope of this dissertation.

[124] The general problem of this approach to ellipsis is that it is not clear how we can then interpret the entire output sent to LF without having forms. Under the syntactic deletion approach to ellipsis, there is no feasible way to go back to overt syntax to get information about the elided portion, as far as I can reach.

In this sense, I contend that non-constituent deletion in my analysis is not problematic theoretically.

Notice that, according to the analysis given in (58), both conjuncts of gapping involve other syntactic operations that usually take place in other contexts; e.g., verb movement occurs in each conjunct. In the literature, it has been suggested that the [E]-feature of the ellipsis clause blocks syntactic operations like head-movement, such as in matrix sluicing, pseudogapping, and nominal ellipsis (e.g. Lasnik 1999, 2001; Merchant 2001; Boeckx and Stjepanović 2001; Craenenbroeck 2008; Craenenbroeck and Lipták 2008; Aelbrecht 2010, 2012; Saab and Lipták 2016, Sailor *to appear*, etc.). Although this issue is worth exploring and tackling in a detailed way, it is of no (much) importance for my analysis of gapping-as-TP-deletion because, even if we assume the [E]-feature, it should be encoded in C° (and not T°) to license the TP-deletion, and therefore verb movement to T° will not be affected by the potential [E]-feature in C°.

As for the subject movement involved in (58), I suggest that it does not have anything to do with the EPP-feature of T°, which is satisfied by verb movement itself in a language like Spanish. Instead, following Miyagawa (2005, 2006, 2010), I assume that in (58) subject movement is driven by the [Top]-feature of T°, which is inherited from C°, so that the subject is triggered to satisfy that feature, and not the EPP-feature.[125] In this manner, we can derive the SVO order in (the first conjunct of) the gapping sentence in (57). At any rate, what I claim in (58) is that the analysis does not postulate any projection related to information structure for the remnants; i.e. they stay inside the TP where they are usually located in other (non-elliptical) contexts. Recall that, as discussed throughout chapter 2, other types of PF-deletion analysis have problems with object movement to [Spec,FocP], which is assumed either above or below the TP. As claimed by Kubota and Levine (2016), the main objection to this kind of analysis was that in some way movement-plus-deletion

---

[125] This author argues that movement to [Spec,TP] is discourse-driven in languages like Japanese and Korean, in contrast to English (or other Indo-European languages) where such movement is basically EPP-driven. However, Jiménez-Fernández (2010) departs from this strict division and shows that Spanish is both agreement- and discourse-prominent. He suggests that even in a language like Spanish, SVO is obtained by raising the subject to [Spec,TP], with a proviso that the Edge Feature (EF) under T° works in conjunction with both φ-features and a [Top]-feature of T°, which is inherited from C° (see also Jiménez-Fernández and Miyagawa 2014). In any case, the crucial point is that to derive the SVO order in Spanish, it is not implausible to assume subject movement to [Spec,TP], even though verbs move to T° (see Zagona 2002 and Gutierrez Bravo 2007). In any case, subject movement to that (or any other) position is not crucial for my analysis in (63); it would be immaterial even if the subject is moved to [Spec,TopP] above the TP, as also suggested for preverbal subjects in Spanish. Importantly, the potential [E]-feature in C° does not block subject movement to the specifier position of TopP; i.e. bleeding by that feature has no effect on XP-movement, as described in the literature (see a.o. Saab and Lipták 2016).

is required to posit movement that is not allowed in contexts other than ellipsis (see Yoshida, Nakao, and Ortega-Santos 2014 for a similar claim). In contrast, such kind of problem does not arise in the current analysis, so that I consider that my analysis has a considerable advantage over other analyses that involve movement of the remnants.

Furthermore, the analysis shown in (58) does not face any problem with complex gaps illustrated in (59). For example, the sentence in (59b) will have a derivation like (60), but again with no movement of the remnants out of the TP.

(59) a. Juan le dio un libro a Luis, y María ___ ___ a Susana.
          Juan CL gave a   book to Luis and María   to Susana
          'Juan gave a book to Luis, and Mary ~~gave a book~~ to Susana'
      b. Juan le dio un libro a Luis, y María ___ un disco ___.
          Juan CL gave a   book to Luis and María   a disk
          'Juan gave a book to Luis, and Mary ~~gave~~ a disk ~~to Luis~~'

(60)

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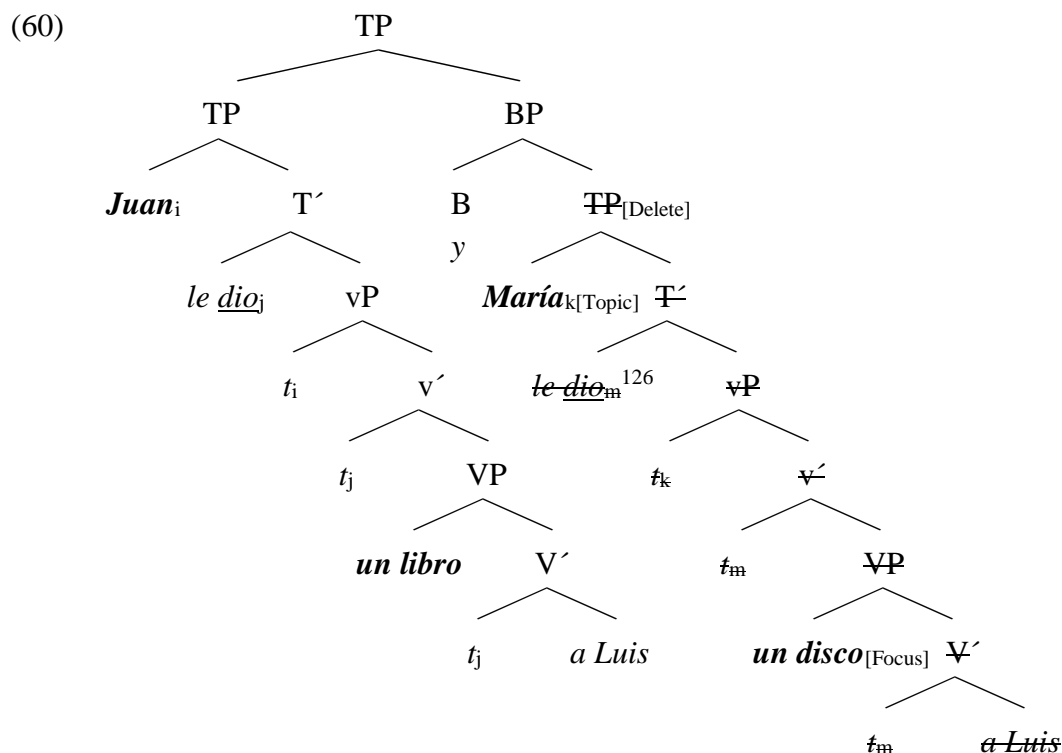
[126] I assume that that pronominal DAT clitics are agreement markers (Borer 1984; Saltarelli 1987; Suñer 1988; Fernández Soriano 1989; Roca 1992; Franco 1993, 2000; Fontana 1993; Landa 1995; Sportiche 1996; Barbosa 2000; Anderson 2005; and Ormazabal and Romero 2007, 2010, 2013). I further assume that they are PF-realizations of φ-features of T° in the sense of Distributed Morphology (Halle and Marantz 1993). According to this premise, when the TP of the second conjunct is to be elided at PF, there will be no fully realized DAT clitic form in T°, so that it does not affect identity in ellipsis.

This kind of analysis does not need to concern the complexity of the gap. This is because deletion without movement affects all but the contrastive [Topic] and [Focus] materials, so that we can avoid a number of unmotivated movements (e.g. in Johnson's analysis) as part of the deletion process involved in (59b).

Similarly, the current analysis can also easily account for examples like (61) where the second conjunct involves three remnants. For instance, the sentence in (61a) will have the derivation shown in (62), where the remnants stay in situ and survive deletion process because they are computed as contrastive, so that deletion does not affect those remnants.

(61) a. Juan le dio   un libro a Luis, y   María, un disco a Susana.
          Juan CL gave a book to Luis and María   a   disk   to Susana
          'Juan gave a book to Luis, and Mary ~~gave~~ a disk to Susana'

      b. Juan compró un libro por la   mañana, y   María, un disco por la tarde.
          Juan bought a   book by the morning and María a   disk by the afternoon
          'Juan bought a book in the morning, and María ~~bought~~ a disk in the
           afternoon'

      c. Juan puso los libros en la   estantería, y   María, los discos en la mesa.
          Juan put   the books on the shelve   and María   the disks   on the table
          'Juan put the books on the shelve, and María ~~put~~ the disks on the table'

(62)

```
                                    TP
                         ┌──────────┴──────────┐
                        TP                     BP
                  ┌──────┴──────┐        ┌──────┴──────┐
              *Juan*ᵢ          T´        B           ~~TP~~[Delete]
                          ┌────┴────┐    *y*     ┌──────┴──────┐
                      *le dio*ⱼ     vP        *María*ₖ[Topic]  ~~T´~~
                             ┌──────┴──────┐        ┌──────────┴──────────┐
                            tᵢ            v´    ~~le dio~~ₘ              ~~vP~~
                                    ┌──────┴──────┐          ┌──────────┴──────────┐
                                   tⱼ            VP         ~~t~~ₖ                 ~~v´~~
                                          ┌──────┴──────┐             ┌─────────────┴─────────────┐
                                      *un libro*        V´          ~~t~~ₘ                       ~~VP~~
                                                   ┌────┴────┐                          ┌──────────┴──────────┐
                                                  tⱼ      *a Luis*              *un disco*[Focus]           ~~V´~~
                                                                                              ┌─────────────┴─────────────┐
                                                                                           ~~t~~ₘ                  *a Susana*[Focus]
```
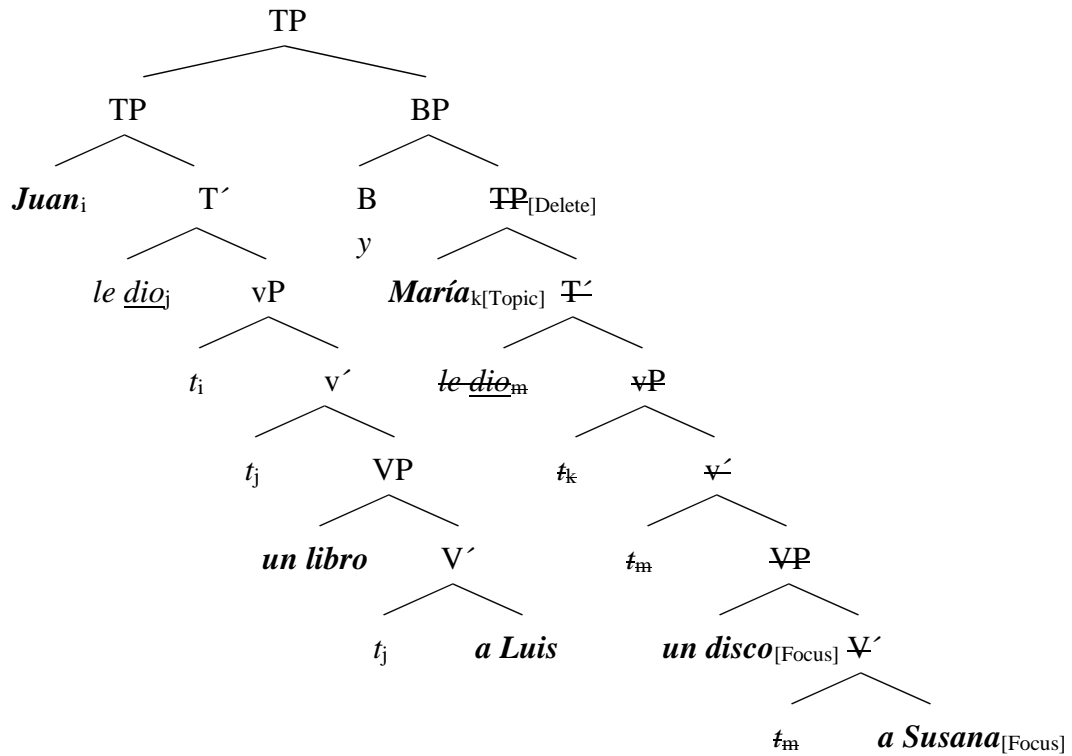
In this configuration, both the direct and the indirect objects are assigned (contrastive) [Focus]. For this [Focus]-assignment, one may wonder how two elements can be focused in a sentence. However, two (or multiple) instances of focus in a clause (Krifka 1992; Féry and Ishihara 2005; Büring 2006, a.o.) are impossible only if they involve movement (i.e. focus movement) in syntax. In the literature, Rizzi (1997) argues that at the left-periphery, the sequence 'Foc$_1$-Foc$_2$' is ruled out for information-structure reasons, but this does not mean that such sequence is impossible in other contexts that do not involve focus movement; e.g., in-situ focus. Since in my analysis both the direct and the indirect objects do not undergo focus movement (to the left-periphery), they can be assigned [Focus] without any problems, as two instances of in-situ focus. Alternatively, assuming a VP-shell structure for ditransitive (Larson 1988), we may assume that what is (contrastively) focused is the whole VP (or vP), which is possible because the verb has moved out of the vP due to verb movement. Either way, we can justify the two instances of the in-situ focused elements in (62).

Another advantage of the analysis proposed in (58) is that it does not have to assume that elements that are unmovable in the general cases can undergo movement in context of

gapping.[127] For example, it is well-known that VP/vP-adverbials such as *mucho* 'much' and *un montón* 'a lot' cannot appear in some position preceding the inflected verb (63).

(63) a. A mí   me gusta *mucho/un motón* leer los libros cómicos.

to me CL like   much/a lot   read the books comic

'I like much/a lot to read books comic books'

b. *A mí *mucho/un montón* me gustan los libros cómicos.

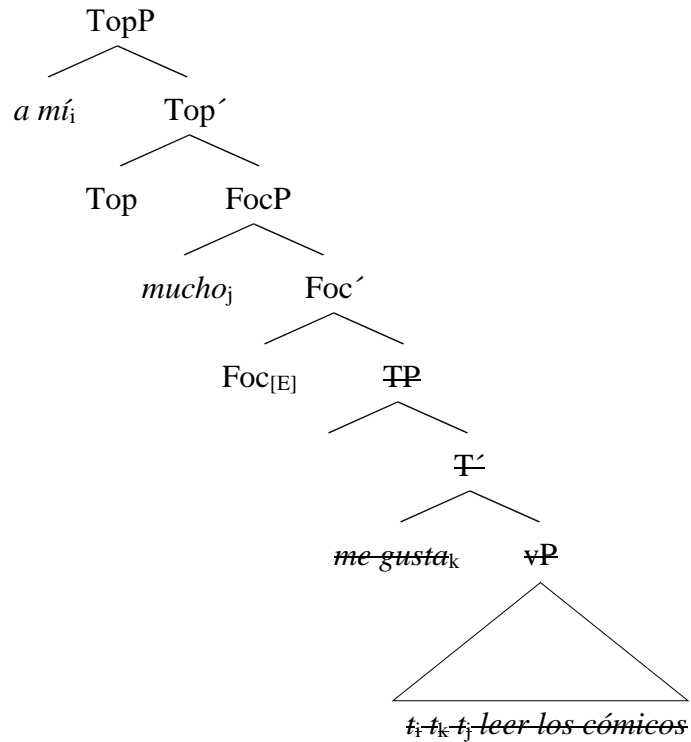c. **Mucho/un montón*, a mí me gustan los libros cómicos.

For gapping sentences like (64), the movement-plus-deletion analysis has no choice but to assume that the quantificational adverb *mucho* undergoes movement to some position above the inflected verb (65).

(64) A Juan le   gusta *poco* leer   los libros cómicos, y/pero a mí *mucho* (___).[128]

to Juan CL like   little read the books comic   and/but to me much

'Juan likes little to read comic books, and/but I ~~like~~ much ~~to read them~~'

---

[127] I assume that only arguments can undergo movement. Following Pollock (1989), Iatridou (1990), Johnson (1991), Bowers (1993), Ernst (1998), Shaer (1998), Haider (2000), and Potsdam (2007), a.o., adjuncts appear in syntax adjoined to some maximal projections and once adjoined, they do not undergo further movement.

[128] It is not clear whether the Spanish verb *gustar* 'like' of the second conjunct involves object DP (or not); it has been considered that *gustar* is the verb taking the so-called "Null Complement Anaphora" (Hankamer and Sag 1976). But my argumentation of the text is not affected by this matter because the verbal complex of that conjunct is in any case missing and both the subject and the adverb remain as remnants.

(65) …

```
                      TopP
                    ╱      ╲
              a mí_i      Top´
                        ╱      ╲
                     Top       FocP
                             ╱      ╲
                      mucho_j       Foc´
                                  ╱      ╲
                           Foc_[E]       T̶P̶
                                       ╱      ╲
                                            T̶´̶
                                          ╱      ╲
                                  m̶e̶ ̶g̶u̶s̶t̶a̶_k      v̶P̶
                                                    ╱▲╲
                                                 t̶_i̶-t̶_k̶-t̶_j̶ l̶e̶e̶r̶ ̶l̶o̶s̶ ̶c̶ó̶m̶i̶c̶o̶s̶
```

However, it is by no means clear why the quantificational adverb *mucho* can undergo movement over the inflected verb in this case only, contrary to what happened in (63b). In the literature, many researchers make use of the so-called "exceptional" movement in the context of ellipsis (see Boone 2014 and Weir 2014 for some attempts to accommodate such movement). But why does such movement exist? Ellipsis is not a feature that triggers movement (of something). Notice that Merchant (1999, 2001) does not state that the [E]-feature of Cº is the trigger of movement of *wh*-phrase; it is the [*wh*]-feature which triggers movement. So more needs to be done with exceptional movement of the remnants, if any.

In contrast, my analysis with deletion without movement does not face this kind of problem: in those examples, VP/vP-adverbials do not undergo movement for the purpose of ellipsis and thereby such issue would be immaterial at the outset. Under my analysis, the sentence in (64) will have the derivation shown in (66) where the quantificational adverb *mucho* does not undergo movement and stays in its first-merge position.
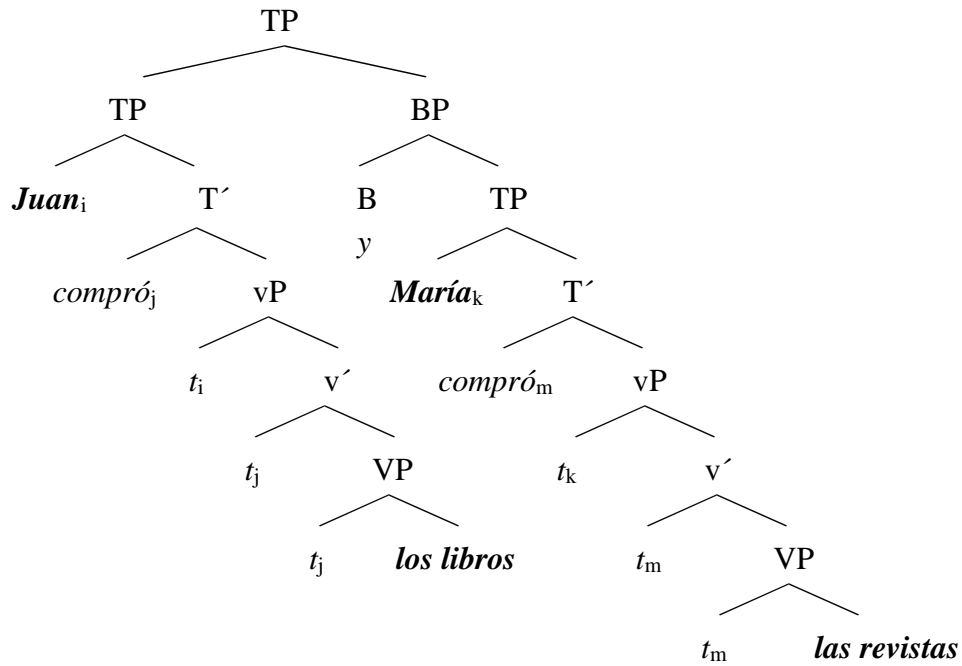
(66) …
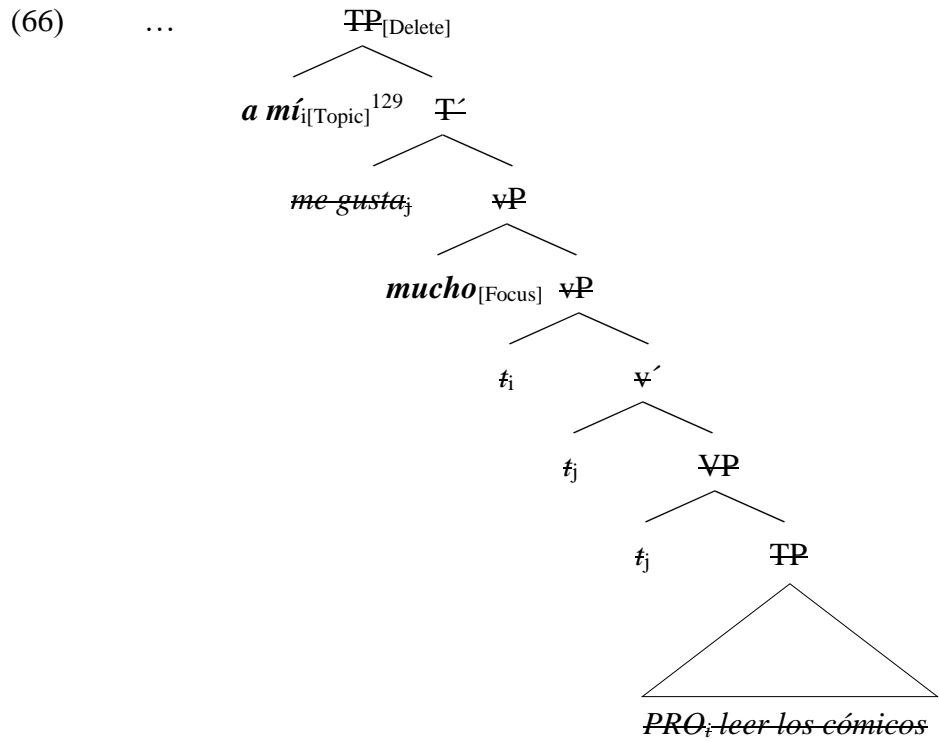
More generally, I argue that deletion without movement is conceptually more desirable than movement-plus-deletion for the following reasons.

It preserves the thesis that ellipsis is an optional phenomenon of natural language, and an ellipsis and its overt counterpart are both sides of the same coin. That is, there is no such thing like ellipsis-specific configuration; otherwise, we cannot preserve that thesis because ellipsis would not be optional anymore, as in the case of movement-plus-deletion analyses where ellipsis becomes obligatory. Under deletion without movement, it does not matter whether ellipsis happens or not; e.g. there is no problem if ellipsis does not occur in the second conjunct because the resulting sentence converges at PF (as well as at LF) (67).
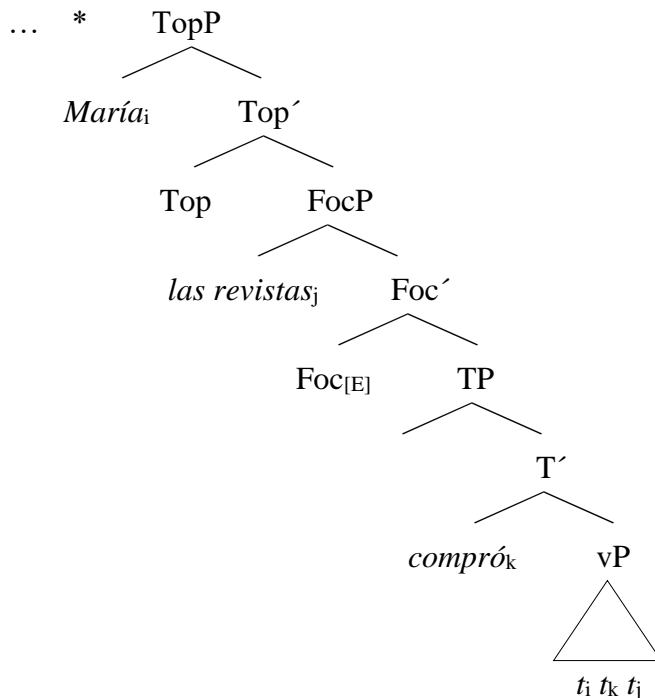
---

[129] I assume that the correlate PP *a mí* of the DAT quirky subject *me* occupies the specifier of TP (see Masullo 1992; Fernández-Soriano 1998; Rigau 1999 for quirky subject in Spanish impersonal constructions). Nothing hinges on this assumption.

(67)

```
                              TP
                   ┌───────────┴───────────┐
                  TP                        BP
            ┌──────┴──────┐          ┌──────┴──────┐
         Juanᵢ           T´          B             TP
                    ┌─────┴─────┐    y       ┌──────┴──────┐
                 compróⱼ        vP         Maríaₖ          T´
                           ┌────┴────┐              ┌───────┴───────┐
                          tᵢ         v´          compróₘ           vP
                                ┌────┴────┐                   ┌──────┴──────┐
                               tⱼ         VP                 tₖ            v´
                                     ┌────┴────┐                     ┌──────┴──────┐
                                    tⱼ     los libros              tₘ            VP
                                                                           ┌──────┴──────┐
                                                                          tₘ        las revistas
```

On the contrary, under the movement-plus-deletion analysis, if ellipsis does not happen at PF, the resulting output turns out to be ungrammatical precisely due to the illicit word order among the constituents (68).

(68)   …   *   TopP

```
              TopP
        ┌──────┴──────┐
     Maríaᵢ           Top´
                ┌──────┴──────┐
               Top            FocP
                        ┌──────┴──────┐
                   las revistasⱼ      Foc´
                                ┌──────┴──────┐
                             Foc[E]           TP
                                         ┌────┴────┐
                                                   T´
                                              ┌────┴────┐
                                          compróₖ       vP
                                                        △
                                                     tᵢ tₖ tⱼ
```

Notice that deletion should not be applied to a configuration like (68) for independent reasons. As will be shown later, having clitic or not plays a crucial role in allowing Spanish gapping (cf. § 3.3.3). Accordingly, the elided portion of (68) should be [TPE *las compró…*]

due to the movement of *las revistas*. If so, we have a problem of minimal identity between the antecedent and the target of ellipsis because the former does not bear any clitic due to the lack of CLLD. Proponents of movement-plus-deletion might want to claim that in that case, *las compró* of the ellipsis clause should be identical to *compró* of the antecedent clause for the purpose of ellipsis. However, as will be discussed in detail in § 3.3.3, this cannot be correct for Spanish because under the "Big-DP" hypothesis (see Torrego 1995; Uriagereka 1995; Belletti 1999, 2005; Cecchetto 2000, a.o.), ACC clitics undergo movement (i.e. clitic doubling) in overt syntax and thus must be present at the point at which two verbal complexes are about to calculate the identity.[130]

The idea behind any movement-plus-deletion analysis is that it is an instance of ellipsis, and not product of ATB-movement (or PM). Accordingly, if we follow that ellipsis happens optionally in natural language, any analysis following movement-plus-deletion actually goes against its essence because it renders ellipsis obligatory rather than optional. For this problem, one might suggest that it is the economy consideration that makes ellipsis obligatory. However, we know that there are many cases where phrases (or sentences) are equally grammatical with or without ellipsis. Some of them are illustrated in (69) to (71). Therefore, economy cannot be the trigger of obligatory deletion, though it may be a reason for the preference for ellipsis.

(69) Los estudiantes de Madrid y   los (estudiantes) de Barcelona.   (*Nominal ellipsis*)
     the students   of Madrid and the (students)   of Barcelona
     'The students from Madrid and the ones/students from Barcelona'

(70) John ate apples, and Bill (ate apples) too.   (*Stripping*)

(71) John ate something, but I don't know what (he ate).   (*Sluicing*)

---

[130] This is one of the crucial differences between the DAT and the ACC clitics in languages like Spanish; the former is a PF-realization of φ-features in T°, whereas the latter is the result of syntactic movement triggered by φ-features. In fact, the non-uniformity of DAT and ACC clitics has already been advocated by Sportiche (1996), Roca (1996), Bleam (1999), and Gutiérrez-Rexach (2000), a.o. As shown in earlier sections, syntactic identity is also somehow relevant at least for the syntactic structures hosting doubled ACC clitics, whereas φ-features of DAT clitics are not relevant for the computation of identity. This result leads me to conclude that both syntactic and semantic identities are needed for ellipsis licensing. I will leave a detailed discussion of this for future research.

Proponents of movement-plus-deletion might resort to Merchant's (1999, 2001) [E]-feature to explain the obligatoriness of ellipsis by stating that this feature is what forces some materials to be unpronounced because the phonological function of that feature is "instructing its complement to be deleted at PF". However, the question that need to be asked is why such movement is not possible when there is no [E]-feature. Here I would like to note that in the case of sluicing, movement of a *wh*-phrase is possible not because of the [E]-feature but due to the [wh]-feature in Cº, whereas in other cases, movement of a remnant is assumed to be possible only for the purpose of deletion.

Additionally, I consider that the analysis shown in (58) is more economical than other analyses in the following sense. In my analysis, the deletion process does not involve any sub-process such as movement of the remnants, which is a crucial part of the movement-plus-deletion analysis. Regardless of being part of the analysis or assumption for that, movement of the remnants is ultimately one more process. On the contrary, my analysis is composed of only the NSO, along with the contrastiveness on the remnants, which does not require any movement for ellipsis. Notice that, under my analysis, both verb movement and subject movement (illustrated in (58)) occur independently from ellipsis; i.e. they are just regular syntactic operations in any context of Spanish (or other similar languages).[131]

One initially problematic prediction of the analysis given in (58) is that there will be no island-sensitivity in gapping because the object remnant does not undergo movement prior to PF-deletion. This prediction is not borne out because gapping appears to be island-sensitive (72a), similar to other ellipsis constructions such as VPE (72b), pseudogapping (72c), and stripping (72d), all of which sharply contrast with sluicing where island violations can be repaired by ellipsis, as shown in (73).

(72) a.   *John wondered what to cook today and Peter, tomorrow.

(Neijt 1979: 138, (73))

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

remember which they do.   (Merchant 2001: 4-5)

c.   *Sally danced to impress Maribel, but she didn't Paul.

(Agbayani and Zoerner 2014: 202, fn12)

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[131] In line with the analysis offered in (58), English (Type-II) gapping would have similar derivations where the verb stays inside the vP because the language does not have verb movement, and the subject undergoes movement to [Spec,TP] to satisfy the EPP-feature of Tº.

d.   *We have interrogated the burglar who stole the car already, but not the

diamonds.   (Reinhart 1991: 374)

(73)   They want to hire someone who speaks a Balkan language, but I don't remember

which (Balkan language) *([they want to hire someone who speaks]).

(Merchant 2001:4-5)

However, as claimed by Kubota and Levine (2016: 119-121), any effort to establish the adherence of gapping to island constraints basically fails to account for why examples such as (74) are acceptable, even though they involve island configurations from which something has been moved (Examples are taken from the authors).

(74)   a.   [Wife of a couple discussing who decides what to cook for which meal]: Ok,

how about this: I get to decide what to cook for LUNCH, and you, for DINner.

(Wh-Island)

b.   ROBIN believes that everyone pays attention to you when you speak FRENCH,

and LESLIE, GERMAN.

(Adjunct Condition, Culicover and Jackendoff (2005: 273))

c.   One lab assistant needs informants who speak Japanese, and the other, German.

(Complex NP Constraint)

d.   I don't think we need worry about John harassing us. Threats directed at ME

would offend his WIFE, and at YOU, everyone else!

(Subject Condition)

Clearly, this result is unexpected from movement-plus-deletion analyses of gapping.

Merchant (2015: 14) also provides examples like (75) where island effects seem to be illusory in gapping.

(75)   a.   He spoke in the kind of tone a lawyer might use to address a jury, or a serious

professor of history his students.

(Tom McCarthy, Remainder, Vintage: New York, 2005, p.236.)

b. If this narrative were a quotidian account of the history of Russia, this chapter would be a proletarian's account of the Great October Soviet Socialist Revolution of 1917, if a history of France, the beheading of Marie Antoinette, if a chronicle of America, the assassination of Abraham Lincoln by John Wilkes Booth.

(Marisha Pessl, Special topics in calamity physics, Vintage: New York, 2006, p. 311.)

c. No, this was the torturous, clammy kind, when one's pillow slowly takes on the properties of a block of wood and one's sheets, the air of the Everglades.

(op.cit., p. 347.)

Interestingly, the Spanish counterparts of (74a), (74b), and (74c) are acceptable for native speakers who I have consulted, as shown in (76).

(76) a. [Esposa de una pareja discutiendo quién decide lo que (se) va a cocinar]: Vale, qué te parece esto: decido yo qué cocinar PARA LA COMIDA, y tú, PARA LA CENA.

b. Un asistente del laboratorio de UPV necesita informantes que hablen EL JAPONÉS, y el otro, EL ALEMÁN (para los experimentos de procesamiento).

c. Juan cree que todo el mundo (te) presta atención a ti cuando hablas tú EN FRANCÉS, y Luis, EN ALEMÁN.

These examples show ultimately that there is no robust correlation between gapping and island constraints. In fact, my analysis shown in (58) correctly predicts that there will be no island-sensitivity in gapping: because the object remnant does not undergo movement out of the island.[132]

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[132] Island effects may result from something else, and not from the fact that something is moved out of an island; otherwise, examples such as (74), (75), and (76) remain mysterious in the first place. Recently Potter and Yoshida (2016) claim against previous researches (e.g. May 1991, Reinhart 1991, Reinhart and Rooth 1991, and Depiante 2000), showing that stripping also improves island violations (i), contrary to (72d).

(i) Ann: James collaborated with the researcher who studies computer security.
    Bill: No, computer networking.

In fact, this example is not canonical instance of stripping that occurs in coordinate structures. But the following example modeled from (i) is fairly acceptable, as shown in (ii).

(ii) ?James collaborated with the researcher who studies computer security, and not computer networking.

All things considered, I conclude that the analysis proposed in (58) is supported by empirical data, and is also conceptually sound and implemented with integrity to be used as an alternative to other analyses that make use of movement of the remnants.

3.2.3.   Accounting for non-canonical word orders in Spanish gapping

As I have argued in the previous sections, the crucial point of my proposal is that the scope interpretations are obtained from two different syntactic structures, contrary to previous researches where it has been argued that gapping involves invariably low-coordination (or high-coordination). Evidently this kind of approaches cannot be correct because if they were right, then the existence of the narrow-scope reading would be inexplicable in the first place. In fact, Johnson (1996/2004) acknowledges that the two scope readings are equally possible in English gapping (see also Potter 2014, Frazier 2015, and Potter *et al* 2015, *to appear*, where they also suggest that two scope readings should be the results of different configurations). As mentioned in § 2.2.1, Johnson (2009) attempts to derive the narrow-scope reading in terms of ATB-movement of various scope elements, though he ultimately

According to my informants of English, this sentence is OK in comparison with (72d).
    Notice that not all cases of VPE are impossible to be improved by ellipsis. For example, Schuyler (2001) argues that if VPE involves a contrastive focus, it allows *wh*-movement out of the ellipsis site (iii).

(iii)   a.   I don't know which puppy you SHOULD adopt, but I know which one you SHOULDN'T.
         b.   I know which woman HOLLY will discuss a report about, but I don't know which woman YOU will.

Fox and Lasnik (2003) observe that this kind of improvement is also observed even if the antecedent clause does not involve overt movement (iv).

(iv)   a.   He likes ABBY, but I don't know who else ($^?$he does).
        b.   He said he likes ABBY, but I don't know who else ($^{??}$he did).

In addition, even some cases of sluicing do not seem to be repaired by ellipsis (see Ross 1969).

(v)   a. $^{?*}$I know that Meg's attracted to Harry, but they don't know who.
        b. $^{?*}$Since Jill said Joe had invited Sue, we didn't have to ask who.
        c.   *She said she had spoken to everybody, but he wasn't sure who.

(Chung, Ladusaw, and McCloskey 1995: 253)

For this kind of data, it has been argued that the inner antecedents of sluices must be indefinites, and from this, we know that the type of identification involved in those examples is semantic in nature. Thus, the movement operation involved in sluicing seems to be irrelevant to explain data in (v). In any case, even if one assumes that gapping is TP-deletion, the reason why this ellipsis construction cannot be improved by deletion still remains to be clarified in some way. The failure of island repair in gapping may have something to do with the lack of an independent feature-driven movement involved therein, in comparison with sluicing, which has *wh*-movement to [Spec,CP] independently from having sluicing (or not). Interestingly, we know that neither stripping nor VPE (or pseudogapping) involves that kind of feature-driven movement. I will leave this issue for future research.

fails to derive gapping in a satisfactory way (see a.o. Kubota and Levine 2016 for details on the objection to ATB-movement to obtain narrow-scope interpretations of negation (or modals)). In short, with the notable exception of Valmala's (2016) work, the possibility of two types of gapping has not been seriously considered in the literature so far, where both Type-I gapping and Type II gapping were basically described as an illustration of one single phenomenon. As it turned out, however, the presence of a prosodic pause (or lack thereof) plays a crucial role in explaining scope facts from Spanish gapping, and all the contrasts observed so far are completely unexpected if there is only one single type of gapping. That is, gapping is an epiphenomenon of more than one derivation in syntax.[133]

Given the hypothesis that there are two types of gapping in Spanish, one interesting prediction is that Type-II gapping (cf. § 3.2.2) should allow embedded gaps, whereas Type-I gapping (cf. § 3.2.1) should not. This prediction is indeed borne out, as shown in (77).

(77) a.   Luis compró   un libro, y   María una revista.
            Luis bought.3.SG a   book and María a   magazine

      a´.   Luis compró   un libro, y   creo   que María una revista.
            Luis bought.3.SG a   book and I.think that María a   magazine

      b.   Compraron Luis un libro y   María una revista.
            bought.3.PL Luis a   book and María a   magazine

      b´.   *Compraron Luis un libro y   yo creo que María una revista.
            bought.3.PL Luis a   book and I   think that María a   magazine

The reason why this kind of asymmetry happens is that cumulative agreement is compatible only with low-coordination and the embedded gaps are crucially incompatible with low-coordination, so that it is naturally predicted that the example in (77b´) cannot be acceptable. In contrast, it is obvious that the sentence in (77a´) is perfectly possible, as it is the result of high-coordination with non-cumulative agreement.

For Spanish, as mentioned before (cf. § 1.1.3.1), it is worth mentioning that Type-II gapping with high-coordination, which was represented by a comma (cf. § 3.2.1), can also allow non-canonical word orders such as 'VSO & SO' (78a) and 'VOS & OS' (78b).

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[133] This kind of approaching the syntactic phenomenon is not unusual in the literature. For example, Valmala (2015a,b) pursues this kind of hypothesis and convincingly argues that English and Catalan RNR divides into two different types, depending on the focal nature of the pivot, i.e. the RNRed material, which is separated by a prosodic pause from the preceding sentence.

(78) a.   Comió   Juan una manzana, y   Luis una pera.

           ate.3.SG Juan an apple   and Luis a   pear

           'John ate an apple, and Luis a pear'

     b.   Comió una manzana Juan, y una pera Luis.

This result is of course not surprising because Spanish allows both VSO and VOS sentences.

Gallego (2013), for example, argues that Spanish VSO sentences are derived as (79) where the verb undergoes movement to Tº and the subject stays within the vP.

(79)   [TP [T' *comió*$_i$ [vP *Juan* [v' t_i [VP t_i *una manzana*]]]]][134]

Assuming this analysis, I suggest that the sentence in (78a) involves the derivation shown in (80) where each conjunct involves verb movement to Tº, yielding VSO, and the verbal complex of the second conjunct is deleted at PF.

(80)
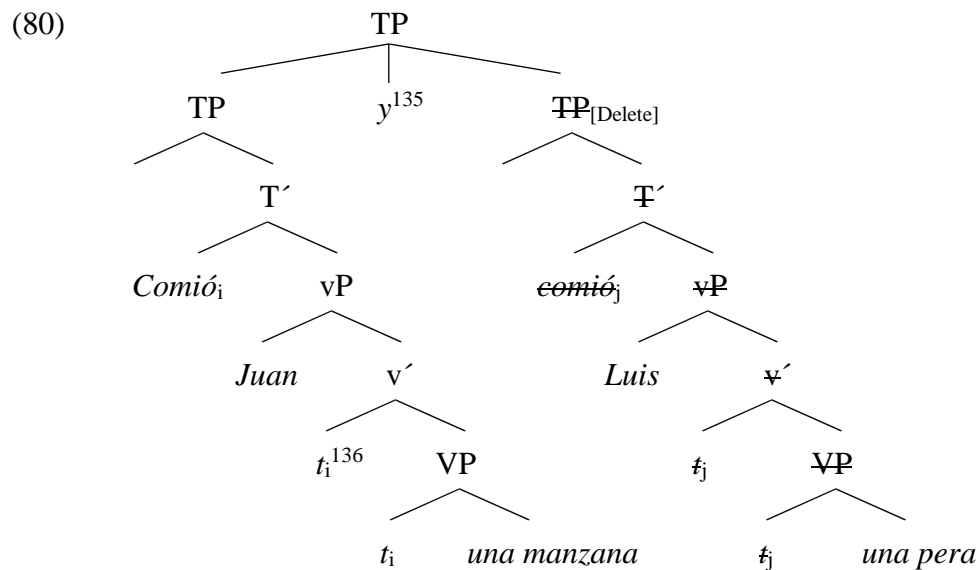
If Gallego's analysis is correct, VSO of the first conjunct in (78a) should be the result of verb movement, and by analogy, the second conjunct would involve the same derivation in

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[134] For the subject position of Spanish VSO, Gallego assumes that the subject does not raise to [Spec,TP] (*contra* Ordóñez 2007). Thus, the verb will move up to Tº rather than AgrSº above the TP. This issue is not much relevant for my discussion of the text because either way, the gapping sentence in (78a) involves large-conjuncts.

[135] I am abstracting away the BP because it is not crucial for the discussion of the text.

[136] In this dissertation, I will assume without further discussion 'V-to-v' movement on its way to Tº.

which the verb is moved to T°, passing through v°, and then the whole verbal complex 'V-v-T' is elided at PF, as represented in (80).

As for the example in (78b) where the first conjunct involves VOS, the previous literature has proposed a good number of different analyses of Spanish VOS sentences.[137] For the purpose of exploring the derivation of Type-II gapping with 'VOS & OS', it is sufficient for us to consider the following two types of analysis; namely P(rosodic)-movement (Zubizarreta 1998) and object scrambling (Ordóñez 1998; Gallego 2007, 2013).

Zubizarreta (1998), on the one hand, proposes that in Spanish, (all) movement of constituents is basically triggered by prosodic requirements. Specifically, she argues that such requirement is that a focused constituent must be the lowest in the syntactic structure, so that it can receive accent according to the Nuclear Stress Rule (NSR). For instance, the sentence in (81b) is a possible answer to (81a), but (81c) is not felicitous to this context.

(81) a.   ¿Quién comió una manzana?
           'Who ate an apple?'
      b.   Comió una manzana Juan.
      c.   # Juan comió una manzana.

To derive the VOS order shown in (81b), the author suggests that the VP undergoes fronting to outer specifier of vP, passing the 'in-situ' subject (82).

(82)   [$_{vP}$ [$_{VP}$ *comió una manzana*]$_i$ [$_{vP}$ *Juan* [$_{v'}$ t_i]]]^{138}

---

[137] In the literature, there have been at least the following approaches to VOS sentences in Spanish.

(i)   a.   Right adjunction of the subject to some projection (Torrego 1984)
      b.   Rightward movement of the subject at PF (Parafita Couto 2005)
      c.   *P*(rosodic)-movement of presupposed phrases past the in-situ subject (Zubizarreta 1998)
      d.   Pronunciation of the low copy of the subject to meet Sentence Stress Assignment conditions, under the assumption that all arguments and the verb vacate *v*P/VP for Case checking purposes (Ortega-Santos 2006)
      e.   Object scrambling past the in-situ subject (Ordóñez 1998; Gallego 2007, 2013)
      f.   Movement of the subject to [Spec,FocP] at the VP-periphery, with movement of the presupposed material to a clause internal [Spec,TopP] higher than the FocP (Belletti 1999; Etxepare and Uribe-Etxebarria 2008)
      g.   Remnant movement (Ordóñez 2000; Etxepare and Uribe-Etxebarria 2008)

[138] See Lopez (2009) for discussions on the landing site of VP-fronting in Spanish VOS sentences. In any case, this matter does not affect the derivation shown above because VOS is basically derived by VP-fronting. For this derivation to properly work, of course, one must assume verb movement from the dislocated VP (or T° will be lowering to V°).

In this way, the subject will be situated at the lowest position of the syntactic structure and thus can receive accent by NSR.[139]

On the other hand, Ordóñez (1998) proposes that Spanish VOS is the result of object scrambling over the in-situ subject (in [Spec,vP]) followed by verb movement to Tº (83).

(83)   [TP [T′ *comió*$_i$ [XP *una manzana*$_j$ [vP *Juan* [VP t_i t_j]]]]]

Gallego (2007, 2013) argues that in Spanish VOS sentences, object scrambling is akin to object shift in that it triggers verb movement. It is well-known that Holmberg's (1986) generalization states that once object shift happens, there must be a subsequent verb movement; otherwise, object shift is banned and the resulting sentence is ungrammatical (see Holmberg and Platzack 1995; Holmberg 1999; Vikner 2001, 2006, a.o.). The same is true for Spanish VOS sentences, as claimed by Gallego (2013), where he gives examples like (84) to show that what licenses object shift is verb movement to a position over the shifted object.

(84)   a.   *Ayer   estaba [vP un libro$_i$ [Juan [XP leyendo$_V$]]].
               yesterday was   a book Juan   reading
               'Juan was reading a book yesterday'

         b.   Ayer   estaba [[XP leyendo$_V$]$_j$ [vP un libro$_i$ [Juan t_j]]].
               yesterday was   reading   a book Juan
               'Juan was reading a book yesterday'

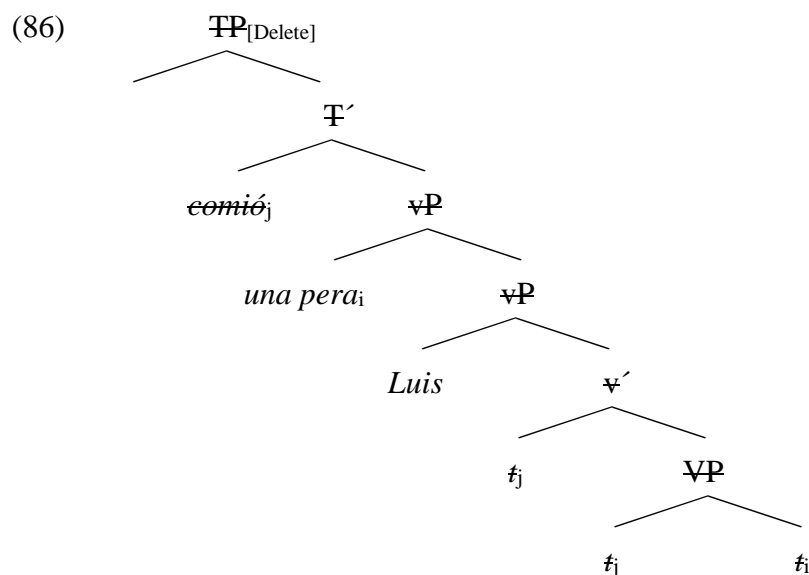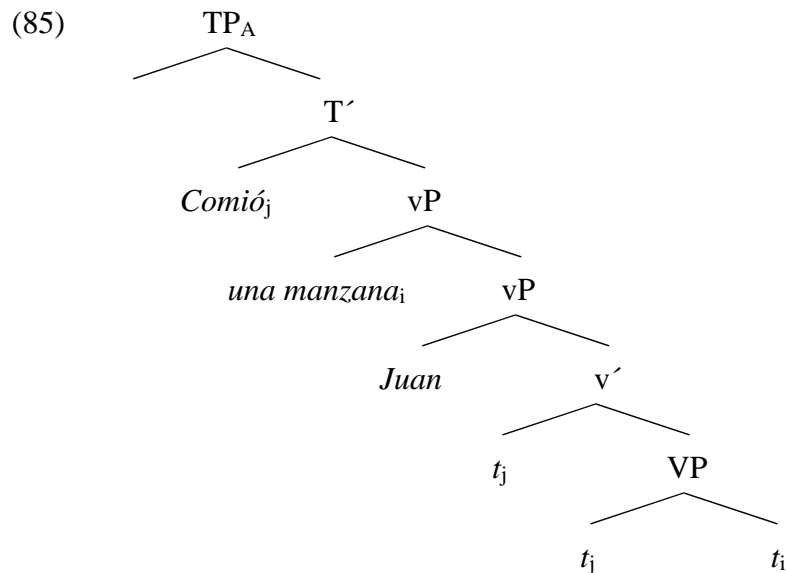   (Gallego 2013: 426, (35))

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[139] In fact, VOS is not restricted to the Question-and-Answer pairs. For instance, sentences like (i) with VOS are also perfectly possible in Spanish.

(i)   a.   Si pilota el avión tu   hermano, yo no   vuelo (porque (él) pisa   mucho)
               if pilots the plane your brother   I NEG fly   (because he speeds up too much)
               'If your brother pilots the plane, I will not fly (because he speeds up too much)'
         b.   Si conduce el coche Juan, yo no   iré   (porque (él) pisa   mucho)
               if drives   the car   John I NEG will.go (because he speeds up too much)
               'If John drives the car, I will not go (because he speeds up too much)'

Vidal Valmala (p.c) points out to me that in this kind of conditionals, there is no (much) difference between VOS and other orders, as shown in (ii).

(ii)   a.   Si pilota tu hermano el avión, yo no vuelo (porque (él) pisa mucho)
         b.   Si tu hermano pilota el avión, yo no vuelo (porque (él) pisa mucho).

If we follow Ordóñez's (or Gallego's) analysis, then the VOS order of the first conjunct in (78b) will be derived by verb movement to Tº fed by prior object shift (85), and the same principle applies to derive the word order of the second conjunct where gapping happens (86).

(85)

TP_A
  T´
    Comió_j
    vP
      una manzana_i
      vP
        Juan
        v´
          t_j
          VP
            t_j   t_i

(86)

~~TP~~[Delete]
  ~~T´~~
    ~~comió_j~~
    ~~vP~~
      una pera_i
      ~~vP~~
        Luis
        ~~v´~~
          ~~t_j~~
          ~~VP~~
            ~~t_j~~   ~~t_i~~

Remember that in § 3.2.2 I have proposed that Type-II gapping involve high-coordination and thereby the gap of the second conjunct is the result of eliding the verbal complex at PF, as represented in (86).

In this configuration, one may wonder how the in-situ subject is assigned NOM Case from Tº since there is an intervening element, namely the shifted (or scrambled) object. Gallego provides a solution to this matter in terms of equidistance (of Chomsky 1995),

stating that "… nominative can be assigned if and only if verb movement renders object and subject equally close (i.e., equidistant) to T° (Gallego 2013: 424)". In this way, we can circumvent the so-called "Defective Intervention" (in the sense of Chomsky 2000, 2001) for Spanish VOS sentences. Alternatively, if we follow that the object is assigned (ACC) Case from v° prior to undergoing object shift, then it is not an intervener anymore between T° and the subject. Either way, NOM Case assignment is not problematic for the analysis of VOS in terms of object shift plus verb movement.

In analyzing VOS sentences, the derivation option with VP-fronting is not available in languages like Galician, European Portuguese, and Spanish, as argued by Gallego. This author provides examples like (87), which demonstrate that only in the derivation with object shift (plus verb movement), the object c-commands the subject and can therefore bind it.

(87) a.   Ayer   visitó   a cada$_i$ chico su$_i$ mentor.[140]
         yesterday visited to each boy   his mentor
         'His mentor visited each boy yesterday'

     b.   Recogió cada$_i$ coche su$_i$ propietario.
         picked up each car   his owner
         'Its owner picked each car up'

     c.   No regañó   a ningún niño$_i$ su$_i$ madre.
         not scolded to any   child his mother
         'His mother didn´t scold any child'

                                                      (Gallego: 2007: 244-245)

Condition C effects in (88) also point to the same direction; i.e. the shifted object c-commands the subject, which cannot be possible under the VP-fronting analysis of Spanish VOS sentences.

(88) a.   *Lo$_i$ vieron   (a él$_i$) los amigos de Pablo$_i$.[141]
          CL.ACC they.saw (to him) the friends of Pablo

---

[140] There is a speaker variation on the judgement. Some of my informants do not accept the binding relation in these examples, whereas others coincide the judgement with Gallego. Thus, the argumentation of the text is based on the latter variant of Spanish, and I will not discuss about such variation among speakers.
[141] The same result obtains in the *leísta* Spanish.

'Pablo's friends saw him'

b.　　*Lo_i　　llamaron　(a él_i)　los　hermanos de Juan_i.

　　　　CL.ACC　they.called (to him) the friends　　of Juan

　　　　'Juan's brothers called him'

<div align="right">(Gallego 2013: 416, (15))</div>

Based on this robust evidence, in this section I assume Ordóñez's (or Gallego's) analysis of Spanish VOS sentences. If we follow this analysis, then, examples like (83b) would have the derivation shown in (86) rather than that of (82).

Given this situation, we are now in a position to consider whether Spanish can also allow Type-I gapping with the 'VOS & OS' order.[142]

As can be seen in (89), this kind of gapping is not acceptable for native speakers who I have consulted, somewhat unexpectedly considering the same order involved therein.[143]
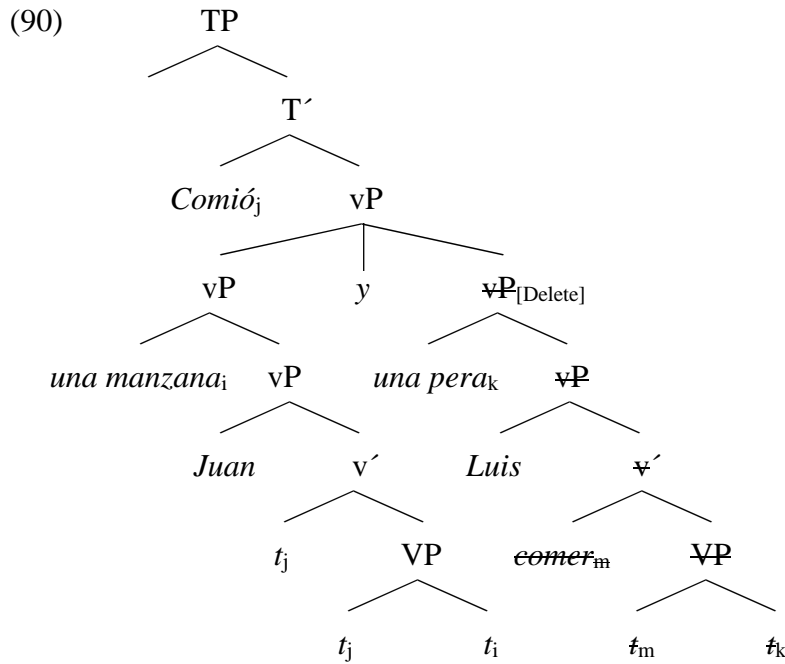
(89)　a.　　??Comieron una manzana Juan y　una pera Luis.

　　　　　ate.3.PL　an apple　　Juan and a　pear Luis

　　　b.　　*Comió　una manzana Juan y　una pera Luis.

　　　　　ate.3.SG　an apple　　Juan and a　pear Luis

Thus, the question that needs to be answered is why the examples in (89) are not acceptable, in contrast to the one in (78b). In what follows I will attempt to explain the unacceptability of (89). Let us consider first the ungrammaticality of (89b).

I suggest that this kind of ungrammaticality arises due to the syntactic violation in the course of the derivation. Recall first that in § 3.2.1, I have proposed that Type-I gapping with non-cumulative agreement involves PF-deletion, as evidenced by the possibility of pronouncing the lexical verb of the second conjunct. If this analysis is on the right track, then the reason for the ungrammaticality of (89b) is that the second conjunct of the sentence involves object shift, but not verb movement, as shown in (90).

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[142] In § 3.2.1, we have already observed that Type-I gapping with 'VSO & SO' is perfectly possible in Spanish, so that I will not discuss this type in the text.

[143] According to my informants, the sentence in (89b) is worse than the one in (89a). Soon after, we will see why this is so.

(90)

```
                        TP
                        |
                        T´
                    ___/ \___
                Comióⱼ        vP
                          ___/ | \___
                        vP     y    vP[Delete]
                    ___/ \___      ___/ \___
            una manzanaᵢ  vP   una peraₖ   vP
                       ___/ \___        ___/ \___
                    Juan      v´     Luis      v´
                          ___/ \___        ___/ \___
                        tⱼ      VP     comerₘ      VP
                            ___/ \___          ___/ \___
                           tⱼ      tᵢ         tₘ      tₖ
```

As mentioned earlier (cf. (83)), both object shift and verb movement are crucial parts of the derivation of the Spanish VOS sentences under Ordóñez's (or Gallego's) analysis. Therefore, we can reasonably rule out the sentence in (89b) by the lack of verb movement (to T°) in context of object shift: according to Holmberg's generalization, object shift by itself cannot be allowed if there is no subsequent verb movement.

One prediction of this analysis is that if there is no object shift involved in the second conjunct, the resulting output should be acceptable. This prediction is borne out, as shown in (91) where 'VOS & SO' is allowed within the conditional clause.[144]

(91) Si trae   el vodka Luis y   su hermana el pacharán,
      if bring.3.SG the vodka Luis and his sister   the sloe-flavored liqueur
      sería   guay para la   fiesta.
      it.would be cool for   the party
   'If Luis brings vodka and his sister sloe-flavored liqueur, it would be cool for the
       party'

The same is true in non-conditional contexts, as can be seen in (92).

---

[144] I thank Vidal Valmala who brings my attention to this prediction from the analysis shown in (90). Other native speakers who I have consulted confirm me that (91) is acceptable.

(92) Es que no   puede   traer marisco Luis y   su hermana caviar,
   is that NEG can.3.SG bring seafood Luis and his sister   caviar
   porque   son carísimos   en esta temporada.
   because are too.expensive in this period
   'The thing is that Luis can't bring seafood and his sister caviar because they are too
     Expensive in this period of time'

Let us consider next the sentence in (89a), which my informants do not consider as bad as (89b).

Adopting Ordóñez's (or Gallego's) analysis of VOS sentences in Spanish, the sentence in (89a) would involve the derivation shown in (93), where each conjunct involves object shift, and the verb undergoes ATB-movement to Tº due to the cumulative agreement (cf. § 3.2.1). Since in principle there is nothing wrong with this derivation, the obvious question is why the resulting output is unacceptable.

(93)
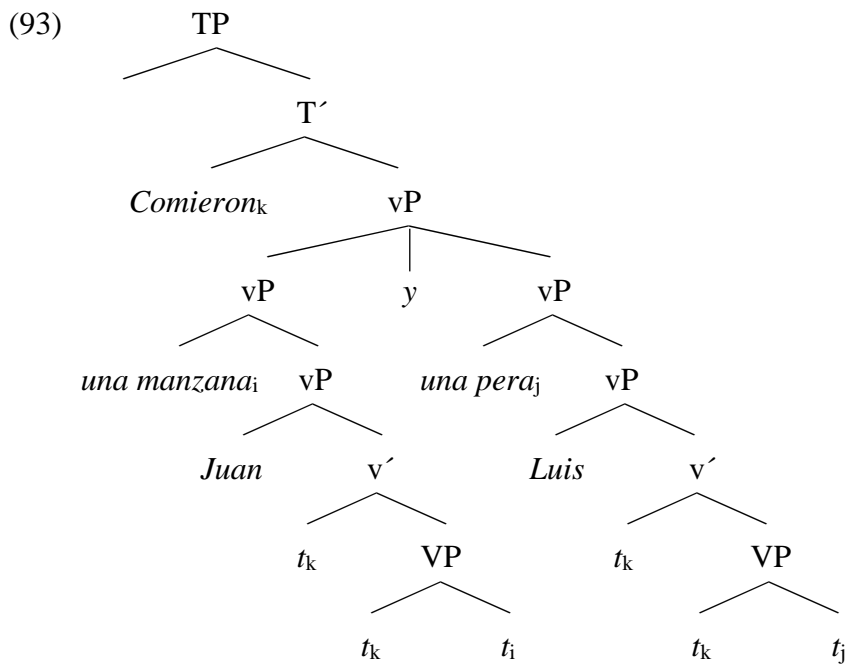
The idea I have in mind is that this kind of unacceptability has something to do with processing. Since in (89a) both the subjects and the objects are 3rd person, some kind of confusion arises when parsing the sentence with plural agreement on the verb. If the source of the problem in (89a) is related with sentence parsing, the prediction is that similar sentences should be good if we eliminate somehow such kind of parsing problem. This prediction is indeed borne out, as shown in (94) where we change the subject of the first

conjunct to either 1st or 2nd person, so that we can avoid the confusion with other materials in 3^{ed} person.

(94) a.   Trajimos   vodka yo y   Red Bull mi hermana.

           brought.1.PL vodka I   and Red Bull my sister

      b.   Trajisteis   vodka tú   y   Red Bull tu   hermana.

           brought.2.PL vodka you and Red Bull your sister

Notice that in the case of (89b) where the problem was the impossibility of object shift in the absence of the subsequent verb movement, changing the subject of the first conjunct makes no difference in acceptability, as shown in (95).

(95) *Comí   una manzana yo y   una pera mi hermano.

       ate.1.SG an apple   I and a   pear my brother

Although it has not (often) been mentioned in the literature, gapping in Spanish can interact with non-canonical syntactic phenomena such as Clitic-Left Dislocation (CLLD) and topicalization, so that we have sentences like (96) where the 'OVS & OS' pattern is found in gapping.[145]

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[145] In this dissertation, I assume without further discussion the movement analysis of CLLD (*contra* Cinque 1990), which has been supported by reconstruction effects (i), among other things. As shown in (ia), binding relation between the pronominal *su* 'his' and the quantifier *cada autor* 'each author' can be captured only if the CLLDed pronominal reconstructs at LF into its original position below the quantifier: Condition A. Similarly, in (ib) there is no Condition B violation because *a sí misma* 'ACC herself' was originally generated below the reflexive pronoun *se*, and then has moved to its surface position. Finally, the example in (ic) shows that it violates Condition C, which is explained only if the DP containing R-expression was initially generated below the coindexed *pro*.

(i) a.   A su$_i$ editor creo   que cada autor$_i$ le   envió un manuscrito.
           to his$_i$ editor, I.think that each author$_i$ CL.3.SG sent   a   manuscript
           'To his$_i$ editor, I think that each author$_i$ sent a manuscript'
     b.   A sí misma$_i$, yo creo que no   se$_i$ aprecia   mucho.
           ACC herself$_i$, I   think that NEG CL.REFL appreciate much
           'To herself$_i$, I think that she$_i$ does not appreciate much'
     c.   [Las mentiras de María$_i$] *pro$_i$* las   dijo   convencida.
           the lies   of Mary   *pro* CL.ACC she.said convinced
           'Mary's lies, she said convinced'

                                                              (Valmala 2011)

All these examples mean that the CLLDed material has undergone movement in overt syntax; if it were base-generated and thus could not reconstruct, binding relations are totally unexpected.
        Following Contreras (1976) and Rivero (1978, 1980), a.o., I will also assume the movement approach to topicalization. There is good reason to believe that this approach is on the right track. For example, as

(96)   a.   El dinero lo   heredó   Luis, y   las acciones ___ su hermano.

           the money CL.ACC inherited Luis and the stocks   his brother

           'The money, Luis inherited, and the stocks his brother ~~inherited~~'

       b.   Dinero heredó   Luis, y   acciones ___ su hermano.

           money inherited Luis and stocks   his brother

           'The money, Luis inherited, and the stocks his brother ~~inherited~~'

The same is true for the 'OSV & OS' pattern, which is also compatible with both CLLD (97a) and topicalization (97b), but with the condition that the second dislocated element of each conjunct must be focalized, as represented by capital letters.

(97)   a.   El dinero, LUIS lo   heredó, y   las acciones, SU HERMANO ___.[146]

           the money LUIS CL.ACC inherited and the stocks   HIS BROTHER

           'The money, Luis inherited, and the stocks his brother ~~inherited~~'

       b.   Dinero LUIS heredó, y   acciones SU HERMANO ___.

           money LUIS inherited and stocks   HIS BROTHER

           'The money, Luis inherited, and the stocks his brother ~~inherited~~'

I argue that all these examples of gapping cannot involve low-coordination precisely due to the presence of the dislocated materials involved in both conjuncts. That is, in essence both CLLD and topicalization are syntactic operations closely related to the left-periphery

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noted by Rivero (1980), topicalization in Spanish is sensitive to the Complex NP-Constraint (CNPC), as convincingly shown by the contrast between (iia) and (iib).

(ii)   a.   Dinero$_i$, acepto que pretendan   que tienen ___$_i$.
           money   I.accept that they.pretend that they.have
           'Money, I accept that they should pretend that they have'

       b.   *Dinero$_i$, acepto   la pretensión de que tienen ___$_i$.
           money I.accept the pretention of that they.have
           'Money, I accept the pretension that they have'
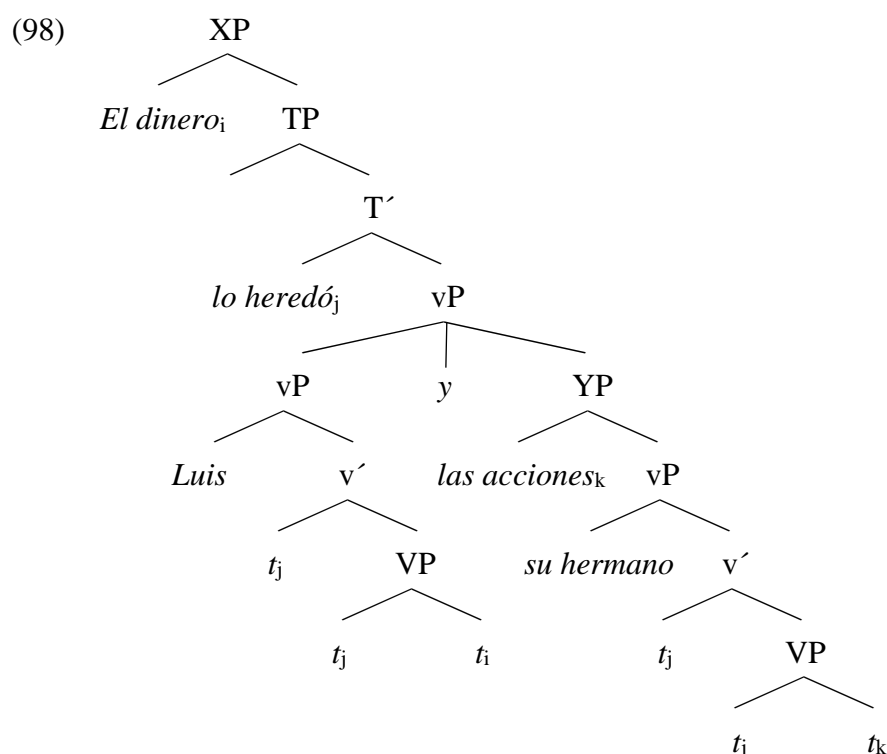
                                                                    (Rivero 1980: 365, (10))

That is, if no movement were involved in (iib), the sentence should be acceptable, contrary to fact.

[146] As claimed by Solà (1992: 268), the prosodic pause right after the CLLDed material is not necessary in both Catalan and Spanish. This author states that "any CLLDed element can be pronounced without a special pause or phonological clue possibly differentiating it from what would be true non-dislocated subject". However, if the subject appears in preverbal position, it seems that there must be a prosodic break between the CLLDed material and the preverbal subject. According to my informants, examples like (97a) require a prosodic pause between the two conjuncts.

(Rizzi 1997, 2001; Benincà and Poletto 2001; Lopez 2003) (or TP-adjoined positions, as in Rivero 1980).[147]

Proponents of low-coordination for gapping might want to deal with data like (96) and (97) by claiming that they involve low-coordination with movement of the CLLDed element to the left-peripery in the first conjunct and the corresponding element of the second conjunct to a low-peripheral position within the vP. The structure in (98) illustrates the representation of (96a) under this kind of analysis.[148]

(98)

```
                        XP
                       /  \
                El dineroᵢ   TP
                            /  \
                           T´
                          /  \
                  lo heredóⱼ   vP
                             / | \
                           vP  y  YP
                          /  \    /  \
                       Luis  v´  las accionesₖ  vP
                            /  \              /  \
                           tⱼ   VP      su hermano  v´
                               /  \              /  \
                              tⱼ   tᵢ           tⱼ   VP
                                                    /  \
                                                   tⱼ   tₖ
```

However, I will show that this cannot be the case for the following reason.

If low-coordination were involved in both (96) and (97), movement of the CLLDed (or topicalized) element in the first conjunct would violate the CSC. This is because neither CLLD nor topicalization is A-movement and therefore cannot be exempt from being constrained by the CSC. In addition, the low-coordination analysis must claim that the dislocated element in the second conjunct undergoes movement to the low-periphery within

---

[147] Zubizarreta (1998: 100) suggests that CLLDed constituents may occupy [Spec,IP/TP], which are licensed via Spec-Head Agreement. This perspective is of course compatible with my claim in the sense that CLLD is not associated with projections smaller than the TP.

[148] I represent here ATB-movement of 'V-v' to T° instead of VP-movement to [Spec,PredP]. This is because it is difficult to imagine that Spanish gapping would have the latter derivation, considering evidence for verb movement to T° in this language. In any case, my argumentation of the text does not hinge on the type of movement involved in low-coordination.

the vP. But CLLD crucially involves movement to the high-periphery; i.e. if it were moved to the low-periphery, sentences like (99) should be grammatical, contrary to fact.

(99) *[$_{TP/XP}$ *Tu hermano*$_i$ [$_{T'}$ *lo compró*$_j$ [$_{YP}$ *el libro*$_k$ [$_{vP}$ {t_i/*pro*$_i$} [$_{v'}$ t_j [$_{VP}$ t_j t_k]]]]] *ayer*].[149]
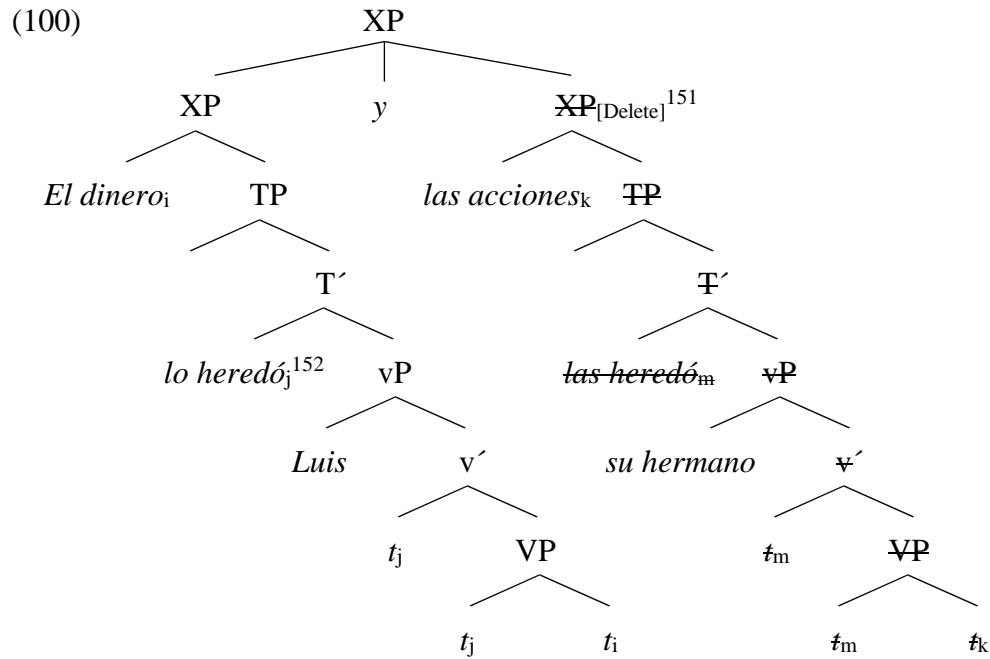
The same can be said for the topicalization involved in (97b).[150] Therefore, examples like (96) and (97) must involve high-coordination.

Given the above considerations on Spanish CLLD, I propose that the sentence in (96a) involves the derivation shown in (100) where CLLD takes place prior to PF-deletion.

---

[149] It is immaterial for my claim whether the subject is moved or base-generated. The representation shown in (104) might be the potential case of Clitic-Right Dislocation (CLRD) widely attested in languages like Catalan and Italian. However, there is no prosodic break between the supposed RDed material and the rest of the sentence. In addition, in Spanish, such kind of CLRD is not common as those languages mentioned above.
[150] As claimed by Valmala (2016), topicalization to the low-periphery wrongly predicts that sentences like (i) should be grammatical in English, contrary to fact.

(i)   a.   *[$_{TP}$ *John*$_i$ [$_{T'}$ *will* [$_{XP}$ *to Bill*$_j$ [$_{vP}$ t_i [$_{v'}$ *give*$_k$ [$_{VP}$ t_k *the book* t_j]]]]]]
       b.   *[$_{TP}$ *John*$_i$ [$_{T'}$ [$_{XP}$ *on the table*$_j$ [$_{vP}$ t_i [$_{v'}$ *put*$_k$ [$_{VP}$ t_k *the book* t_j]]]]]]

Recall that movement to the low-periphery is parasitic upon ellipsis and unattested in non-elliptical contexts (see a.o. Kubota and Levine 2016 for robust objection to this kind of movement in English gapping). Thus, such movement is stipulative by nature, unless we have a real motivation for that.

(100)

XP

XP y ~~XP~~[Delete][151]

El dinero$_i$ TP *las acciones*$_k$ ~~TP~~

T´ ~~T´~~

lo heredó$_j$[152] vP ~~*las heredó*~~$_m$ ~~vP~~

Luis v´ *su hermano* ~~v´~~

t_j VP ~~t~~$_m$ ~~VP~~
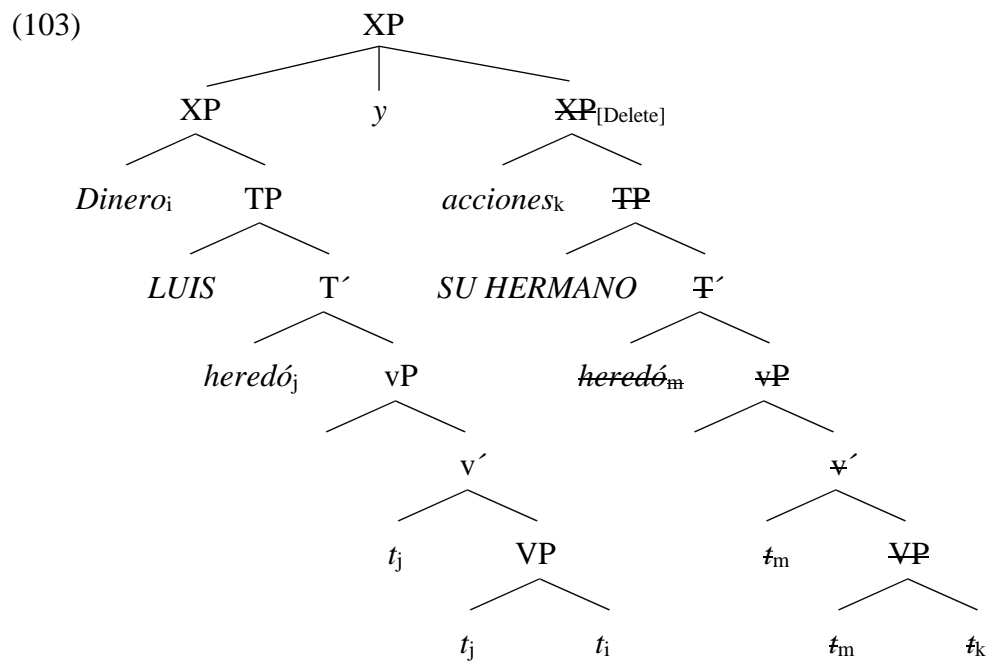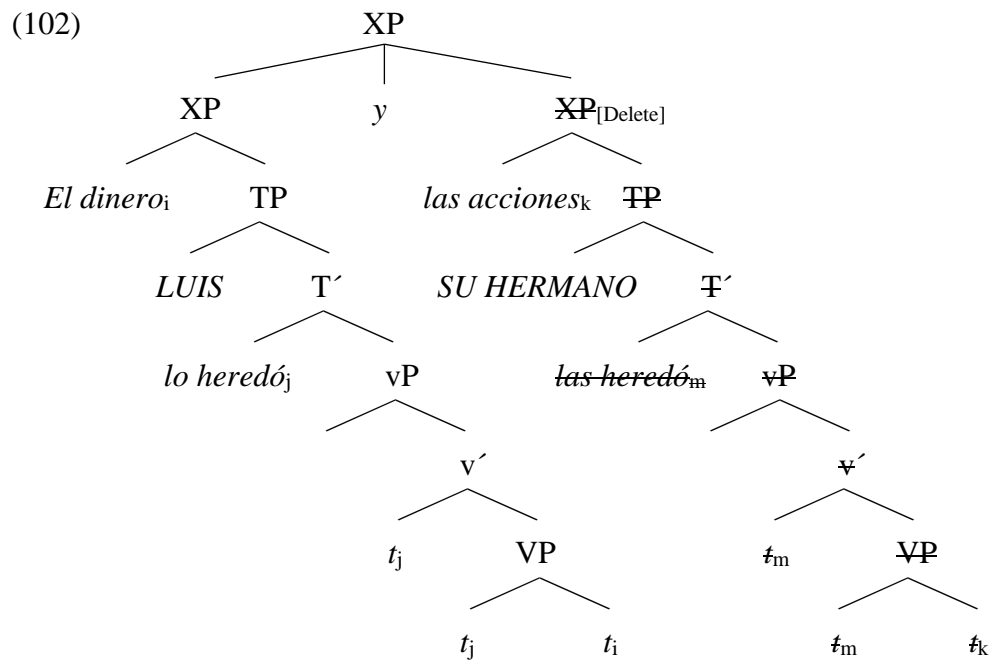
t_j t_i ~~t~~$_m$ ~~t~~$_k$

Similarly, the sentence in (96b) has the derivation shown in (101) where the object is topicalized in each conjunct and the verbal complex of the second conjunct is deleted at PF.

(101)

XP

XP y ~~XP~~[Delete]

Dinero$_i$ TP *acciones*$_k$ ~~TP~~

T´ ~~T´~~

heredó$_j$ vP ~~*heredó*~~$_m$ ~~vP~~

Luis v´ *su hermano* ~~v´~~

t_j VP ~~t~~$_m$ ~~VP~~

t_j t_i ~~t~~$_m$ ~~t~~$_k$
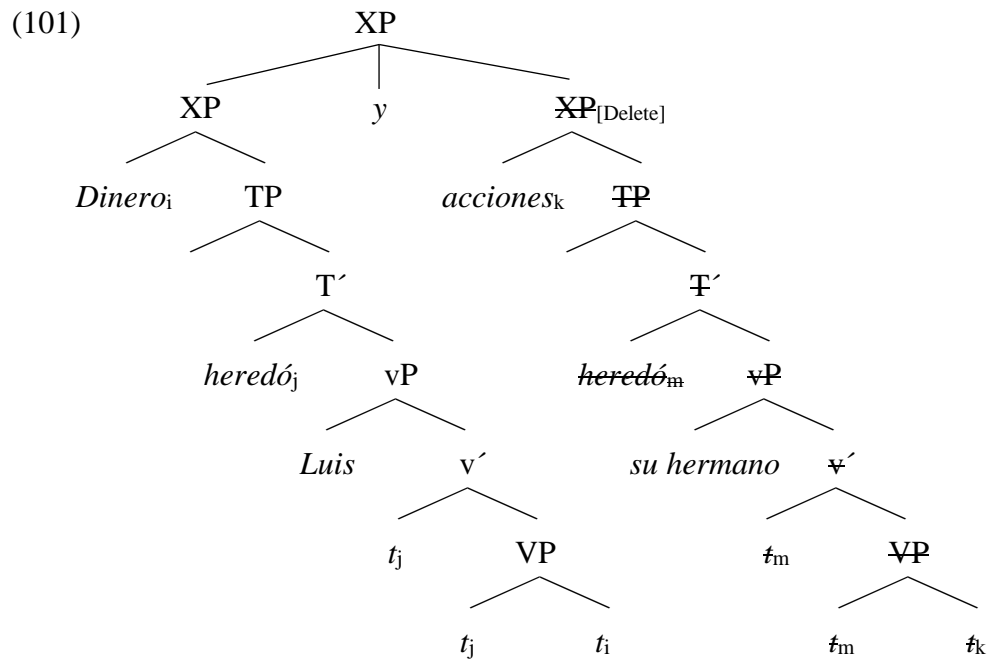
[151] This is not the deletion of a phrase above the TP. Following Gallego (2015), I assume that topicalization is an adjunction to the TP (and not movement to the specifier position of a XP). Thus, XP here is actually the upper TP. As mentioned before, I follow that gapping targets the maximal projection of a given coordination, so that in high-coordination (i.e. TP-coordination), the TP is the maximal projection to be elided at PF.

[152] As for clitic doubling, I have already assumed the "Big DP" hypothesis, which states that in syntax, the clitic raises to a DP-external functional head near to the verb located in T°. In (100), thus, although I have represented clitic doubling as if it were placed in T°, we can easily understand that the doubled object is in any case located above the TP.

By extension, examples in (97a-b) can be analyzed in the same way, as illustrated in (102) and (103), respectively, where the only difference between the two is the subject position.[153]

(102)

```
                              XP
              ┌───────────────┼──────────────────┐
             XP               y              X̶P̶[Delete]
        ┌─────┴─────┐                    ┌────────┴────────┐
   El dinero_i      TP            las acciones_k          T̶P̶
              ┌──────┴──────┐                      ┌────────┴────────┐
            LUIS            T´               SU HERMANO            T̶´
                      ┌──────┴──────┐                      ┌────────┴────────┐
                  lo heredó_j       vP              l̶a̶s̶ ̶h̶e̶r̶e̶d̶ó̶_m         v̶P̶
                              ┌──────┴──────┐                      ┌────────┴────────┐
                                           v´                                      v̶´
                                    ┌───────┴───────┐                      ┌────────┴────────┐
                                   t_j              VP                    t̶_m               V̶P̶
                                             ┌───────┴───────┐                      ┌────────┴────────┐
                                            t_j             t_i                   t̶_m               t̶_k
```

(103)

```
                              XP
              ┌───────────────┼──────────────────┐
             XP               y              X̶P̶[Delete]
        ┌─────┴─────┐                    ┌────────┴────────┐
   Dinero_i         TP              acciones_k            T̶P̶
              ┌──────┴──────┐                      ┌────────┴────────┐
            LUIS            T´               SU HERMANO            T̶´
                      ┌──────┴──────┐                      ┌────────┴────────┐
                  heredó_j          vP                 h̶e̶r̶e̶d̶ó̶_m           v̶P̶
                              ┌──────┴──────┐                      ┌────────┴────────┐
                                           v´                                      v̶´
                                    ┌───────┴───────┐                      ┌────────┴────────┐
                                   t_j              VP                    t̶_m               V̶P̶
                                             ┌───────┴───────┐                      ┌────────┴────────┐
                                            t_j             t_i                   t̶_m               t̶_k
```

Of course, this is not the end of the story for Spanish gapping with CLLD (or topicalization).

---

[153] For presentational purposes, I assume that the focalized subjects occupy the specifier of TP (Zubizarreta 1998); whether the preverbal focalized subject is moved or base-generated is not crucial for my claim in the text.

There are more complex cases where the subject is part of the gap. This is typically observed in contexts where the sentences involve complex gaps such as (104) in which, depending on the subject positions in the first conjunct, we have both discontinuous (104a) and continuous gaps (104b-c).[154]

(104) a.　Mi hermana los libros los　　compra　en eBay,

　　　　my sister　　the　books CL.ACC buys.3.SG in eBay

　　　　y　___ las revistas ___ en Amazon.

　　　　and　　the magazines　in Amazon

　　　　'The books, my sister buys in eBay, and the disks ~~my sister buys~~ in Amazon'

　　b.　Los libros mi　hermana los　　compra　en eBay,

　　　　the　books my sister　　CL.ACC buys.3.SG in　eBay

　　　　y　las revistas ___ ___ en Amazon.

　　　　and the magazines　　in Amazon

　　　　'The books, my sister buys in eBay, and the disks ~~my sister buys~~ in Amazon'

　　c.　Los libros los　　compra　mi　hermana en eBay,

　　　　the　books CL.ACC buys.3.SG my sister　　in eBay

　　　　y　las revistas ___ ___ en Amazon.

　　　　and the magazines　　　in Amazon

　　　　'The books, my sister buys in eBay, and the disks ~~my sister buys~~ in Amazon'

Here again the manifestation of CLLD is a clear indication of high-coordination and thus objects strongly to the low-coordination analyses such as in Johnson (1996/2004), Coppock (2001), Citko (2012), and Toosarvandani (2015, 2016), etc.

---

[154] These examples are modeled by Valmala's (2016) original data given in (i).

(i)　Los libros los　　compré en London, y　los discos, en Paris.
　　the　books CL.ACC I.bought in London　and the disks　in　Paris
　　'The books, I bought in London, and the disks ~~I bought~~ in Paris'

This example is well-formed because the remnant condition is satisfied, as both conjuncts involve two contrastive materials. In (i), the presence of null subject in the first conjunct is not surprising because Spanish is one of the well-known Null Subject Languages (NSLs) (Jaeggli 1980; Taraldsen 1980; Chomsky 1981, 1982; Rizzi 1982, 1986; Jaeggli and Safir 1982; Bouchard 1984, to name a few), where the finite T° is sufficiently rich enough to be the licenser of *pro* in subject position (Rizzi 1986). Therefore, the absence of overt subject in the first conjunct of (i) is not problematic for the well-formedness of gapping.

Gapping of this sort is not specific to languages like Spanish. As can be seen in (105), English also allows gapping involving topicalization (Sag 1976/1979; Hankamer 1979; Sag *et al* 1985; Kubota and Levine 2016).[155]

(105) To Robin Chris gave the book, and to Leslie, ___ the magazine.

'To Robin Chris gave the book, and to Leslie ~~Chris gave~~ the magazine'

(Kubota and Levine 2016: 124, (32a))

This example also shows that any low-coordination analysis cannot be correct. Consider first the representation of (105). Under Johnson's (1996/2004) analysis (cf. § 2.2.2), for example, the sentence in (105) has the derivation shown in (106) where the VP containing traces of the remnants undergoes ATB-movement to [Spec,PredP], and the subject *Chris* shared by both conjuncts undergoes ATB-movement to [Spec,TP].[156]

---

[155] Examples like (105) should not be confused with the CR (Hudson 1973, 1976, 1982; Sag 1976/1979; Neijt 1979) in which both conjuncts share the same subject, but there is no parallelism at all between the non-shared materials in the two conjuncts, as shown in (i).

(i) John worked hard and was awarded the first prize at the end of the year.

(Hudson 1976: 543)

That is, the example in (105) is not a sort of CR but gapping with the parallel materials in both conjuncts. Note that I am not saying here that gapping and CR can be reduced to one single phenomenon. I follow Hudson (1976, 1982), a.o., in that gapping and CR share some properties, but this does not mean that they should be considered as a result of the same deletion mechanism.

[156] This is my representation based on Johnson's analysis. As mentioned before, he does not discuss complex gap involving the subject.

(106)

```
                    YP
                  /    \
          To Robin₁      TP
                       /    \
                 Chrisᵢ      T´
                            /   \
                         PredP
                        /      \
                     vPⱼ          Pred´
                   /    \        /     \
              tᵢ¹⁵⁷     VP    Pred      XP
                       /\             /  |  \
                      /  \          XP  and  XP
                     /____\        /  \     /  \
                   gave tᵢ t₂    tⱼ  the book₂  to Leslie₁  XP
                                                            /  \
                                                          tⱼ   the magazine₂
```
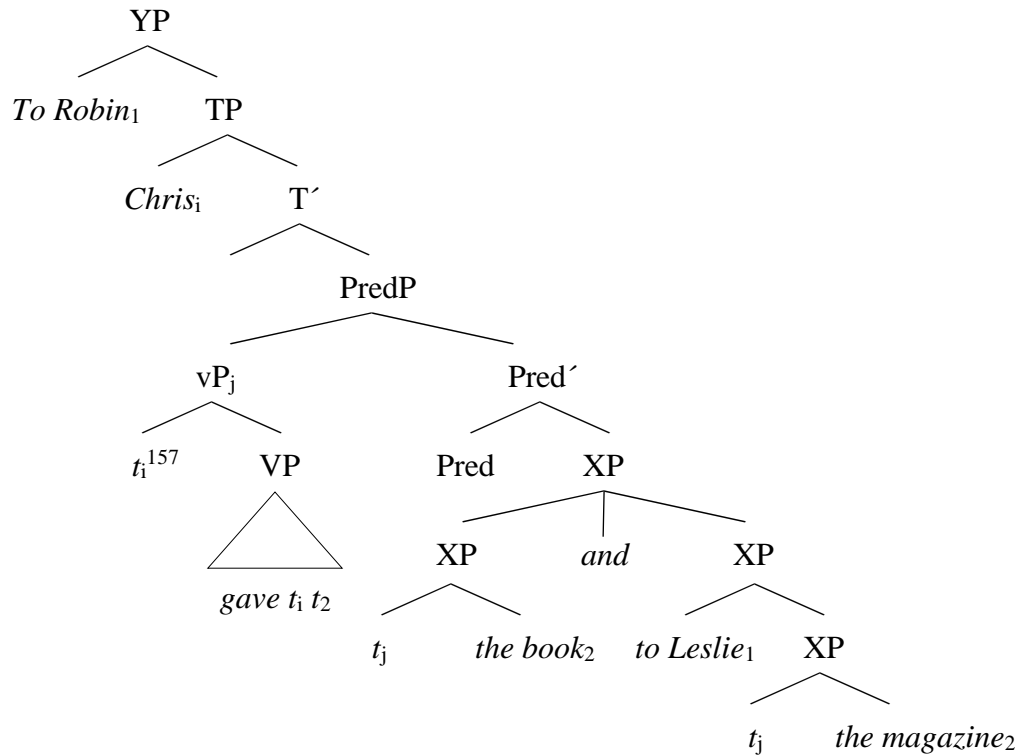
However, the problem is that topicalization of *to Robin* from the first conjunct clearly will violate the CSC because it is in every respect A'-movement and thus cannot be immune to the CSC. This is a serious problem for any low-coordination analysis, which cannot provide a solution for this problem, considering the surface position of the subject (i.e. [Spec,TP]) relative to the topicalized material in the first conjunct.

Furthermore, to cope with data like (104), 'Johnson-style' analysis must in some way state that the verbal complex containing ACC clitic undergoes ATB-movement. However, this cannot be the case due to the identity requirement; e.g., in (104a) [*los compra*] cannot be identical to [*las compra*] under any circumstance, as illustrated in (107).[158]

---

[157] Under Johnson's analysis, of course, this movement *per se* is not problematic since it is ATB-movement which does not violate the CSC. Here one might alternatively assume that subject movement starts from the displaced VP in [Spec,PredP] in a smuggling-fashion (Collins 2005). But this kind of stuff is not crucial for my argumentation of the text.

[158] Even if the whole vP (or VP) is assumed to undergo ATB-movement (*á la* Johnson 1996/2004), we would have the same problem; [vP/VP … *los compra* …] is not identical to [vP/VP … *las compra* …]. Notice that in our case, the identity problem is different from Johnson's (cf. § 2.2.2), where the problem was indices of the traces left behind by moved objects and he may assume that indices of traces could be ignored for the purpose of ATB-movement.

(107)

XP

Mi hermana_i   YP

    los libros_j   TP

        T′

           vP

        vP   y   YP

    t_i   v′   las revistas_m   vP

    los compra_k   VP   t_i   v′

      VP   PP   las compra_k   VP

    t_k   t_j en eBay   VP   PP

    ☹   t_k   t_m en Amazon
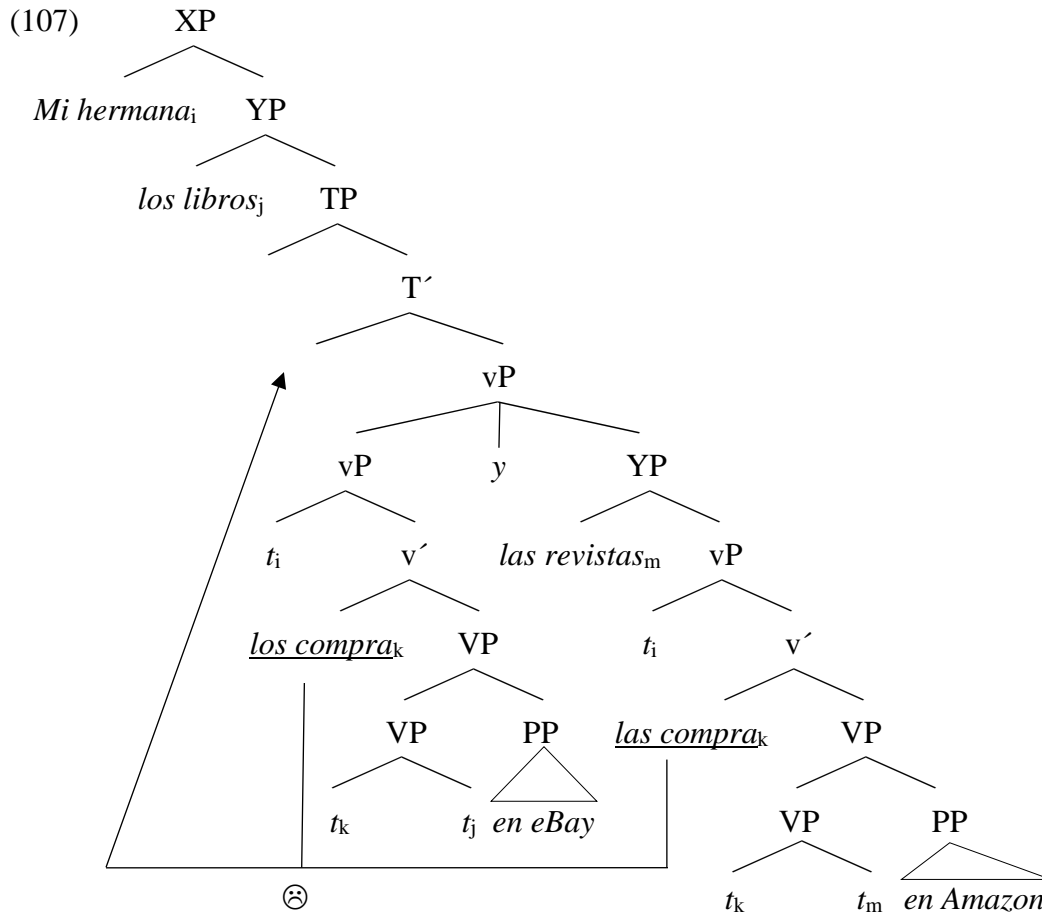
Regarding the identity condition on the application of ATB-movement, it is well-known that in languages like German, ATB-movement is restricted to the DPs bearing the same Case. For instance, as shown in (113), ATB-movement of *wh*-object is ungrammatical due to this restriction: because the verb *sehen* 'see' in the first conjunct assigns ACC Case, whereas the verb *helfen* 'help' in the second conjunct assigns DAT Case.

(108) a.   *[Welchen.ACC Jungen] hat Maria gesehen und geholfen?

          which.ACC   boy   has Mary seen   and helped

    b.   *[Welchem.DAT Jungen] hat Maria gesehen und geholfen?

          which.DAT   boy   has Mary seen   and helped

                                    (Blümel 2014: 29, (33))

Hartmann, Konietzko, and Salzmann (2016) have carried out experiments whose results show that Case mismatches in German ATB-topicalization such as (109) lead to a strong decrease in acceptability.

(109) Diese Komödiantin   hat der   H. __ besucht und den   P. __ amüsiert.

       this   comedianNOM/ACC has theNOM H. __ visited   and theACC P. __ amused.

       (Lit.) "This female comedian, Hans visited and amused Peter"

<div align="right">(Hartmann et al 2016: 21, (25A))</div>

These authors argue that mismatches in Case are generally not tolerated and ATB-movement in German is subject to a strict syntactic identity requirement; i.e. the gaps must match not only in morphological but also in abstract Case, contrary to the claims made by Dyla (1984), Franks (1995), and Citko (2005), where they propose that Case mismatches are tolerated as long as the filler bears a syncretic underspecified Case form which is compatible with the conflicting requirements of both verbs. If Hartmann *et al* are right in arguing that in the general cases, ATB-movement is constrained by a strict morphosyntactic identity between the elements to be moved, the same reasoning applies to my claim; i.e. in (107), [*los compra*] and [*las compra*] are not morphosyntactically identical for ATB-movement.[159] Therefore, we can conclude that ATB-movement will not be possible in (107) because the identity requirement of ACC clitic is not satisfied.

     To account for data like (104), those authors who propose the movement-plus-deletion analysis under high-coordination (e.g. Jayaseelan 1990; Gengel 2007, 2013) might claim that the discontinuity of the gap shown in (104a) is not problematic by saying that movement of the remnants creates a configuration in which the target of ellipsis always forms a constituent, as illustrated in (110).

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[159] One might suggest that this kind of ATB-movement is possible by assuming that what is undergoing ATB-movement is underspecified clitic and the lexical verb. However, if this were the case, it is not clear how such an underspecified clitic could agree with both the remnant *los libros* 'the books' and its correlate *las revistas* 'the magazines' at the same time.

(110)

```
                              TopP
                  ┌────────────┼────────────┐
               TopP₁           y          TopP
            ┌─────┴─────┐            ┌──────┴──────┐
      Mi hermanaᵢ     Top₂      las revistasᵢ    FocP
                 ┌─────┴─────┐         ┌──────┴──────┐
            los librosⱼ     TP     en Amazonⱼ       T̶P̶
                         ┌───┴───┐              ┌─────┴─────┐
                        T´                     T̶´
                   ┌─────┴─────┐          ┌──────┴──────┐
              los compraₖ    vP       l̶a̶s̶ ̶c̶o̶m̶p̶r̶a̶ₖ    v̶P̶
                          ┌──┴──┐              ┌─────┴─────┐
                         tᵢ    v´         m̶i̶ ̶h̶e̶r̶m̶a̶n̶a̶    v̶´
                            ┌──┴──┐              ┌─────┴─────┐
                           tₖ    VP            t̶ₖ          V̶P̶
                              ┌──┴──┐              ┌─────┴─────┐
                             VP    PP            V̶P̶          P̶P̶
                          ┌──┴──┐  /\          ┌──┴──┐        |
                         tₖ    tⱼ en eBay    t̶ₖ    t̶ᵢ      t̶ⱼ
```
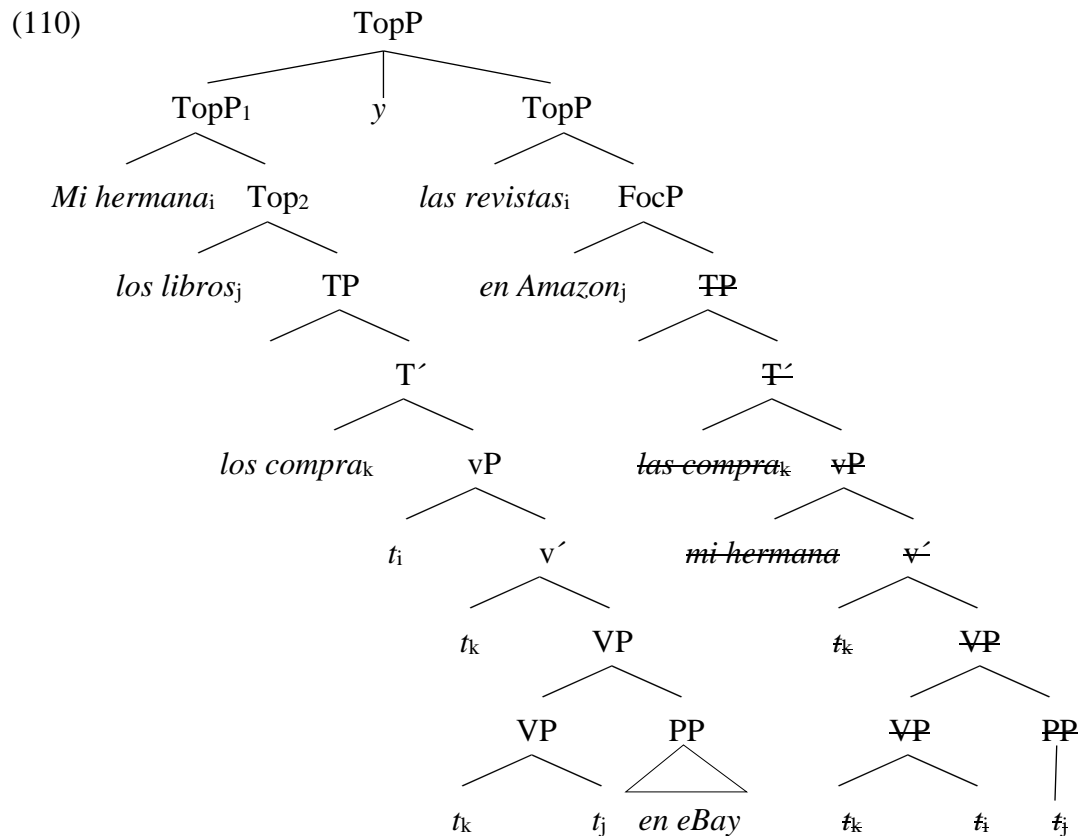
However, this kind of analysis has some problems to solve; e.g., the obligatoriness of the ellipsis in the second conjunct, and the reason why movement of the remnants is available only in the context of ellipsis. In a configuration like (110), the movement-plus-deletion analysis has no choice but to claim that gapping is obligatory because all the materials following the moved remnants cannot be pronounced, as shown in (111).

(111) Mi hermana los libros los   compra   EN EBAY,

my sister   the books CL.ACC buys.3.SG IN EBAY

y   las revistas   EN AMAZONᵢ (*las   compra *tᵢ*).

and the magazines IN AMAZON   CL.ACC buys.3.SG

'The books, my sister buys in eBay, and the disks in Amazon (*buys)'

Notice that this kind of deletion process clearly goes against the thesis that ellipsis is an optional phenomenon of natural language, as usually assumed in derivational approaches to ellipsis. Importantly, the deletion shown in (110) cannot be considered as a "rescuing" strategy suggested for sluicing where (some) island violations are argued to be repaired by ellipsis (Ross 1969; Chomsky 1971; Lasnik 2001, 2007, 2009, 2014, 2015; Merchant 2001,

2004, 2008; Fox and Lasnik 2003; Boeckx and Lasnik 2006, etc.). This is because there is no island violation whatsoever in (110) and thus repair by ellipsis cannot be the trigger of (obligatory) deletion.[160] Given this situation, the crucial question that needs to be asked is: what makes deletion obligatory? However, as mentioned before, the situation is that none of those analyses has offered a reasonable explanation for this matter.[161]

Moreover, there is good reason to believe that not all elements can be the remnants undergoing movement. Consider the example in (112).

(112) (En la   asamblea), los estudiantes exigieron todos más vacaciones,

    (in the assembly), the students   demanded all   more vacations

    y   los profesores ___ (todos) más docencia.[162]

    and the professors   (all)   more teaching

    'The students demanded all more vacations, and the professors ~~demanded~~ (all)

     more teaching'

According to the analysis shown in (110), both the subject *los profesores* and the object *más docencia* have been undergone movement prior to TP-deletion. But what about the quantifier *todos* of the second conjunct? Has this remnant also undergone movement? According to the movement-plus-deletion analysis, it should have moved too. However, there is no attested case of movement of the Spanish quantifier *todos* to some position above the TP; i.e. it can be found at best in [Spec,TP] from which the correlate DP *los profesores* undergoes further movement to the left-periphery, as illustrated in (113a-b) (see Chocano

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[160] See Barros (2014), Sailor and Schütze (2014), and Abe (2016b) for criticisms on (the existence of) repair by ellipsis.

[161] One might have recourse to Merchant's (1999, 2001) [E]-feature of a functional head as a trigger for the obligatory ellipsis. However, this analysis amounts to saying that ellipsis and non-ellipsis are derivationally unrelated to each other, given that the former always has a different numeration in which certain functional categories such as C° bear the [E]-feature which instructs its complement clause to be deleted at PF. That is, in the strict sense, an ellipsis sentence is not derived from its non-elliptical counterpart; they are not both sides of the same coin because each construction has a different numeration from the beginning. Thus, the [E]-feature-based analysis cannot state that ellipsis is optional, contrary to the general conception on the ellipsis. If so, repair by ellipsis should not be described as such; i.e. ellipsis is not a repairing strategy applied to non-elliptical sentences involving island violations. Instead, it must be described that ellipsis sentences, being that they have different numerations, do not have to do any island violation because the [E]-feature always makes the sentence grammatical; e.g., eliding phrases containing islands from which the remnant has been moved. In other words, island violation is not repaired by ellipsis but immaterial in contexts of ellipsis with [E]-feature.

[162] The presence of the universal quantifier *todos* in the second conjunct is also acceptable for native speakers who I have consulted.

and Torrego *to appear* for general discussions on the syntactic positions of Floating Quantifiers).

(113) a.   [$_{TP}$ [*Todos los profesores*]$_i$ [$_{T'}$ *exigen* [$_{vP}$ t_i *más docencia*]]].

    b.   [$_{XP}$ [*Los profesores*]$_j$ [$_{TP}$ [*todos* t_j]$_i$ [$_{T'}$ *exigen* [$_{vP}$ t_i *más docencia*]]]].

In fact, quantificational elements like *todos* (or *algunos*) cannot undergo movement on their own, as shown in (114).

(114) a.   *[$_{TP}$ [*Todos*]$_i$ [$_{T'}$ *exigen* [$_{vP}$ [t_i [*los profesores*]] *más docencia*]]].

    b.   *[$_{XP}$ [*Todos*]$_i$ [*creo que* [*exigen* [$_{vP}$ [t_i [*los profesores*]] *más docencia*]]]]]

Thus, an analysis of the sort illustrated in (110) must state that the universal quantifier *todos* has moved out of the ellipsis site (i.e. TP). To put it differently, the movement-plus-deletion analysis forces unmovable elements in the general cases to be movable in the context of ellipsis (see § 3.3.2). But this posture is highly stipulative and hard to justify at least empirically (see Boone 2014 and Weir 2015 for some attempts to give good reason for movement of the remnants purely to fulfil the needs of the PF-interface).[163]

    As an alternative to (110), I propose that the representation of the sentence in (104a) is the one illustrated in (115) in which some of the remnants (e.g. the PP *en Amazon*) are located in the first-merge position inside the vP.

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[163] Under the perspective of ellipsis-as-obligatory, of course, one might also invent a story that movement of an unmovable element is allowable because any violation caused by such movement is repaired by ellipsis, which is forced by the [E]-feature. If this is the case, then, it amounts to saying that once the [E]-feature appears encoded in a functional head, in theory any type of illicit operations could be possible because at PF all potential violations are erased by ellipsis. In this dissertation, although I will not evaluate whether this is true or not, I would like to point out that such kind of ability of the [E]-feature is too much to imagine.

(115)

```
                              XP
                    ┌──────────┼──────────┐
                   XP          y         XP[Delete]
              ┌─────┴─────┐          ┌─────┴─────┐
         Mi hermana_i    YP      mi hermana_i    YP
                    ┌─────┴─────┐          ┌─────┴─────┐
               los libros_j    TP     las revistas_j  TP
                          ┌─────┴─┐            ┌─────┴─┐
                          T´                   T´
                     ┌────┴────┐          ┌────┴────┐
                los compra_k   vP     las compra_m   vP
                          ┌────┴───┐          ┌────┴───┐
                         t_i       v´        t_i       v´
                              ┌────┴───┐          ┌────┴───┐
                             t_k      VP         t_k      VP
                                 ┌────┴───┐          ┌────┴───┐
                                VP       PP         VP       PP
                            ┌────┴──┐  ┌──┴──┐  ┌────┴──┐  ┌──┴──┐
                           t_k    t_j  en eBay t_k    t_j  en Amazon
```
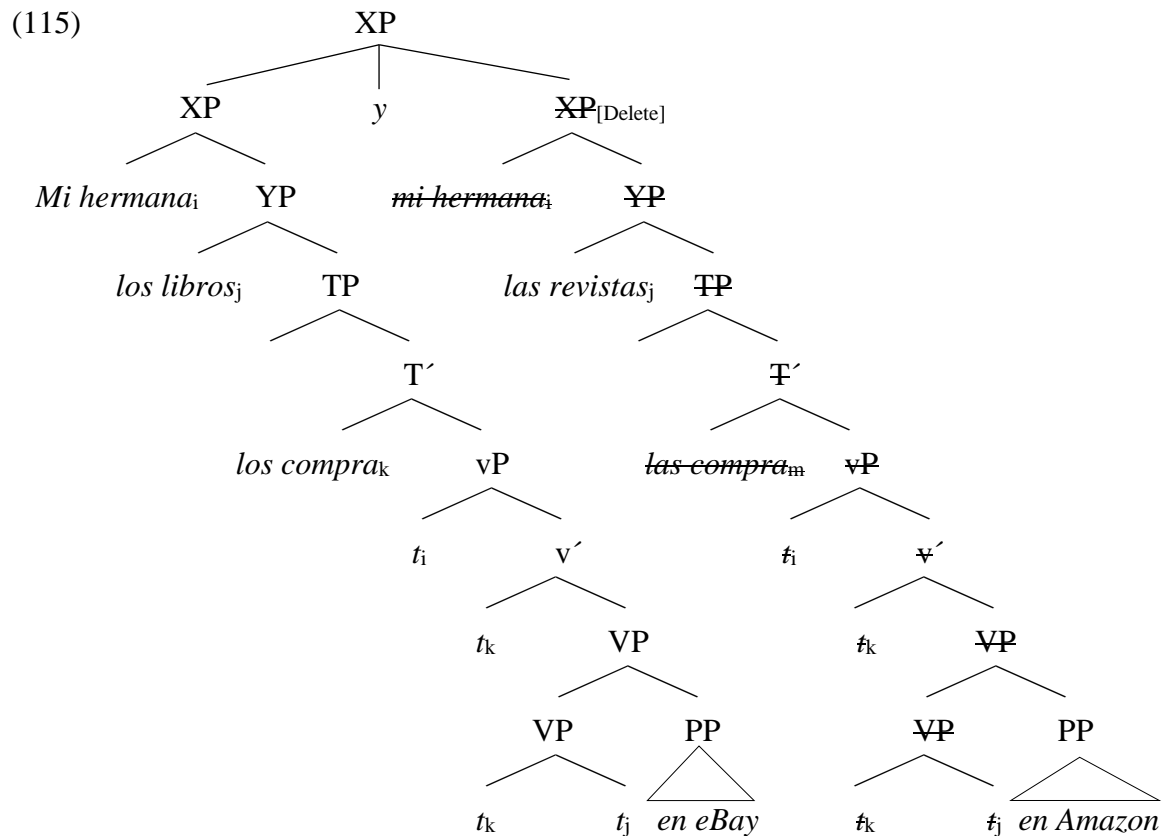
As I have argued in § 3.2.2.2, this type of analysis proposes that there is no single deletion operation affecting the constituents; instead, we have a sort of non-constituent deletion on the surface.

All the discussions thus far are basically applicable to the sentences in (104b) and (104c), and the same reasoning applies to these cases without further assumptions.

As originally noted by Hankamer (1979), gapping in English is not constrained by parallelism on the ordering of the remnants and their correlates (116).

(126) a. Harry cooked the beans, and Henry, the potatoes.   (*SVO & SO*)

  b. Harry cooked the beans, and the potatoes, Henry.   (*SVO & OS*)[164]

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[164] Hudson (1982: 549) claims that in English gapping, the order of constituents in the second conjunct is severely restricted, so that they parallel the order of the corresponding constituents in the first conjunct (ia), whereas in phrasal conjunction, the order of the second conjunct is less restricted (ib).

(i) a. [?*]John left at 11 and, at 12, Bill.
     b. John left his office at 11, and, at 12, the library.

However, Sag *et al* (1985: 158) coincide with Hankamer's judgement and provide examples like (ii).

(ii) A policeman walked in at 11, and at 12, a fireman.
      (cf. A policeman walked in at 11, and a fireman, at 12)

This is also true when the first conjunct of gapping is OSV (117), which is derived by topicalization.

(117) a.   The beans, Harry cooked, and the potatoes, Henry.   (*OSV & OS*)

     b.   The beans, Harry cooked, and Henry, the potatoes.   (*OSV & SO*)

From these observations, Hankamer concludes that examples like (116b) and (117a-b) involve topicalization as an independent transformation prior to applying gapping.

In Spanish, however, speakers vary in their judgements concerning the non-parallel ordering of the constituents (118b-119b).[165]

(118) a.   Juan cocinó las alubias, y   su hermano, las patatas.   (*SVO & SO*)
          John cooked the beans   and his bother   the potatoes
          'John cooked the beans, and his brother, the potatoes'
     b.   [%] Juan cocinó las alubias, y las patatas, su hermano.   ([%]*SVO & OS*)

(119) a.   Las alubias las   cocinaré yo, y   las patatas, mi madre.   (*OSV & OS*)
          the beans   CL.ACC will.cook I   and the potatoes my mother
          'The beans, I will cook, and the potatoes, my mother'
     b.   [%]Las alubias las cocinaré yo, y mi madre, las patatas.   ([%]*OSV & SO*)

But if gapping occurs within the conditional clauses, parallel ordering of the constituents is obligatory, as shown by the contrast between (120a) and (120b).[166]

(120) a.   Si yo compro el Mercedes y   tú   el Ferrari,
          if I   buy   the Mercedes and you the Ferrari

In the text, the description of the phenomenon in English, based on Hankamer (1979) and Sag *et al* (1985).

[165] According to my informants, for both (118b) and (119b) if there is a notable prosodic break right after the object of the second conjunct, the sentences are more acceptable than their counterparts without pause.

[166] I thank Vidal Valmala who draw my attention to this fact about the necessary parallelism on the ordering of the constituents within the conditional clauses.

Juan comprará el   Lamborghini.

Juan will.buy   the Lamborghini

'If I buy Mercedes and you Ferrari, John will buy Lamborghini'

b.   *Si yo compro el Mercedes y el Ferrari tú,

Juan comprará el Lamborghini.

At any rate, most native speakers who I have consulted consider the sentences in (118b) and (119b) less acceptable than those of (118a) and (119a). Given this situation, we need some way to explain why Spanish behaves differently from English (cf. (116a-b)) in this respect.

Let us first look at the example in (121), which is the non-elliptical counterpart of (118b).

(121) Juan cocinó las alubias,   (*SVO & OVS*)

John cooked the beans

y   las patatas las   cocinó su hermano.

and the potatoes CL.ACC cooked his bother

'John cooked the beans, y the potatoes, his brother cooked'

The grammaticality of this sentence shows that the constituent order parallelism between the conjuncts is basically immaterial for non-elliptical coordinate structures and relevant only for elliptical sentences. Perhaps, one may suggest that gapping could be derived from (121) by means of CLLD followed by PF-deletion, as illustrated in (122) (The underlined materials indicate that they are computed for identity).

(122) [TPA *Juan cocinó las alubias*], *y* [TPE *las patatas*i ~~*las cocinó*~~ *su herm*ano *t*i].

But the thing is that not all speakers I have consulted accept the resulting output from (122). Thus, the question that arises here is why this kind of example is not acceptable in Spanish, contrary to its English counterpart (in (116b)).

I suggest that the reason for the unacceptability of (118b) has something to do with the application of ellipsis shown in (122): there is a violation of identity requirement for

gapping since the antecedent of the target of ellipsis does not have ACC clitic *las*.[167] Thus, the target of ellipsis *las cocinó* 'CL-cooked' cannot be identical to its antecedent *cocinó* 'cooked', and therefore the application of deletion "under no identity" ultimately causes the unacceptability of (118b) (for those who do not accept it). Notice that if *cocinó* of the first conjunct in (122) were somehow identical to *las cocinó* of the second, we would wrongly predict that *cocinó* 'cooked' and *cocinó las patatas* 'cooked the potatoes' should be also identical in context of ellipsis (as well as in the general cases). However, this kind of identity cannot be possible primarily because *cocinar* is not semantically equivalent to *cocinar las patatas*, even under any loose version of identity condition existing in the literature. Thus, my claim is also semantically grounded in this sense.

Importantly, the aforementioned identity problem does not arise in English gapping because topicalization, contrary to CLLD, does not trigger the presence of any special morphosyntactic element. Therefore, in (116b) the application of ellipsis can be allowed, as illustrated in (123).

(123) [TPA *Harry* <u>*cooked*</u> *the beans*], *and* [TPE *the potatoes*ᵢ *Henry* ~~*cooked*~~ *t*ᵢ].

In context of parallelism such as (124a), of course, the identity condition is appropriately satisfied, as both target of ellipsis and its antecedent involve ACC clitic (124b), though φ-features of clitics are different, as indicated by the underlined feature specification.

(124) a.   El suflé   lo   traerás   tú, y   las cervezas yo.

the soufflé CL.ACC will.bring you and the beers   I

'The soufflé, you will bring, and the beers, me'

b.   [TPA *El suflé* <u>*lo*</u> *traerás tú*], y [TPE *las cervezas* ~~*las traeré*~~ *yo*]

CL.ACC.MASC.SG   CL.ACC.FEM.PL

As for this kind of feature mismatches, we know that φ-features are not (so) relevant for the computation of identity in many ellipsis phenomena.[168] In the literature, some authors

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[167] I have already assumed that pronominal ACC clitics appear as such in overt syntax; they are products of clitic doubling under the "Big DP" hypothesis, and thus they are not PF-realizations of the agreement features. But this does not mean that ACC clitics are not consequences of agreement relation. Both the DAT and the ACC clitics are basically agreement markers, but the realization of each clitic form is different; the former appears at PF, whereas the latter, in overt syntax.

[168] The potential exception of this claim might be found in Depiante and Hankamer (2006) where the authors argue that gender feature is relevant for licensing Spanish nominal ellipsis, as shown in (i).

like Merchant (2001), Vicente (2008), Elliott (2013), and Barros (2014), a.o., have already shown that φ-features of the verb (or the verbal complex) are not crucial for identity (*contra* Sag 1976/1979; Williams 1977; Kitagawa 1991; Fiengo and May 1994; Lasnik 1999; Johnson 2001; Saab 2004; Depiante and Hankamer 2006; Merchant 2008, who support one way or another the strict morphosyntacitc identity in ellipsis). Therefore, it can be said that in (124a) the identity requirement is satisfied in an appropriate way, so that deletion is allowed in (124b).

There are some other facts which support my proposal that the unacceptability of (118b) is due to the lack of what I will call "minimal identity" hereinafter; specifically, in contexts where the target of ellipsis contains clitic, but the antecedent does not.

In Spanish, it is well-known that if the recipient DP argument is topicalized over the verb *enviar* 'send', it triggers the presence of clitic (CLLD), as shown in (125a). With the same verb *enviar*, however, a locational PP argument like *a Paris* 'to Paris' is utterly incompatible with clitic (125b).

(125) a.   A Juan *(le)   envié los libros.

          to John *(CL.3.SG) I.sent the books

      b.   A Paris (*le)   envié los libros.

          to Paris (*CL.3.SG) I.sent the books

Given this situation, the prediction is that the combination of both types of arguments in coordination involving gapping should be impossible, as the minimal identity requirement would be violated. The contrast in (126) shows that this prediction is indeed borne out.

(126) a.   A Juan le   envié los libros, y   a Paris envié las revistas.

          to John CL.3.SG I.sent the books and to Paris I.sent the magazines

          'To John, I sent the books and to Paris, I sent the magazines'

(i)   El   tío de Juan y la   (*tía) de María.

     the.MASC uncle of John and the.FEM (*aunt) of Mary

     'John's uncle and Mary's aunt'

These authors suggest that under a Split DP-structure such as [DP [NumP [GenP [NP N°]]]], Gen° is the licensing head of the nominal ellipses in Spanish (see also Masullo and Depiante 2001; Saab 2011, 2016; Merchant 2014, a.o.). In the argumentation of the text, I limit myself to referring to the clausal domain where the gender feature included in the verb (or in the clitic) does not seem to play a role in licensing ellipsis.

b. *A Juan le envié los libros, y a Paris, las revistas.

    to John CL.3.SG I.sent the books and to Paris the magazines

    'To John, I sent the books and to Paris, the magazines'

This also explains the contrast between (127a) and (127b).

(127) a. A Juna le envié los libros,

    to John CL.3.SG I.sent the books

    y las revistas se las envié a María.

    and the magazines CL.3.SG CL.ACC.PL I.sent to Mary

    'To John, I sent the books, and the magazines, I sent to Mary'

b. *A Juna le envié los libros,

    to John CL.3.SG I.sent the books

    y las revistas a María.

    and the magazines to Mary

    'To John, I sent the books, and the magazines, I sent to Mary'

Here again the minimal identity between the antecedent and the target of ellipsis is not satisfied because the former does not contain ACC clitic, contrary to the latter. For that reason, gapping is not acceptable in (127b).

Logically, if both the antecedent and the target of ellipsis do not have any clitic, the minimal identity will be satisfied without problem. Accordingly, the resulting sentence is perfectly acceptable, as shown in (128).

(128) A Paris envié los libros, y a Londres, las revistas.

    to Paris I.sent the books and to London the magazines

    'To Paris, I sent the books and to London, the magazines'

In fact, the minimal identity is reminiscent of Fiengo and May's (1994) conception on ellipsis identity: ellipsis expressions must respect structural identity.[169] However, this is a

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[169] They said that "under what circumstances can bits of syntactic structure be said to be the same as or different from other bits of syntactic structure? . . . The grounds on which expressions are identical . . . are twofold. One, there must be lexical identity−they are composed of the same lexical expressions; and two, there must be structural identity−the constituent elements that dominate the lexical expressions must be syntactically organized in the same way (Fiengo and May 1994: 11)".

minimum condition to be met in the well-formedness of any ellipsis expression. That is, such a structural (or purely syntactic) identity is not sufficient to account for isomorphic issues involved in many ellipsis constructions. Accordingly, to properly recover the elided material(s), we need both semantic and syntactic identity, as suggested by Rooth (1992), Chung (2006, 2013), Craenenbroeck (2008), Anderbois (2011), Elliott (2013), Merchant (2013), Barros (2014), and Weir (2014), a.o.[170]

In summary, the examples discussed above clearly show that there must be a minimal identity between 'CL-V' and 'CL-V'; otherwise, deletion cannot be allowed. If this is the case, all the contrasts so far suggest strongly that the deletion process illustrated in (122) should not be allowed, and if so, the sentence in (118b) is expected to be unacceptable.

Without further discussion, I contend that the same reasoning applies to the sentence in (119b), which also involves the non-parallel ordering of the constituents, and the minimal identity is not met between the target of ellipsis and its antecedent.[171]

Finally, when the first conjunct of Type-I gapping in Spanish involves VSO, there must be a parallel ordering of the constituents, as shown in (129).

(129) a. ?Trajo   Juan los libros y su hermano las revistas.[172]   (*VSO & SO*)
          bring.3.SG John the books and his brother   the magazines

    a´. *Trajo Juan los libros y las revistas su hermano.   (**VSO & OS*)

    b. Trajeron Juan los libros y su hermano las revistas.   (*VSO & SO*)
          bring.3.PL John the books and his brother   the magazines

    b´. ??Trajeron Juan los libros y las revistas su hermano.   (?? *VSO & OS*)

Why should this be so? Is this fact also related to the minimal identity mentioned above? There must be some explanation for the contrasts in (129).

Let us consider first (129a´), which my informants consider totally ungrammatical.

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[170] In this dissertation, I assume this mixed perspective on ellipsis identity. In fact, the issue of the appropriate formulation of the identity condition on ellipsis and its antecedent is still under debate in current literature. Phillips and Parker (2014) have carried out experiment works on the identity of ellipsis. Their experiment results show that there is a controversy in determining whether the identity condition is syntactic or semantic or of both, pointing out that "experimental investigations address the tension between syntactic identity constraints that tend to undergenerate and semantic identity conditions that tend to overgenerate (Phillips and Parker 2014: 93)".

[171] Here I will leave for future research the grammar of Spanish that allows somehow the sentences in (118b) and (119b), assuming that for those speakers, the minimal identity is less restricted than others.

[172] Recall that I have mentioned earlier that native speakers of Spanish prefer cumulative agreement to non-cumulative agreement in gapping with 'VSO & SO'.

My contention is that the ungrammaticality of this sentence is due to the fact that object shift of the second conjunct does not trigger verb movement, similar to what happened in (89b). That is, the second conjunct of (129a´) involves unmotivated object shift. As mentioned before, object shift is possible only with subsequent verb movement (i.e. Holmberg's generalization), so that the surface order of the second conjunct in (129a´) implies that verb movement should be involved in the derivation. However, this cannot be the case because in the case of Type-II gapping with non-cumulative agreement, the gap of the second conjunct is derived not by ATB-movement of V but by PF-deletion (cf. § 3.2.1). Thus, the second conjunct in (129a´) cannot involve verb movement, and thereby object shift remains without motivation, as illustrated in (130).

(130)

```
                    TP
                    /\
                      T´
                     /\
                Trajo_i   vP
                         /|\
                       vP  y  vP
                      /\      /\
                  Juan  v´  las revistas_j  vP
                       /\              /\
                      t_i  VP    su hermano   v´
                          /\             /\
                        t_i  los libros  las trajo_k  VP
                                                     /\
                                                    t_k  t_j
```
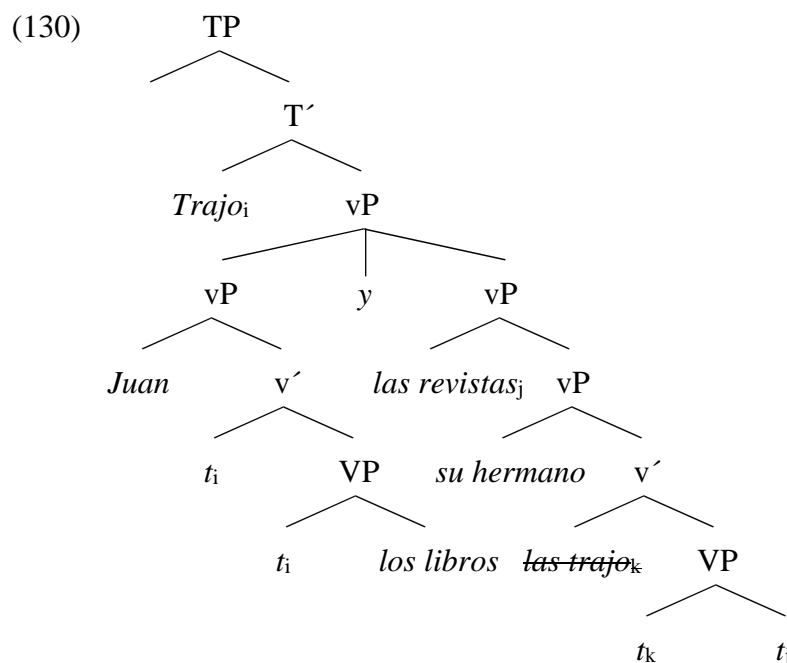
In addition, this configuration has another problem concerning the identity requirement; i.e. *trajo* of the first conjunct is not identical to *las trajo* of the second conjunct. This is because the ellipsis clause involves CLLD and thus must contain ACC clitic *las*, whereas the antecedent clause does not have any clitic due to the absence of CLLD. Therefore, the deletion of *las trajo* 'CL-brought' is not acceptable, considering the identity requirement on ellipsis: [OK]'CL-V' & 'C̶L̶ ̶V̶'/*'CL-V' & V̶/*V & 'C̶L̶ ̶V̶'.

Concerning the example in (129b´), on the other hand, I suggest that this kind of unacceptability is also attributable to processing difficulties, similar to the case discussed earlier (cf. (89a)). That is, when parsing the sentence in (129b´), some kind of confusions arises with the plural agreement on the verb. Accordingly, if we avoid such confusion, the

resulting output should be acceptable. This prediction is borne out, as shown in (131) where changing the subject of the first conjunct to either 1st or 2nd person renders the sentence acceptable.

(131) a.   Trajimos   yo los libros y las revistas   mi hermano.
         brought.1.PL I   the books and the magazines my brother

    b.   Trajisteis   tú   los libros y las revistas   tu   hermano.
         brought.2.PL you the books and the magazines your brother

Of course, this strategy does not apply to the ungrammaticality of (129a´), as shown in (132).

(132) *Traje   yo los libros y las revistas   mi hermano.
        brought.1.SG I   the books and the magazines my brother

This is because in the case of Type-II gapping with non-cumulative agreement (cf. (89b)), the problem was syntactic: object shift without verb movement, and thereby changing the subject of the first conjunct has no effect on the acceptability of the sentence.

      Another explanation for the unacceptable sentence in (129b´) could be that we make use of the minimal identity; i.e. having a clitic or not is crucial for the calculation of identity. Since the verbal complex of the first conjunct does not contain ACC clitic due to the lack of CLLD, *trae* cannot be identical to *las trae* of the second conjunct. Thus, we cannot under any circumstance allow ATB-movement of 'V-v' to T°, as illustrated in (133).

(133)

```
                            TP
                           /  \
                              T´
                            /    \
                           T      vP
                          /ꜛ    /  |  \
                              vP    y    vP
                            /   \      /    \
                         Juan    v´  las revistas_k  vP
                               /    \          /    \
                            trae_i   VP   su hermano  v´
                                    /  \            /   \
                                  t_i  los libros  las trae_j  VP
                                                              /  \
                                                            t_j   t_k
```

☹
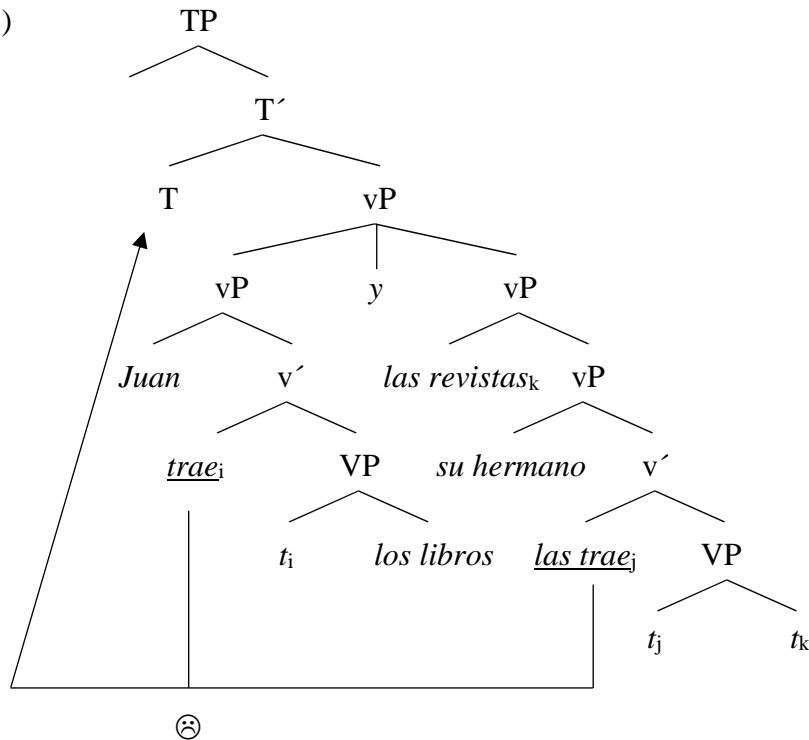
Either way, we can offer explanations for the unacceptability of (129b´).

To sum up, in this section I have shown that my proposal on the non-unity of gapping is on the right track to account for various gapping patterns observed in Spanish. Moreover, I have proposed that there must be a minimal identity between the antecedent and the target of ellipsis in order for this to be elided in a legitimate way. In this way, we can differentiate Spanish from English when analyzing data involving dislocated elements such as CLLD and topicalization. Finally, I have also argued that in the case of Type-I Spanish gapping, the ordering of the remnants must be fixed due to the independent syntactic reason; namely object shift in the absence of verb movement.

3.3. Conclusion

In this chapter, I have argued that gapping in Spanish is not a uniform phenomenon: there are indeed two different types; namely Type-I and Type-II. It has been shown convincingly that Spanish gapping involves more than one derivation, and thereby the main hypothesis of this dissertation; namely the non-unity of gapping, is confirmed with Spanish data.

As for the analysis of gapping in Spanish, I have proposed that some instances of gapping (i.e. Type-I) involve low-coordination in which the gap can be analyzed as either the trace of ATB-movement (in the case of cumulative agreement on the verb) or the result

of PF-deletion (in the case of non-cumulative agreement), showing that this hybrid analysis is empirically supported (e.g. the optional pronunciation of the lexical verb in the second conjunct). For cases where gapping involves high-coordination (i.e. Type-II), I have argued that the PF-deletion analysis can account for a number of data such as narrow-scope reading, embedded gap/antecedent, NPI-licensing, passivization, *wh*-extraction, and conditional clauses. In this manner, we have accounted for empirical data in a more satisfactory way.

In addition, as an alternative to the standard movement-plus-deletion analysis, I have offered an alternative in terms of deletion without movement, and I have argued that it has substantial empirical as well as theoretical advantages over the other types of the PF-deletion analysis.

Finally, I have discussed different word orders of Spanish gapping, e.g. 'OSV & OS', 'VSO & SO', and 'VOS & OS', all of which involve non-canonical syntactic phenomena such as CLLD and topicalization, and I have shown that the non-unity of gapping is also on the right track when analyzing these gapping patterns in a principled way.

CHAPTER 4

GAPPING IN KOREAN

4.1. Previous analyses

4.1.1.　　Deletion analyses

In the literature, there have been two types of the PF-deletion analysis for Korean gapping.

Sohn (1994, 1998, 2001), on the one hand, proposes that the gapping sentence in (1) has the derivation shown in (2) in which the missing material of the first conjunct is derived by VP-deletion fed by prior movement of the remnants to multiple specifiers (Kuroda 1988) of FP in each conjunct; similar to Jayaseelan's (1990) analysis of English pseudogapping, which is typically analyzed as an instance of VP-deletion after evacuation of the remnant via movement (see also Lasnik 1999a and Takahashi 2004 for some variants of Jayaseelan's original analysis).

(1)　　John-i　　Mary-ekey kkot-ul __,　Bill-i　　Sue-ekey chayk-ul chu-ess-ta.
　　　　John-NOM Mary-DAT　flower-ACC　Bill-NOM Sue-DAT　book-ACC give-PAST-DEC
　　　　'John ~~gave~~ Mary a flower and Bill gave Bill a book'

(2)

TP
├─ TP
│ ├─ *John*
│ └─ T´
│   ├─ FP[173]
│   │ ├─ *Mary$_1$*
│   │ └─ FP
│   │   ├─ *flower$_2$*
│   │   └─ ~~VP~~
│   │   ├─ *t$_1$*
│   │   └─ ~~VP~~
│   │   ├─ *t$_2$*
│   │   └─ ~~V~~ — ~~*chu-ko*~~
│   └─ T
├─ &
└─ TP
   ├─ *Bill*
   └─ T´
      ├─ FP
      │ ├─ *Sue$_1$*
      │ └─ FP
      │   ├─ *book$_2$*
      │   └─ VP
      │   ├─ *t$_1$*
      │   └─ VP
      │   ├─ *t$_2$*
      │   └─ V — *chu-ess-ta*
      └─ T
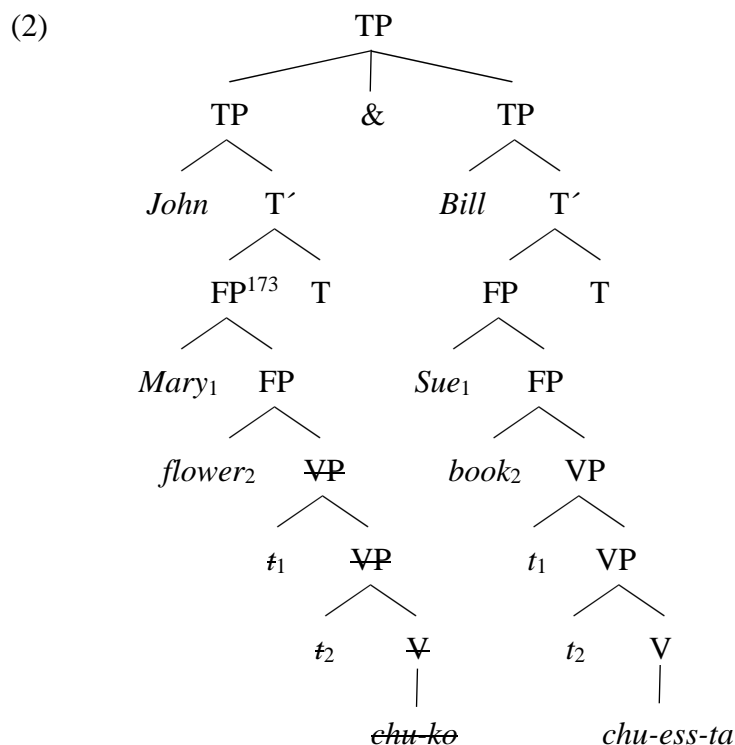
Since Sohn proposes that gapping involves high-coordination plus VP-deletion, it is crucial for Korean not to have verb movement in overt syntax; otherwise, deletion cannot target the verb and this can thus never be elided at PF. In this case, it takes for granted that the lexical verb (or the verb stem) and its inflectional ending (e.g. Tº) are M(orphological)-merged prior to PF-deletion; otherwise, the Tº of the first conjunct remains stranded at PF, violating the SAF (Lasnik 1981), which forces affixal inflection (i.e. bound morphemes) to merge with a verb.

On the other hand, Kim (1997, 1998, 2003, 2006) proposes that the gap of the first conjunct in (3) is obtained by movement of the remnants followed by deletion of the TP, as shown in (4). In this case, although the author assumes that the verb stays in situ, as depicted in the structure below, this is not crucial for his analysis because even if it were moved to Tº, it would always be included in the ellipsis site (i.e. TP).[174]

(3)   John-un pang-ul   ___, kuliko Mary-nun bap-ul   mek-ess-ta.
       John-TOP bread-ACC   and   Mary-TOP rice-ACC eat-PST-DEC
       'John ~~ate~~ bread, and Mary ate rice'

---

[173] Sohn does not specify the categorical nature of Fº; probably it may be a Focus (or Topic) at the low-periphery (*á la* Belletti 2001, 2004). Recall that, as I mentioned in chapter 3, the existence of such projection below the TP was questionable due to the lack of independent evidence.

[174] I will review Kim's dissertation defended in 1997 since nothing is substantially changed in his later works.

(4)

```
                            FocP
             ┌───────────────┼───────────────┐
           FocP            kuliko           FocP
      ┌──────┴──────┐              ┌──────────┴──────────┐
     DP₁          Foc´           DP₃                   Foc´
   ┌──┴──┐      ┌──┴──┐        ┌──┴──┐              ┌──────┴──────┐
John-un pang-ul₂ TP̶E̶  Foc  Mary-nun bap-ul₄       TPA           Foc
              ┌───┴───┐                        ┌───┴───┐
            A̶g̶r̶P̶     T̶                       AgrP      T
          ┌──┴──┐                            ┌──┴──┐
         v̶P̶    A̶g̶r̶                          vP     Agr
       ┌──┴──┐                            ┌──┴──┐
      t̶₁    v̶´                           t₃    v´
          ┌──┴──┐                            ┌──┴──┐
         V̶P̶    v̶                           VP     v
       ┌──┴──┐                            ┌──┴──┐
      t̶₂    V̶                            t₄    V
            │                                  │
          m̶e̶k̶-̶k̶o̶                          mek-ess-ta
```
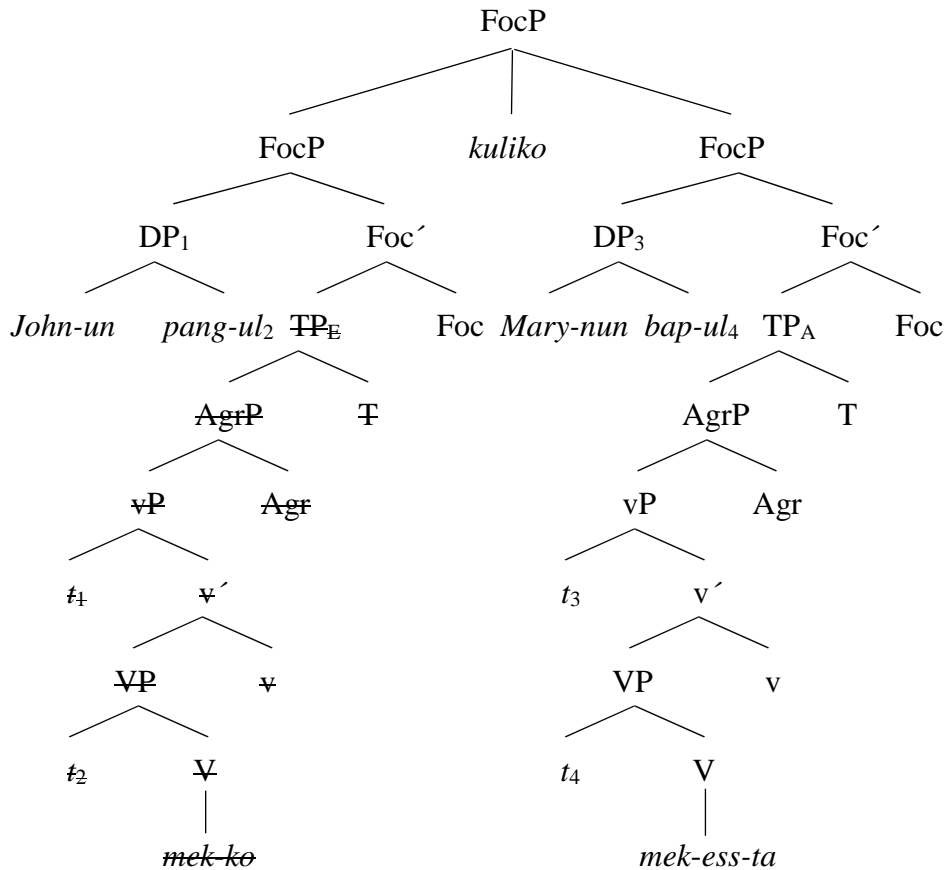
(Kim 1997: 175-176)

In essence, both analyses above are very similar in that they argue that Korean gapping is an instance of movement-plus-deletion, though they differ from each other on the ellipsis sites; namely VP *vs*.TP. Another difference between the two is that in Sohn's analysis, the remnants undergo movement to some positions below the TP, whereas in Kim's analysis they move to positions above the TP. But this difference in the landing sites of the remnants is not significant for the gist of the movement-plus-deletion analysis.

Since these two analyses propose high-coordination plus PF-deletion for Korean gapping, it is obvious that they can derive complex gaps in the same way as simple gaps. For instance, under Kim's analysis, the complex gap in (5) comes as a result of movement of the remnants followed by TP-deletion, as shown in (6).

(5) John-un   chayk-ul ___ ___, kuliko Mary-nun disk-ul   Bill-eykey
     John-TOP book-ACC   and   Mary-TOP disk-ACC Bill-DAT

cwu-ess-ta.[175]

give-PST-DEC

'John ~~gave~~ a book ~~to Bill~~, and Mary gave a disk to Bill'

(6)
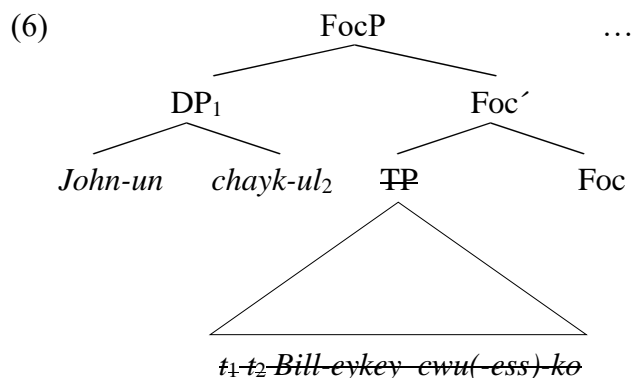
Notice that, unlike head-initial languages like English and Spanish where overt movement of the remnants is parasitic upon deletion, this is not the case in head-final languages like Korean in which movement of the remnants is equally possible with or without ellipsis.[176]

Finally, both the analysis in (2) and the one in (4) do not need to assume a specific mechanism for Case assignment and φ-feature valuation of the subjects. This is because each conjunct has its own T°, and therefore NOM Case is assigned to the subject DP and φ-features of T° are valued via Agree in a standard way.

---

[175] As for the word order between the two internal arguments of the Korean ditransitive constructions, it should be noted that, since Korean is a scrambling language, it allows for word order variations; e.g., the internal arguments (i.e. the IO and the DO) of the verb can be freely reordered. The standard approach to the underlying order of Korean ditransitive is that the [Theme-Goal] order is derived from the [Goal-Theme] order by moving the Theme across the Goal (Lee 1991, 1993; Cho 1994; Choi 1999; Lee 2004; Oh and Zubizarreta 2009; Kim 2008, 2016, etc.). If we follow this approach, accordingly, the word order shown in (5) is derived from (i) via scrambling of DO.

(i)   John-un   Sue-eykey___ ___, kuliko Mary-nun Bill-eykey disk-ul
            John-TOP Sue-DAT   and   Mary-TOP Bill-DAT disk-ACC
            cwu-ess-ta.
            give-PST-DEC
            'John ~~gave a book~~ to Sue, and Mary gave a disk to Bill'

For my purposes in the text, it does not matter whether sentences like (5) involve scrambling or they are underlying structures from which the word order in (i) is derived, because in any case scrambling occurs just as part of Korean syntax, and not as part of deletion process itself. Therefore, scrambling does not affect the gist of movement-plus-deletion in both Sohn's and Kim's analyses.

[176] The same can be said for Japanese without any further assumption, as far as I can tell. In Korean, non-canonical word orders such as VSO and VOS are basically unacceptable in both gapping and other syntactic environments such as Right-Dislocation (RD) where more than one RDed element is highly deviant for me and for those who I have consulted. Thus, I will consider only cases where the verb of the second conjunct appears at the final position of the sentence; namely SOV and OSV.

However, there are some problems in the analyses shown in (2) and (4). Notice that in both types of deletion analysis, what is implicitly assumed is that the source of gapping is the sentence in (7a) in which the tense affix is not overtly realized in the first conjunct. However, it is not clear why the authors do not consider that Korean gapping has the source structure shown in (7b) where the verb of the first conjunct contains the past tense affix – *ess*, just like the verb of the second conjunct. This possibility is compatible with the high-coordination involved in (2) and (4), and obviously more convincing than that of (7a) as far as the identity requirement for ellipsis is concerned.

(7) a. John-un pang-ul <u>mek-ko</u>, kuliko Mary-nun bap-ul <u>mek-ess-ta</u>.
         John-TOP bread-ACC eat-KO and   Mary-TOP rice-ACC eat-PST-DEC
         'John ate bread, and Mary ate rice'

     b. John-un pang-ul <u>mek-ess-ko</u>, kuliko Mary-nun bap-ul <u>mek-ess-ta</u>.
         John-TOP bread-ACC eat-PST-KO and   Mary-TOP rice-ACC eat-PST-DEC
         'John ate bread, and Mary ate rice'

In any case, the problem lies in the fact that, as both the analysis in (2) and the one in (4) involve high-coordination, the only way to explain the non-overtly realized tense affix in the first conjunct is to assume a sort of null T° for past tense, as in Chung (2001, 2003, 2005) where the author posits a null past tense marker $\emptyset_{past}$ to account for the fact that the first conjunct of (7a) always has the past tense interpretation.[177] Why is this problematic for both Sohn's and Kim's analyses? As claimed by Jung (2015), such a null T°-analysis is controversial because its application is limited only to coordination; e.g., in both the simple sentence (8B) and the embedded clause (9), if the lexical verb appears without the tense affix, it leads to ungrammaticality.

(8) A: (Ne) bap mek-ess-ni?
         (you) rice eat-PAST-Q
         'Did you eat'

---

[177] This proposal with null T° should not be confused with the fact that in languages like Japanese and Korean, the present tense is always realized by zero morpheme: there is no overt marker for present tense. This is of course not the case for past tense because we have seen that in Korean, the past tense has its own overt marker *-ess*. As will be shown in the text, there is no complementary distribution between an overt past tense affix and its covert counterpart assumed by null T° for past tense.

B: (Na) mek*(-ess)-e.

(I) eat*(-PAST)-DEC

'I ate'

(9) Mary-nun John-i   bap-ul   mek*(-ess)-ta-ko   malha-ess-ta.

Mary-TOP John-NOM rice-ACC eat*(-PAST)-DEC-that say-PAST-DEC

'Mary said that John ate'

Given this situation, it is hard to believe that the grammar of Korean employs a null Tº for past tense. If this is the case, both Sohn's and Kim's analyses are not tenable because they crucially assume that Korean gapping is derived not from (7b) but from (7a) in which they have no choice but to exploit a null Tº in the first conjunct; otherwise, there is no way to explain the fact that the structure in (7a) is the source of gapping. This is a serious problem for both Sohn and Kim.

At this point, one might wonder how such issue of the source structure could be dealt with. As will be shown later (see § 4.2), my contention is that both the sentence in (7a) and the one in (7b) can be sources for Korean gapping. Specifically, I propose that the sentence in (7a) is the source of gapping involving low-coordination, whereas the sentence in (7b) is the source involving high-coordination. Given this situation, I further propose that in fact the sentence in (7a) involves vP-coordination, so that there is no Tº-projection whatsoever in the first conjunct, and thus the tense interpretations of both conjuncts are precisely given by the single Tº above the vP-coordination. Evidence for this claim comes from scope facts observed in Korean coordination. As noticed by Kim (2007: 88-90), the two coordinate sentences in (10) have different possibilities of scope interpretations; e.g., the sentence in (10a) is two-ways ambiguous in that the negation can take scope over either the second conjunct only (10ai) or the whole coordination (10aii). By contrast, the sentence in (10b) is unambiguous because the only possible reading is that the negation scopes only over the second conjunct.

(10) a.   Chelswu-ka   Sunhi-eykey chayk-ul   cwu-ko,

Chelswu-NOM Sunhi-DAT   book-ACC give-KO

Doli-ka   Myunghi-eykey chayk-ul   cwu-ci ani   ha-ess-ta.

Doli-NOM Myunghi-DAT   book-ACC give-CI NEG do-PAST-DEC

(i) 'Chelswu gave the book to Sunhi, and Doli didn't gave the book to

Myunghi' (A & NOT(B))

(ii) 'It is not the case that Chelswu gave the book to Sunhi and Doli gave the

book to Myunghi' (NOT (A&B)

b. Chelswu-ka Sunhi-eykey chayk-ul cwu-ess-ko,

Chelswu-NOM Sunhi-DAT book-ACC give-PAST-KO

Doli-ka Myunghi-eykey chayk-ul cwu-ci ani ha-ess-ta.

Doli-NOM Myunghi-DAT book-ACC give-CI NEG do-PAST-DEC

(i) 'Chelswu gave the book to Sunhi, and Doli didn't give the book to

Myunghi' (A & NOT(B))

(ii) '*It is not the case that Chelswu gave the book to Sunhi and Doli gave the

book to Myunghi' (NOT (A&B))

(Kim 2007: 89, (11))

What is of interest to us is the scope interpretation in (10aii) where the negation scopes over both conjuncts, which means that the first conjunct must be in the scope of the negation. For Korean, it has been generally agreed that a NegP is always generated below the TP (e.g. Yoon 1990; Hagstrom 1995, 1996; Han *et al* 2007, a.o.). Accordingly, when we have the wide scope reading in (10aii), the first conjunct must be a vP, and therefore the whole sentence involves low-coordination because there is only one negation present in (10a). If this is the case, then it is not implausible that the sentence in (7a) could involve the same type of coordination as the one involved in (10a). On the contrary, there is no doubt that the sentence in (7b) involves TP-conjuncts: because each conjunct contains the past tense morpheme *-ess*, and therefore the tense interpretation of each conjunct is given by its own T°. In addition to this, the scope interpretation in (10bi) also reinforces the fact that both conjuncts are not vPs but TPs, considering the syntax of NegP in Korean mentioned above.

Moreover, as the analyses in (2) and (4) propose high-coordination, it is obvious that they cannot account for the wide-scope reading of negation (11).

(11) John-un pang-ul ___, kuliko Mary-nun bap-ul mek-ci ani-*ha*-ess-ta.

John-TOP bread-ACC and Mary-TOP rice-ACC eat-CI NEG-do-PST-DEC

(i) 'John didn't eat bread and Mary didn't eat rice'

(ii) 'It is not the case that John ate bread and Mary ate rice'

That is, in contrast to the narrow-scope reading in (11i), which is naturally expected under TP-deletion, the wide-scope reading in (11ii) cannot be obtained under that kind of analysis. As will be shown in § 4.2 in a more detailed way, scope facts can be successfully explained if each scope reading originates from a different source structure; to be precise, the low-coordination provides the wide-scope reading, whereas the high-coordination provides the narrow-scope reading.

Note also that both Sohn and Kim propose that, like the remnants of the first conjunct, the correlates of the second conjunct also undergo overt movement to multiple specifiers of FocP (or FP). This kind of movement is of course string vacuous in SOV languages like Korean (or Japanese), though this cannot be the case in SVO languages like English (or Spanish). As will be seen in § 4.2, in contrast to their analyses, one of the advantages of my analysis will be that in principle, it can apply not only to SOV but also to SVO languages, as it does not propose that the remnants (as well as their correlates) undergo movement in overt syntax prior to PF-deletion.[178]

More recently An (2007) proposes a string deletion analysis of Korean RNR (see also An 2015, 2016).[179] This author argues that an ellipsis construction such as (12) involves the derivation shown in (13) where the shaded materials illustrate the elided strings. He states that "RNR proceeds as if it applies from right to left, eliminating the relevant elements one by one (Elements in the grey boxes are the ones that are affected by RNR, i.e. RNR targets. Each structure is also presented in a labeled bracket format, which makes it easier to see how the structure is to be generated under the Deletion analysis) (An 2007: 163)".[180]

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[178] Another problem for both Sohn's and Kim's analyses is related to the morpheme –*ko*, which appears attached to the preceding verb in (2) and (4). Under these analyses, the morpheme –*ko* should not be elided as far as the identity requirement is concerned; i.e. it is not clear whether –*ko* has the same categorical status as tense or complementizer. Since for my analysis of Korean gapping (see § 4.2) I will assume that the morpheme –*ko* is a sort of Morphological Closure (MC) in the sense of Kang (1988), the ellipsis site does not contain it because it does not appear when ellipsis happens. That is, –*ko* appears attached to the preceding verb only if this is overtly realized at PF. Thus, when ellipsis applies to the verb, there is no reason for –*ko* to be present; i.e. it appears only in regular coordinate structures to close off the verb stem, which is bound root in Korean. Thus, my analysis does not have to say anything about the presence/absence of –*ko*. Of course, both Sohn's and Kim's analyses might assume this perspective on –*ko*, unless its representation in (2) and (4) by strikethrough has something important for their analyses.

[179] As far as I know, Mukai (2003) was the first who proposes this kind of deletion apparatus for RNR/gapping in languages like Japanese. An's analysis is of course based on Mukai's insight. In the text, I will review An's dissertation defended in 2007 since his later papers do not involve substantial changes on the contents.

[180] In this quote, RNR basically refers to gapping in Korean. To the best of my knowledge, both RNR and gapping are cover terms for the same ellipsis phenomenon in this SOV language; i.e. they refer to the ellipsis affecting the verbal material(s) with more than two remnants. In the text, I have cited An's examples as such, and thus I am not responsible for the English gloss and translations.

(12) Tomo-nun Ana-ka pang-eyse ppang-ul, kuliko

T-top   A-nom room-at   bread-acc and

Nina-nun Zhanna-ka pwuek-eyse bap-ul,

N-top   Z-nom   kitchen-at rice-acc

mekess-tako malhayssta.

ate-comp   said

'Tomo (said that) Ana (had) bread in the room and Nina said that Zhanna had rice

  in the kitchen.'

<div align="right">(An 2007: 160, (34a))</div>

(13)
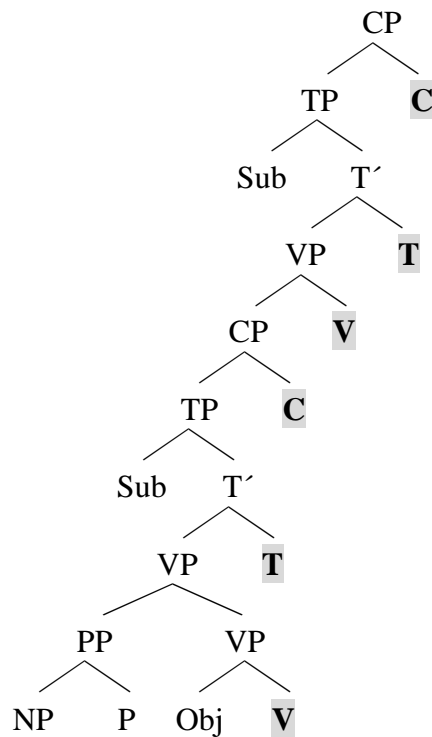
[CP [TP Sub [VP [CP [TP Sub [VP [PP NP P] [VP Obj ~~V] T] C] V] T] C~~]

<div align="right">(An 2007: 163, (38))</div>

In a similar way, the author proposes that complex gaps such as (14) have the same string deletion derivations, as illustrated in (15) and (16), respectively.

(14) a.   Tomo-nun Ana-ka pang-eyse,   kuliko

T-top   A-nom room-at   and

Nina-nun Zhanna-ka pwuek-eyse,

N-top   Z-nom   kitchen-at

<div align="center">170</div>

bap-ul   mekess-tako malhayssta.

rice-acc ate-comp   said

'Tomo (said that) Ana (had rice) in the room and Nina said that Zhanna had

  rice in the kitchen.'

b.   Tomo-nun Ana-ka   pang, kuliko

T-top   A-nom   room and

Nina-nun Zhanna-ka pwuek,

N-top   Z-nom   kitchen

-eyse bap-ul   mekess-tako malhayssta.

-at   rice-acc ate-comp   said

'Tomo (said that) Ana (had rice in) the room and Nina said that Zhanna had

  rice in the kitchen.'

<div align="right">(An 2007: 161, (35a) and (36a))</div>

(15)

[CP [TP Sub [VP [CP [TP Sub [VP [PP NP P] [VP Obj V] T] C] V] T] C]

<div align="right">(An 2007: 164, (39))</div>

(16)

[Syntax tree diagram]

CP
├── TP
│   ├── Sub
│   └── T´
│   ├── VP
│   │   ├── CP
│   │   │   ├── TP
│   │   │   │   ├── Sub
│   │   │   │   └── T´
│   │   │   │   ├── VP
│   │   │   │   │   ├── PP
│   │   │   │   │   │   ├── NP
│   │   │   │   │   │   └── **P**
│   │   │   │   │   └── VP
│   │   │   │   │   ├── **Obj**
│   │   │   │   │   └── **V**
│   │   │   │   └── **T**
│   │   │   └── **C**
│   │   └── **V**
│   └── **T**
└── **C**

[CP [TP Sub [VP [CP [TP Sub [VP [PP NP P̶]̶ ̶[̶VP O̶b̶j̶ ̶V̶]̶ ̶T̶]̶ ̶C̶]̶ V] T] C]
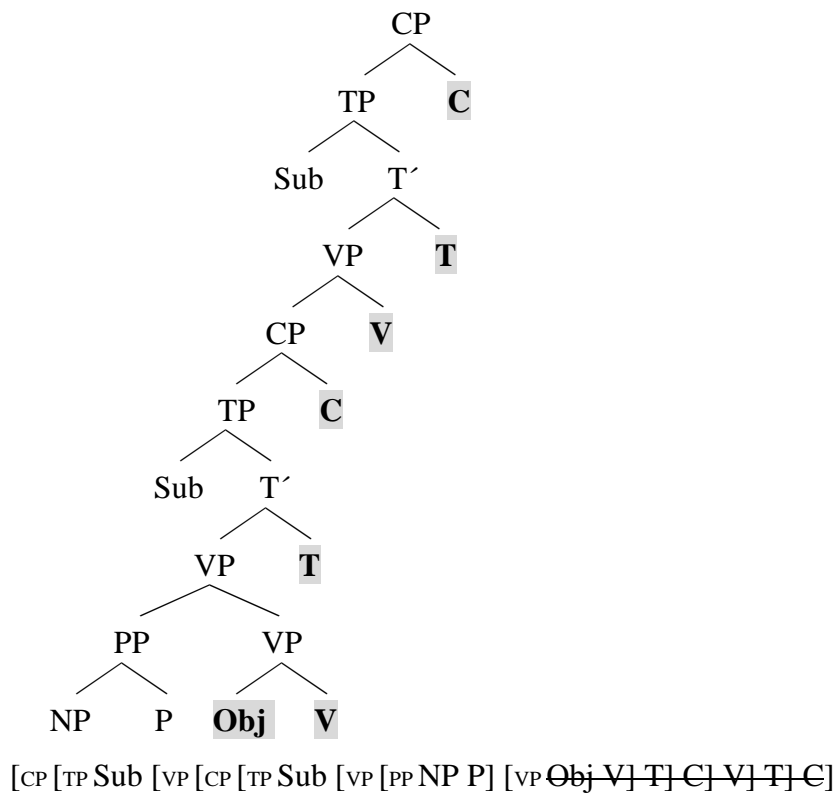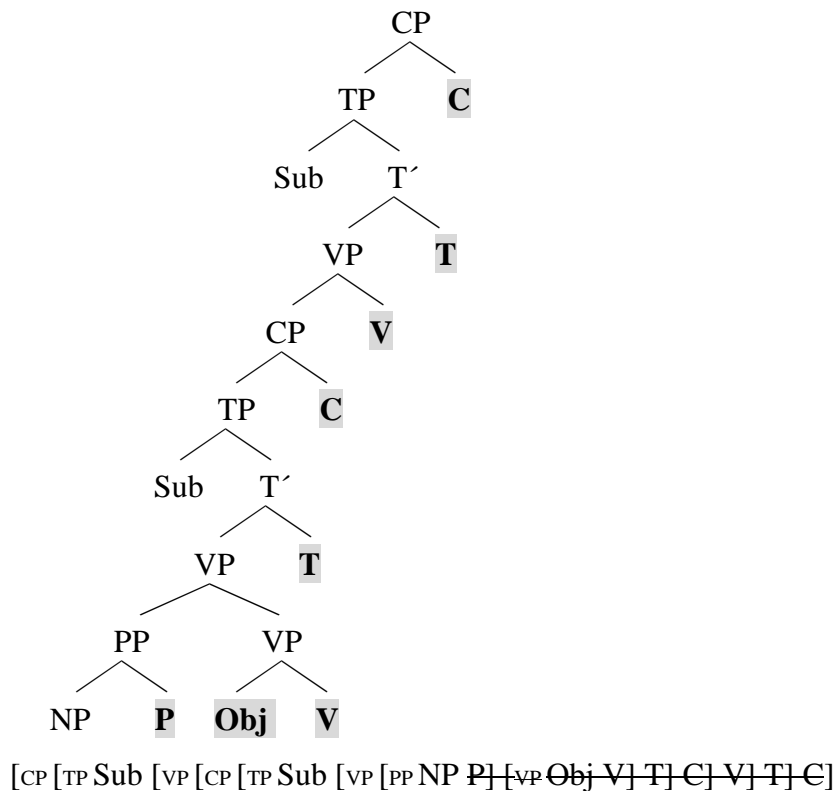
(An 2007: 164, (40))

Given this type of analysis in terms of string deletion, he states that "it seems very difficult to capture the linear incrementality manifested by (39) to (42-43) in purely syntactic structural terms. In fact, it seems completely impossible to describe this property by means of any familiar syntactic notions such as c-command, dominance, sisterhood, constituent, etc. What matters here is linear order. Therefore, under the assumption that linear order is determined at PF, the property of RNR examined here provides strong evidence that RNR is not an operation of the syntax proper, but of PF (An 2007: 165)".

In a nutshell, the gist of An's analysis is that in Korean, gapping (or RNR in his terminology) is the result of removing linear strings at PF. For this kind of deletion mechanism to properly work, the author states that it is crucial that "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 (An 2007: 158)". An's string deletion analysis is attractive because it does not need to evacuate the remnants for the purpose of ellipsis, as well as the simplicity of the analysis itself.

However, there are some problems with this analysis. Notice that, as shown in the illustration of his analysis above, An (2007: 196) assumes the coordination of full-fledged

clauses (i.e. CP-coordination) for Korean RNR (or gapping in my terminology), so that it is obvious that his analysis has no way to account for the wide-scope reading of negation.[181]

In what follows I will present two more arguments against An's string deletion analysis; the problem of string deletion when there is no PF-identity, and the validity of his analysis when analyzing the gapping sentences involving discontinuous gaps.

As mentioned before, Mukai (2003) was the first who proposed the string deletion analysis, which removes any continuous string that contains a verb under PF-identity with the antecedent. She states that "… the struck-through part is deleted provided that it is identical to the underlined part as a phonetic string (Mukai 2003: 210)". This author provides evidence showing that Japanese RNR (or gapping in my terminology) is sensitive to the identity requirement at PF. As shown in (17a), in Japanese, *mesiagaru* is the honorific suppletive form for the plain verb *taberu* 'eat' that a speaker uses to express some respect to the person denoted by the subject. Accordingly, the suppletive verb form *mesiagaru* in (17b) is unacceptable due to honorific mismatches.

(17) a.   Kootyoosensei-ga tempura-o   mesiagatta/*tabeta.
           principal-NOM   tempura-ACC ate[+HON]/ate[-HON]
           'The principle ate tempura'
      b.   Boku-ga tempura-o   *mesiagatta/tabeta.
           I-NOM   tempura-ACC ate[+HON]/ate[-HON]
           'I ate tempura'

(Mukai 2003: 212, (19) and (21b))

Given this, Mukai claims that string deletion is sensitive to the surface verb form, and thus the ungrammaticality of (18) is due to the fact that the verb forms *mesiagaru* and *taberu* are distinct for the application of string deletion, which naturally falls out if string deletion is sensitive to the PF-identity condition.

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[181] Jayaseelan (2012) argues that Dravidian languages like Malayalam do not have CP-coordination, employing only TP-coordination for clauses. He extends the idea to an East Asian language like Japanese does not have CP-coordination but TP-coordination. If Korean behaves in a way similar to Japanese in this respect, then, assuming a full-fledged coordination is problematic from the beginning (see in particular Kim 2007 who argues that in Korean, there is no CP-coordination involved in context of backward gapping). This perspective on TP-coordination may be supported by the fact that in Japanese, relative clauses are TPs (rather than CPs) (Murasugi 1991); a fact clearly contrasts with languages like English and Spanish, where relative clauses are basically CPs, and not TPs. I will leave a detailed study on this correlation for future research.

(18) *Boku-ga tempura-o   ~~tabeta~~,   kootyoosensei-ga osusi-o   mesiagatta.

    I-NOM   tempura-ACC ate[-HON] principal-NOM   sushi-ACC ate[+HON]

    'I ~~ate~~ tempura, and the principal ate sushi'

<div align="right">(Mukai 2003: 212, (22))</div>

However, the Korean counterpart of (18) is acceptable, as shown in (19) where string deletion affects the plain (or non-honorific) verb of the first conjunct.

(19) Ne-ga   twikim-lul   ~~mekessko~~, kuliko koochangsensaygnim-i chobap-lul

    I-NOM   tempura-ACC ate[-HON] and   principal-NOM   sushi-ACC

    dussiessta.[182]

    ate[+HON]

    'I ~~ate~~ tempura, and the principal ate sushi'

If string deletion, as claimed by Mukai, crucially depends on the PF-identity, the sentence in (19) should be ungrammatical, contrary to fact. Thus, unlike in Japanese, the PF-identity is not needed in Korean, and thus what we have in (19) is not string deletion.[183]

Another problem of the string deletion analysis comes from complex discontinuous gaps. As shown in (20), in Korean, some adverbials like *manhi* 'often' and *chocwum* 'seldom' can appear only in the position immediately preceding the verb.

(20) John-un *manhi sakwa-lul manhi mek-e.

    John-TOP *often apple-ACC often   eat-DEC

    'John often eats apples'

---

[182] I have found some native speakers who consider this sentence somewhat deviant. However, if we change NOM Case by Topic marker (i), the resulting sentence is fully acceptable for those speakers.

(i) Ne-nun twikim-lul   ~~mekessko~~, kuliko koochangsensaygnim-un chobap-lul dussiessta.
    I-TOP tempura-ACC ate[-HON] and   principal-TOP   sushi-ACC ate[+HON]
    'I ate tempura, and the principal ate sushi'

In any case, my argumentation of the text does not hinge on this difference in subject marking.

[183] An (2007: 118) assumes that his analysis with string deletion basically applies to both Japanese and Korean with no special difference.

Having this background in mind, consider now the gapping sentence in (21) where the elided material consists of the strings that are not adjacent to each other, but the resulting output is fully grammatical.

(21) John-un ~~sakwa-lul~~ manhi ~~mek-e~~, kuliko Mary-nun sakwa-lul chocwum mek-e.
     John-TOP apple-ACC often eat-DEC and Mary-TOP apple-ACC seldom eat-DEC
     'John often ~~eats apples~~, and Mary seldom eats apples'

As mentioned before, the crucial condition to be met in An's analysis was that elements affected by ellipsis must be linearly adjacent to each other, and thus no overt material can intervene in between the targets of ellipsis (i.e. the adjacency condition). However, this condition is not satisfied in (21), though the sentence is fully grammatical. Therefore, we can conclude that the string deletion analysis cannot derive (21).

      Notice that for examples like (21), we cannot assume that the ellipsis of the object DP *sakwa-lul* 'apple-ACC' is a consequence of null object *pro* (or Argument Ellipsis (AE) of the DP) by claiming that it occurs independently from the gapping operation. The main argument against this possibility is that, as claimed by Jung (2016a), backward *pro* (or AE) is not possible in Korean coordinate structures, as shown in (22).

(22) *John-i   *pro*$_i$ ss-ess-ko,   kuliko Mary-ka   ku nonmwun-ul$_i$
      John-NOM *pro* wrote-PAST-KO and   Mary-NOM that paper-ACC
      sujeongha-ess-e.
      revise-PAST-DEC
      (Lit.) "John wrote *pro*$_i$ and Mary revised that paper$_i$"

<div align="right">(Jung 2016a: 7, (14a))</div>

This is also true for backward pronominalization of an overt pronoun. As noted by some authors like Ross (1967), Kuroda (1968), Langacker (1969), and Kuno (1972, 1975), a.o., while backward pronominalization can be possible either conjunct-internally (23a) or in adjunct clauses (23b), it is not possible across coordinate structures (24a-b) (Examples are taken from Ross 1967).

(23) a.   His$_i$ mother loves John$_i$.
     b.   While he$_i$ was working, the professor$_i$ slept.

(24)   a.   Shelia$_i$ answered that question, but she$_i$ still did poorly.

       b.   *She$_i$ answered that question, but Shelia$_i$ still did poorly.

Thus, the missing object under discussion cannot be *pro* nor the product of AE, and it must therefore be the result of the clausal ellipsis containing the verb; i.e., the elided object DP in (21) is part of such deletion process.

     I conclude that these two arguments are robust enough to argue against An's string deletion analysis of Korean gapping.[184]

4.1.2.   Non-deletion analyses

Following Johnson (1994), Lee (2005) proposes that gapping in Korean is derived by ATB-movement of the verb, so that, according to her analysis, a gapping sentence like (25) has the derivation shown in (26).

(25)   John-un   pang-ul   ___, kuliko   Mary-nun   bap-ul   mek-ess-e.

       John-TOP   bread-ACC   and   Mary-TOP   rice-ACC   eat-PST-DEC

---

[184] In the literature, Ahn and Cho (2006) have provided another sort of argument against the string deletion analysis. They claim that the difference in sentence-internal/external readings of *same* (or *different*) between a regular coordinate structure (ia) and gapping (ib) is also challenging for such analysis.

(i)   a.   John-nun   Mary-eykey katun   chayk-ul   cwu-ess-ko,   kuliko
             John-TOP   Mary-DAT   the.same   book-ACC   give-PAST-KO   and
             Tom-nun   Jane-eykey katun   chayk-ul   cwu-ess-e.
             Tom-TOP   Jane-DAT   the.same book-ACC   give-PAST-DEC
             'John gave to Mary the same book, and Bill gave to Susan the same book'
                                      (✗'sentence-internal' reading/✓'sentence-external' reading)
     b.   John-nun   Mary-eykey ___ ___, kuliko
             John-TOP   Mary-DAT   and
             Tom-nun   Jane-eykey katun   chayk-ul   cwu-ess-e.
             Tom-TOP   Jane-DAT   the.same book-ACC   give-PAST-DEC
             'John gave to Mary the same book, and Bill gave to Susan the same book'
                                    (✓'sentence-internal' reading/✓'sentence-external' reading)
                                            (Ahn and Cho 2006: 53, (12))

In the literature, it has been noted that the sentence-internal reading of *same* (or *different*) can be licensed only when the sentence denotes a plural eventuality (Carlson 1987). The fact that only the sentence-external reading of *katun chayk* 'the same book' is possible in (ia) indicates that the book John gave to Mary does not have to be the same as the one that Tom gave to Jane. Not surprisingly, this kind of interpretive differences cannot be explained under the string deletion analysis because (ib) is basically derived from (ia). However, it is difficult to get the sentence-internal reading in (ib), and my informants coincide with my judgement. If so, Ahn and Cho's example cannot be considered as argument against An's analysis because it assumes a high-coordination which provides only the sentence-external reading. In any case, I do not see the contrast shown in (i), and such kind of interpretive difference is hard to obtain for my informants. Thus, I do not consider it as counterargument of An's string deletion analysis.

'John ~~ate~~ bread, and Mary ate rice'

(26)
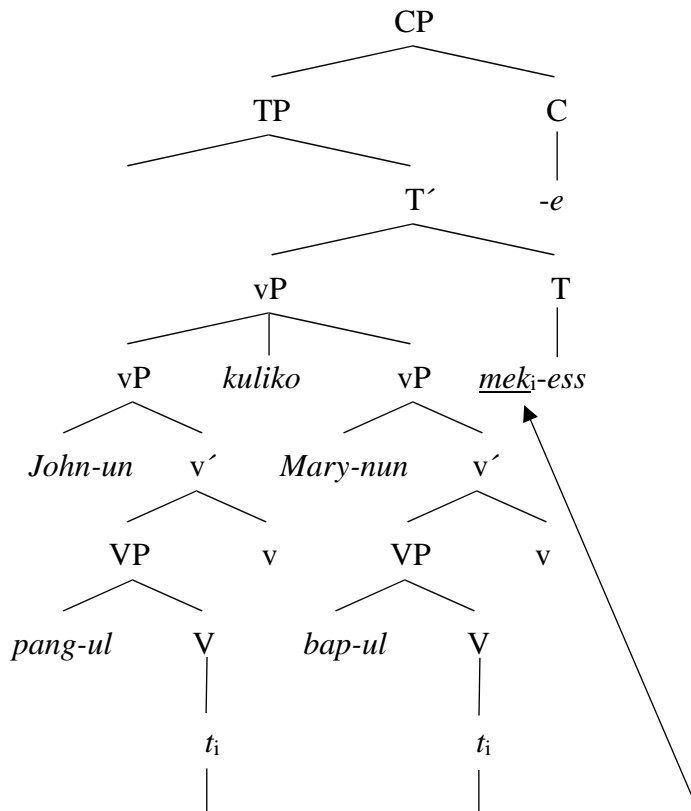
(Lee 2005: 584, (44a))

As a crucial argument for the analysis shown in (26), Lee provides scope facts in Korean gapping.[185] According to her, the sentence in (27) has the wide-scope reading of negation.

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[185] It is well-known that Korean has two different negative constructions; namely short-form negation and long-form negation, depending on the surface position of the negation. In the former, the negation is realized by prefixing *an-* to the VP (ia), whereas in the latter, the particle *–ci* is attached to the verbal stem, followed by the independent negative marker *ani*, and the dummy verb *ha* 'do' is inserted in the stranded T° (ib).

(i) a. John-i   pang-ul   an-mek-ess-e.   (*Short-form negation*)
         John-NOM bread-ACC NEG-eat-PAST-DEC
         'John didn't eat bread'
     b. John-i   pang-ul   mek-ci ani-ha-ess-e.   (*Long-form negation*)
         John-NOM bread-ACC eat-CI NEG-do-PAST-DEC
         'John didn't eat bread'

In the literature, it has been widely claimed that long-form negation involves *ha*-support as a Last Resort operation (iia), which is roughly equivalent to *do*-support employed in English clausal negation (iib) (see a.o. Hagstrom 1995, 1996, 1997, 2000, 2002; Jo 2000, 2004, 2013; Aoyagi 2006a,b for more details on *ha*-support in both long-form negation and other syntactic environments such as VP-focalization and V-reduplication).

(ii) a. John-un   pang-ul   mek-ci ani*(-*ha*)-ess-ta.   (*Korean*)
         John-TOP bread-ACC eat-CI   NEG*(-do)-PST-DEC
         'John didn't eat bread'
     b. 'John *(did) not eat bread'   (*English*)

(27) John-un pang-ul ___, kuliko Mary-nun bap-ul mek-ci ani *ha*-ess-ta.

John-TOP bread-ACC and Mary-TOP rice-ACC eat-CI NEG do-PST-DEC

(i) 'John didn't eat bread and Mary didn't eat rice'

(ii) 'It is not the case that John ate bread and Mary ate rice'

Under this analysis, the wide-scope reading in (27ii) is obtained from the derivation shown in (28) in which the lexical verb undergoes ATB-movement to Pred° generated below the NegP.[186]

(28)
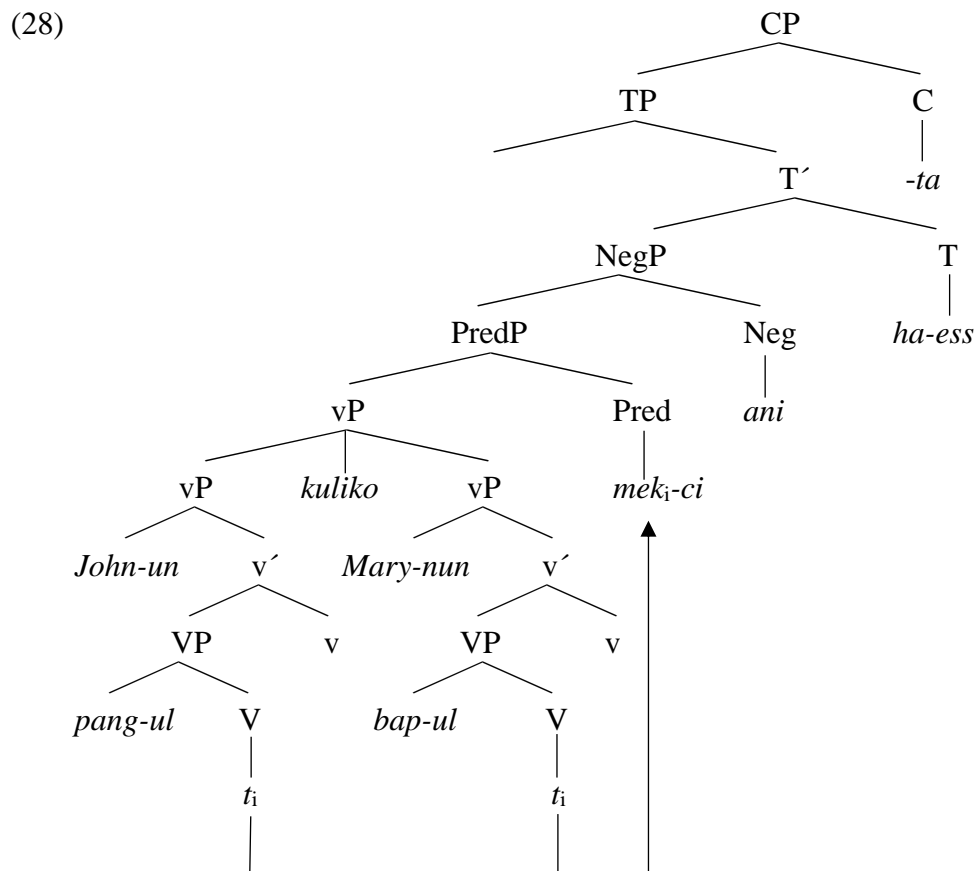
Thus, the major consequence of the analysis given in (28) (or (26)) is that it can account for the wide-scope reading in a satisfactory way. This is because, by hypothesis, there is only one instance of negation above the vP-coordination, so that it naturally scopes over the whole coordination and thus yields the interpretation shown in (27ii).

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[186] Lee does not give a detailed derivation for the narrow-scope reading. Thus, in the text I will present the derivation of such reading based on her analysis and some additional assumptions involved in her analysis. In (28), in addition, I have assumed that the morpheme –*ci* is another MC (Hagstrom 1995, 1996) to close off the verb ATB-moved in Pred°.

However, the obvious problem of Lee's analysis is how to account for the narrow-scope reading in (27i), which is also possible in Korean, just like English (cf. § 2.2) and Spanish (cf. § 3.2). In fact, Lee (2005: 549-550) suggests that the narrow-scope reading in (27i) might be attributable to NegP-coordination, but without some details. Thus, let us see whether this suggestion could derive the gapping sentence with the narrow-scope reading. The structure she suggests would be that shown in (29), where following Lee's analysis in (26), each NegP dominates a PredP. As in Lee's analysis, the verb in each conjunct of (26) moves to Pred°, but of course this is not ATB-movement because there is no way to have one instance of the gap of the verb from a configuration like (29). Furthermore, we also want to have the gap of the negation. However, if the two NegP are coordinated, as Lee suggests, there are two negations, so that there is no way to obtain one single instance of negation. Of course, movement of the whole verbal complex plus negation to some position is not possible because they do not form a constituent. In addition, it is generally assumed that negation does not undergo any movement at least in languages like Korean. As claimed by Hagstrom (1995, 1996), a.o., in Korean long-form negation, the dummy verb *ha* 'do' occupies the position of T°, so that the negation *ani* cannot move to T°: the HMC. Thus, the supposed ATB-movement of the negation to T° should not be possible for the same reason. All things considered, the configuration given in (29) does not, indeed cannot, derive the gap shown in (27).

(29)

```
                            CP
                    ┌────────┴────────┐
                   TP                 C
             ┌──────┴──────┐          │
                          T´         -ta
                    ┌──────┴──────┐
                  NegP            T
            ┌──────┴──────┐       │
          NegP   kuliko   NegP   ha-ess
        ┌───┴───┐       ┌───┴───┐
       Neg´            Neg´
     ┌───┴───┐       ┌───┴───┐
   PredP   Neg     PredP   Neg
  ┌──┴──┐  │      ┌──┴──┐   │
      Pred´ ani       Pred´ ani
     ┌───┴───┐       ┌───┴───┐
    vP      Pred    vP      Pred
  ┌──┴──┐   │     ┌──┴──┐    │
John-un v´ mek-ci_i Mary-nun v´ mek-ci_j
     ┌───┴───┐       ┌───┴───┐
    VP       v      VP        v
  ┌──┴──┐          ┌──┴──┐
pang-ul  V       bap-ul   V
         │                │
        t_i               t_j
```
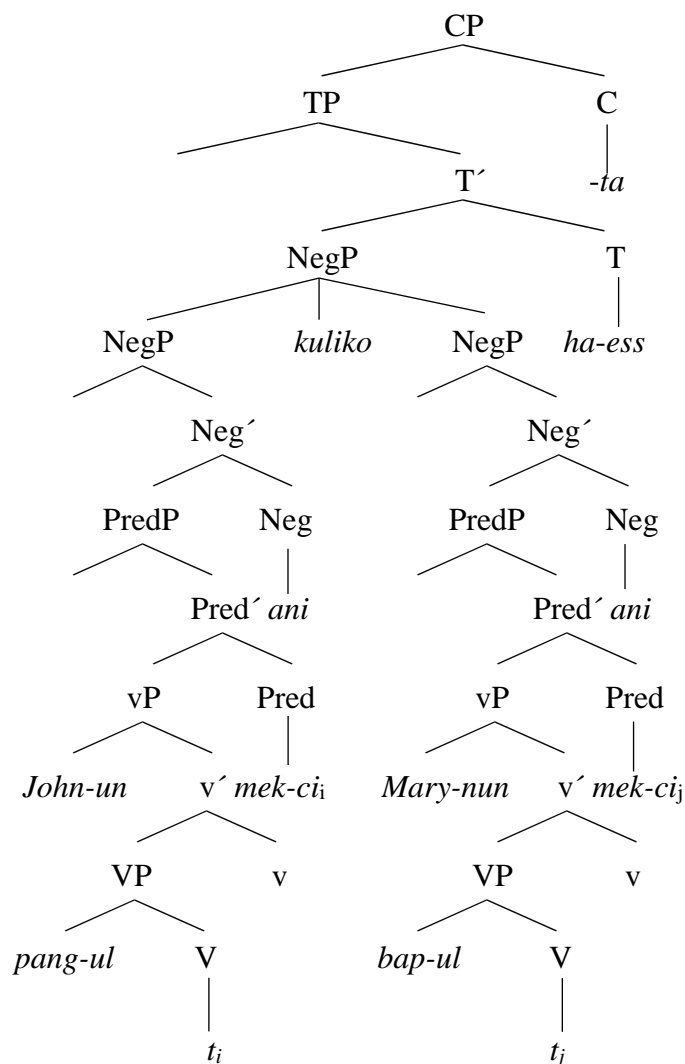
Notice that Lee's analysis crucially assumes that in non-negative contexts of Korean gapping, the main verb moves to T° in overt syntax (e.g. Yoon 1990; Otani and Whitman 1991; Park 1992; Cho 1994; Yi 1994; Choi 1999; Koizumi 2000; Aoyagi 2001, 2005, 2006, a.o.). As a matter of fact, verb movement in Korean syntax is still under debate in current literature. Han *et al* (2007, 2016), for example, have carried out experimental studies on Korean verb movement, and their results show that Korean has indeed two types of grammars as far as verb movement is concerned. They found variability in scope judgments on Korean QPs and negation between speakers, but not within a speaker. These authors thus conclude that there are two groups of speakers of Korean, and attribute this fact split to the coexistence of two grammars differing on the height of the verb. Given this situation, what we will predict is that, if Lee's analysis in (26) is correct, then, only speakers of V-raising grammar will allow the gapping sentence in (25), whereas those speakers of non-V-raising grammar should not allow it. However, this cannot be the case because every

Korean speaker allows to produce gapping sentences like (25), contrary to the expectations of Lee's analysis. As will be shown in § 4.2, in my analysis of Korean gapping, it will not matter whether the verb undergoes movement to T° in overt syntax (or not), and therefore it will be compatible with both types of Korean grammar proposed by Han *et al*.

Furthermore, there is another problem in Lee's analysis; i.e. the absence of the "No-Embedding Constraint" in Korean gapping. As claimed by Johnson (1996/2004, 2009, 2014), this constraint is a crucial argument in support of low-coordination in gapping (cf. § 2.1). However, as mentioned in § 1.3.2, there are instances of embedded antecedents in Korean. The relevant examples are given in (30) and (31).

(30) John-i   sakwa-lul ___, kuliko na-nun Mary-ka   orange-lul   mek-ess-ta-ko
     John-NOM apple-ACC   and   I-TOP Mary-NOM orange-ACC eat-PAST-DEC-that
     sangkakha-e.
     think-DEC
     'John ~~ate~~ an apple, and I think that Mary ate an orange'

(31) Na-nun John-i   sakwa-lul ___, kuliko Bill-nun Mary-ka   orange-lul
     I-TOP   John-NOM apple-ACC   and   Bill-TOP Mary-NOM orange-ACC
     mek-ess-ta-ko   sangkakha-e.
     eat-PAST-DEC-that think-DEC
     'I ~~think that~~ John ~~ate~~ an apple, and Bill thinks that Mary ate an orange'

That is, an analysis like (26) cannot account for the examples in (30) and (31) because there is no room for the matrix clause within the second conjunct.

Finally, and more seriously, Lee's ATB-movement analysis, as it stands, is valid only for simple gaps; in fact, she does not discuss any instance of complex gaps in Korean. My claim is that under Lee's analysis, there is no way to move the VP in the way Johnson (1996/2004) does for complex gaps in English; i.e. via ATB-movement of the VP to [Spec,PredP] (cf. § 2.2.2). The main reason to reject this possibility is that, if VP-movement to [Spec,PredP] applies to Korean gapping, we have unwanted word orders like VSO & SO (or VOS & OS) in which the verb ends up preceding the arguments due to the fact that the specifiers appear to the left of XP (Kayne 1994). However, these two word orders are impossible for me and for those who I have consulted. Although Korean is a scrambling language that allows for some derived orders such as OSV and OVS, VOS and VSO orders

are impossible in this language.[187] Note that it is highly implausible to suppose that there is a right-branching specifier of XP to which the VP undergoes ATB-movement. Such a right-branching specifier is not standardly assumed at least in languages like Korean (or Japanese).[188] After all things considered, I conclude that Lee's ATB-movement analysis cannot derive complex gaps in Korean.

In line with the movement approach to Korean gapping, Jung (2012) tries to reinterpret Lee's analysis in terms of sideward movement, but under high-coordination.[189] Jung assumes that the gapping sentence in (32) involves a TP-coordination on a par with its non-elliptical counterpart in (33).

(32) John-un pang-ul   ___, kuliko Mary-nun bap-ul   mek-ess-e.
      John-TOP bread-ACC   and   Mary-TOP rice-ACC eat-PST-DEC
      'John ~~ate~~ bread, and Mary ate rice'

(33) John-un pang-ul   mek-ess-ko, kuliko Mary-nun bap-ul   mek-ess-e.
      John-TOP bread-ACC eat-PST-KO and   Mary-TOP rice-ACC eat-PST-DEC
      'John ate bread, and Mary ate rice'

---

[187] I do not know of any previous research on these word orders in Korean (or Japanese). As mentioned before, more than one instance of RD is completely unacceptable for those who I have consulted including myself.

[188] To my knowledge, no one has proposed such thing for Korean. In the literature, some authors like Aissen (1992) and McCloskey (2005), a.o. propose the right-branching specifiers (*contra* Kayne 1994) to derive 'V-first' orders observed in Mayan languages and Irish. However, such a right-branching specifier is limited to only certain languages at best. In fact, some authors like Maling (1972), Kuno (1978), Saito (1987), and Koizumi (2000) have proposed another sort of ATB-movement analysis of gapping in languages like Japanese. The basic idea of this analysis is that the lexical verb undergoes ATB-movement from both TP-conjuncts to some position adjoined to the highest TP, similar to the ex-situ analysis of English RNR.

(i)   [TP [TP S O t_i] and [TP S O t_i] V$_i$]

At first sight, one might pursue this kind of analysis for Korean gapping, as an alternative to Lee (2005). However, the general problem of the analysis shown in (i) is that in that configuration, it is not clear at all how those verbal affixes (e.g. tense marker) can be attached to the displaced verb. If ATB-movement takes place in syntax, then it must be the case that what is moved to a position adjoined to TP is not the verb but the verbal complex (e.g. [V°(-v°)-T°]). However, the problem is that the verbal complex [V°(-v°)-T°] cannot form a constituent eligible to undergo ATB-movement; there is no attested case like this in natural languages. Note that this matter is independent of verb movement (or not). If there is no verb movement to v°, then the problem is even worse; i.e. in this case, Affix Hopping cannot be done by lowering but raising. However, this is theoretically impossible, as far as I know. Since the analysis shown in (i) is problematic for many reasons, I have not discussed it in this section.

[189] Remember that Agbayani and Zoerner's (2004) sideward movement analysis of English gapping assumes low-coordination (cf. § 2.2.2).

According to this author, the gapping sentence in (32) has the following derivation steps. First, the lexical verb of the first conjunct undergoes sideward movement to the second conjunct, forming a VP (34).[190]

(34)

$$
\begin{array}{ccccc}
 & \text{VP} & & & \\
 & \diagup \;\; \diagdown & & & \\
\text{Obj} & \;\; \text{V}^i & & \text{Obj} & \text{V}^i \\
\end{array}
$$
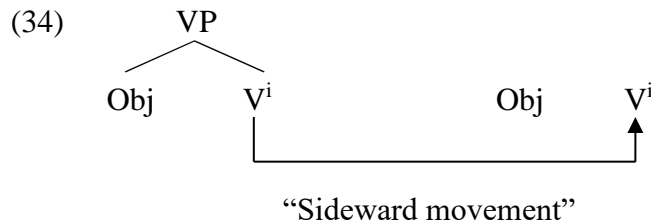
"Sideward movement"

The derivation continues. The VP of the first conjunct merges with T°, creating a TP. At this point of the derivation, as there is only one instance of T° in the numeration, T° will undergo sideward movement from the first conjunct to the second where it merges with the VP, forming a TP. And then the verb undergoes movement to T° in each conjunct (35), assuming crucially that Korean has syntactic verb movement (Otani and Whitman 1991; Park 1992; Cho 1994; Yi 1994; Choi 1999; Koizumi 2000, a.o.).

(35)

$$
\begin{array}{cccccc}
 & \text{TP}_1 & & & \text{TP}_2 & \\
 & \diagup \;\; \diagdown & & & \diagup \;\; \diagdown & \\
\text{VP}_1 & & \text{T}^j & \text{VP}_2 & & \text{T}^j \\
\diagup \; \diagdown & & & \diagup \; \diagdown & & \\
\text{Obj} & \text{V}^i & & \text{Obj} & \text{V}^i & \\
\end{array}
$$
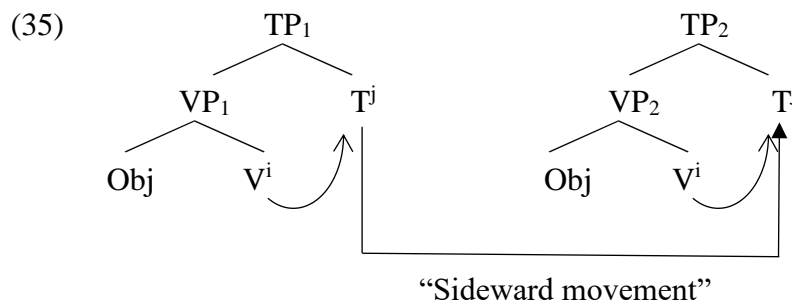
"Sideward movement"

Following Nunes (2001: 337, (88-89)) who argues that T° is copied from one conjunct into the other in constructions involving ATB-extraction, Jung proposes that in Korean gapping,

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[190] A note on the directionality of sideward movement is in order. As shown above, in a head-final language like Korean, the verb of the first conjunct undergoes sideward movement to the second conjunct, contrary to what happens in English, which is head-initial language. Hornstein and Nunes states that sideward movement takes place from more embedded (clauses) to less embedded (clauses) in relation to economy principle they assume. According to this directionality of sideward movement, in parasitic gap constructions, for example, the object DP undergoes sideward movement from the adjunct clause to the matrix clause. If this constraint applies to English gapping, Agbayani and Zoerner (2004) must submit that the second conjunct is more embedded than the first. Although it is tricky in a sense that sideward movement is based on coordination by adjunction, it can be understood that the conjunct which is adjoined to the other is more embedded. Otherwise, there will be no restriction on the directionality of sideward movement, in particular in coordinate structures observed in gapping. Jung assumes this premise for his analysis of Korean gapping in terms of sideward movement, where he proposes that the verb of the first conjunct undergoes sideward movement to the second because the former will be adjoined to the latter at the later stage of derivation, and not vice versa.

along with V° and v°, T° also undergoes sideward movement from one conjunct to the other. Although Nunes himself does not provide a precise motivation for sideward movement of T°, Jung states that copying of T° in coordinate structures might be either due to the Parallelism Requirement (PR) or the more natural assumption that any VP needs a tense (specification).[191]

Next, before the two TP-conjuncts in (35) get merged to form a coordinate structure (i.e. TP-coordination), the verbal complex [V°(-v°)-T°] of the second conjunct undergoes head-movement to C°, as illustrated in (36).[192]

(36)
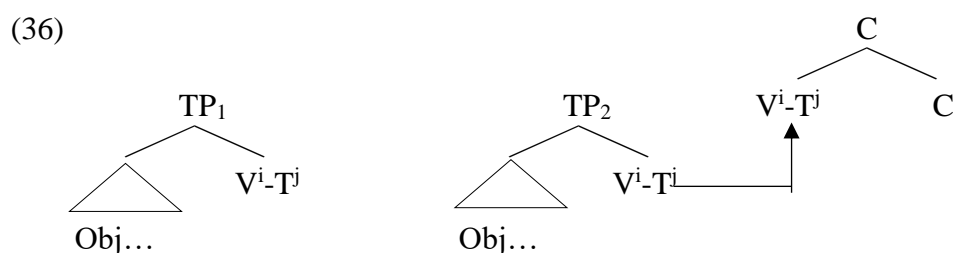
Finally, when Copy Deletion applies to Chain$_1$ (i.e. {[V^i-T^j] in TP$_1$ and [V^i-T^j] in C°}) and Chain$_2$ (i.e. {[V^i-T^j] in TP$_2$ and [V^i-T^j] in C°}), the two lower copies contained in the vP-coordination are deleted, and only the highest one in C° is pronounced at PF (37).

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[191] Hornstein and Nunes (2002) suggest that the PR may be treated as a bare output condition like legibility condition imposed by the Conceptual-Intentional interface on the interpretation of coordinate structures. Like the Last Resort operation which restricts copying to only cases where the formal feature checking requirements need to be satisfied, they argue that the PR may also license applications of the operation Copy; copying XP in coordinate structures is motivated by the PR, not by the Last Resort operation; i.e. the motivation of copying is not by formal feature checking in a strict sense.

[192] Note that this verb movement must be understood as another instance of sideward movement because there is no embedding at that point of the derivation where the verb of the second conjunct undergoes head-movement to T°. This is a crucial part of Jung's analysis. Here one might wonder whether it is possible for the whole 'V-T' complex to undergo upward movement to C°. Jung explains that this is possible if we assume that verbal affixes in Korean are clitic-like elements. In Dotlačil (2008), for example, it has been proposed that in Polish ATB-constructions with one occurrence of clitic, the Aux-Cl complex upward-moves outside the TP-coordination after being sideward-moved in earlier derivational steps. Similarly, Jung argues that the verbal complex 'V-T' also can further move if it is attracted by some feature of higher functional heads.

(37)

```
                          CP
                          |
                          C´
                   _____/ _____
                  TP              C
            ____/ | \____          |
           TP  kuliko  TP      Vⁱ-Tʲ-C
        __/ \__      __/ \__
   John-un   T´  Mary-nun   T´
          __/ \__        __/ \__
        VP    V̶ⁱ-T̶ʲ    VP    V̶ⁱ-T̶ʲ
      _/ \_          _/ \_
  pang-ul  V̶ⁱ    bap-ul   V̶ⁱ
```

"T-to-C movement by sideward movement"

"Sideward movement"
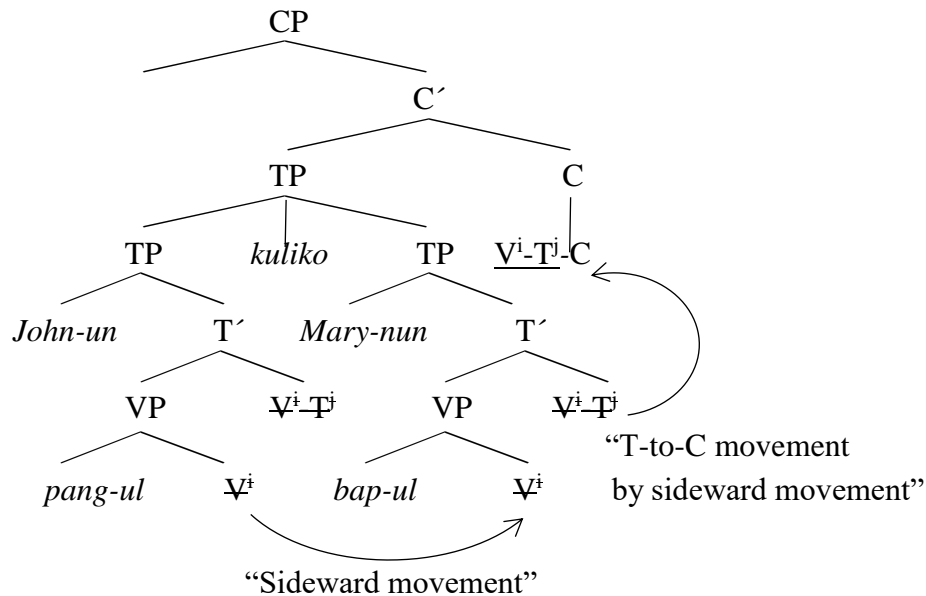
(Jung 2012: 25, (47))

Among other things, as this analysis involves high-coordination, it can easily explain both Case assignment and φ-feature valuation without appealing to the Multiple Agree (or "Sharing"), which was assumed in other types of low-coordination analyses.

In addition, the sideward movement shown in (37) circumvents movement operations in violation of the CSC. This is because sideward movement of the verb takes place before one conjunct merges with the other, the verb undergoing sideward movement does not cross any node that contains a coordinate structure. Note that 'T-to-C' movement in (36) is also able to circumvent the CSC because the first conjunct is not yet merged with the second at the point at which the verbal complex of the second conjunct undergoes head-movement to C°. Note also that, contrary to Agbayani and Zoerner who remain silent for verb movement in violation of the CSC, Timing of Merge to form a coordinate structure is a crucial ingredient of Jung's analysis; in particular to license verb movement without violating the CSC. Under the sideward movement analysis of Korean gapping, note further that, as expected, we can support a strict identity between the non-gapped clause and the gapped clause. This is because the missing verbal material is a non-distinct copy of V^i, which sideward-moves from one conjunct to the other; i.e. the identity calculates the V^i of the first conjunct and the V^i of the second conjunct. Thus, under this kind of analysis there will be no situation where an item V^i in the first conjunct and the other item V^j of the second

conjunct are computed for identity.[193] The same can be said for Tº, providing the reason why the tense specification of both conjuncts must be the same in gapping: because there is only one functional item Tº in the numeration.

However, the analysis in (37), as it stands, cannot account for the wide-scope reading of negation because each conjunct is a TP which contains its own NegP.[194]

For that reading, Jung might have recourse to another possibility of sideward movement; namely under low-coordination, just like Agbayani and Zoerner (2004). If so, the wide-scope reading in (38ii) could be obtained from the derivation shown in (39).

(38) John-un pang-ul   ___, kuliko Mary-nun bap-ul   mek-ci ani-*ha*-ess-ta.
      John-TOP bread-ACC   and   Mary-TOP rice-ACC eat-CI   NEG-do-PST-DEC
      (i) 'John didn't eat bread and Mary didn't eat rice'
      (ii) 'It is not the case that John ate bread and Mary ate rice'

---

[193] For voice mismatches in gapping (Stump 1977; Johnson 1996/2004; Citko 2012), sideward movement analysis may suggest that vº also undergoes sideward movement from one conjunct to the other, along with Vº. Given this scenario, voice mismatches are also expected because a non-distinct vº is involved in the sideward movement derivation, assuming that the vº is responsible for voice (specifications). Although this consequence of sideward movement of vº is interesting for non-voice mismatches in gapping, I will not further explore the issue in this dissertation.

[194] Remember that in Korean, a NegP is always generated below the TP. For the wide-scope reading, Jung (2012: 30) assumes that the wide-scope reading of negation is obtained from a sideward movement derivation in which the whole verbal complex [*mek-ci*V *an*NEG-*ha-ess*T] undergoes movement to Cº. However, I see that this derivation is cannot be tenable since the verbal complex under consideration is unmovable in many aspects (see Chung 2012); e.g., it cannot form a head eligible to undergo movement to Cº. Thus, we can reasonably discard this possibility of movement.

(39)

"Sideward movement"

"'V-to-T' movement
by sideward movement"
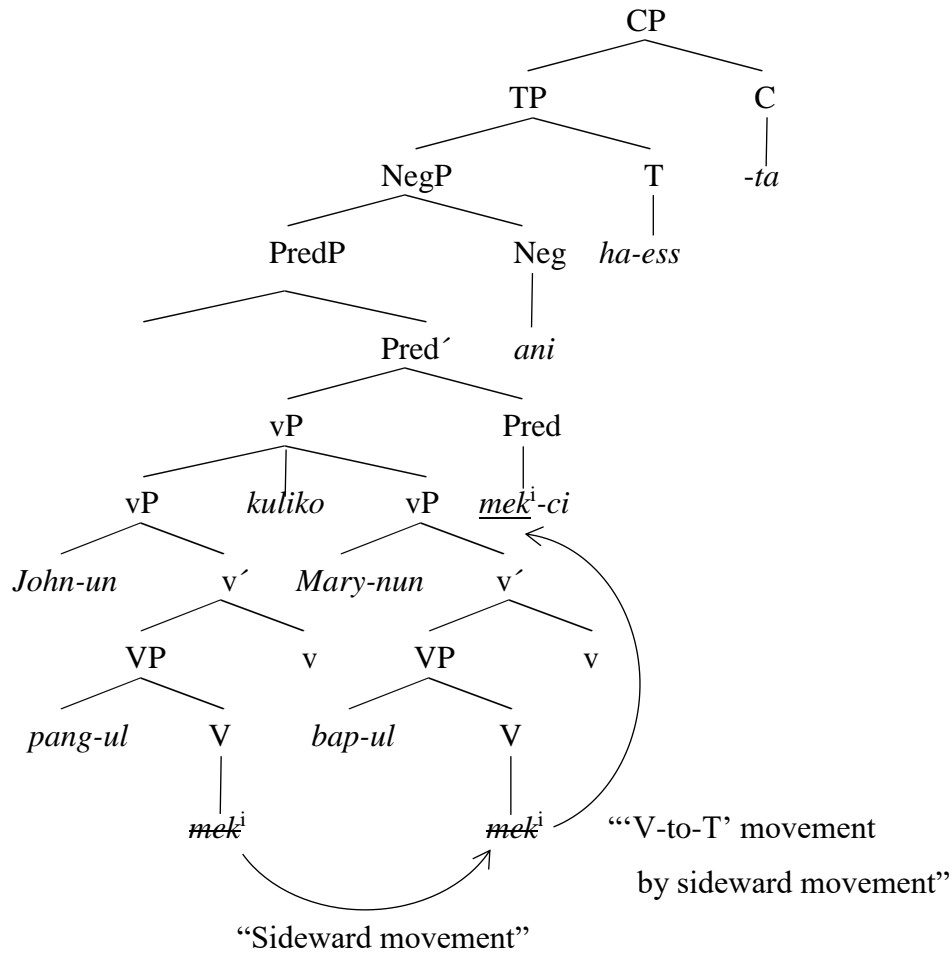
In (39), other things being equal, the same operations apply to the derivation of the wide-scope reading in (38ii). The crucial difference between (37) and (39) is that in the latter, before the two VP-conjuncts are merged to form a coordination, the lexical verb of the second conjunct undergoes head-movement to T°, as shown in (40).

(40)
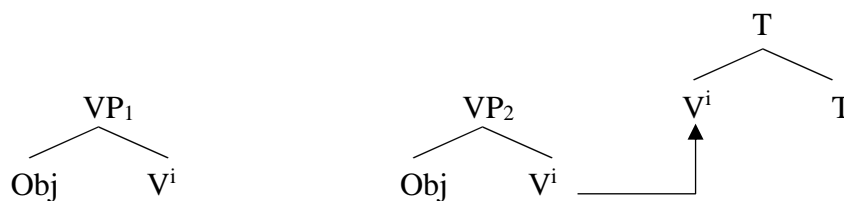
However, there are some problems with Jung's sideward movement analysis.

Notice first that it is crucial for Jung's analysis to assume syntactic verb movement in Korean. However, as mentioned before, this assumption creates problems for movement-based analyses because it wrongly predicts that Korean speakers of non-V-raising grammar

proposed by Han *et al* (2007, 2016) should not allow gapping sentences like (32), contrary to fact: every Korean speaker allows gapping without problem.

Furthermore, the structure in (37) cannot account for complex gaps. The reason is that, as discussed in detail in § 2.2.2, sideward movement of VP (or vP) is not possible for independent reasons, though at first glance one might motivate such kind of movement by saying that v° requires a VP (or T° needs a vP). Let us see why this cannot be the case.

To derive the complex gap shown in (41), Jung's analysis must state that the vP of the first conjunct sideward moves to the second to merge with T°. For this operation to be possible, first the arguments (i.e. both the subject and the object) of the verb must be moved out of the vP, after which the (lower) vP undergoes sideward movement, as illustrated in (42).

(41) John-i   chayk-ul ___ ___, kuliko Bill-i   CD-lul   Sue-eykey cwu-ess-e.
     John-NOM book-ACC   and   Bill-NOM CD-ACC Sue-DAT   give-PAST-DEC
     'John ~~gave~~ a book ~~to Sue~~, and Bill gave a CD to Sue'

(42)

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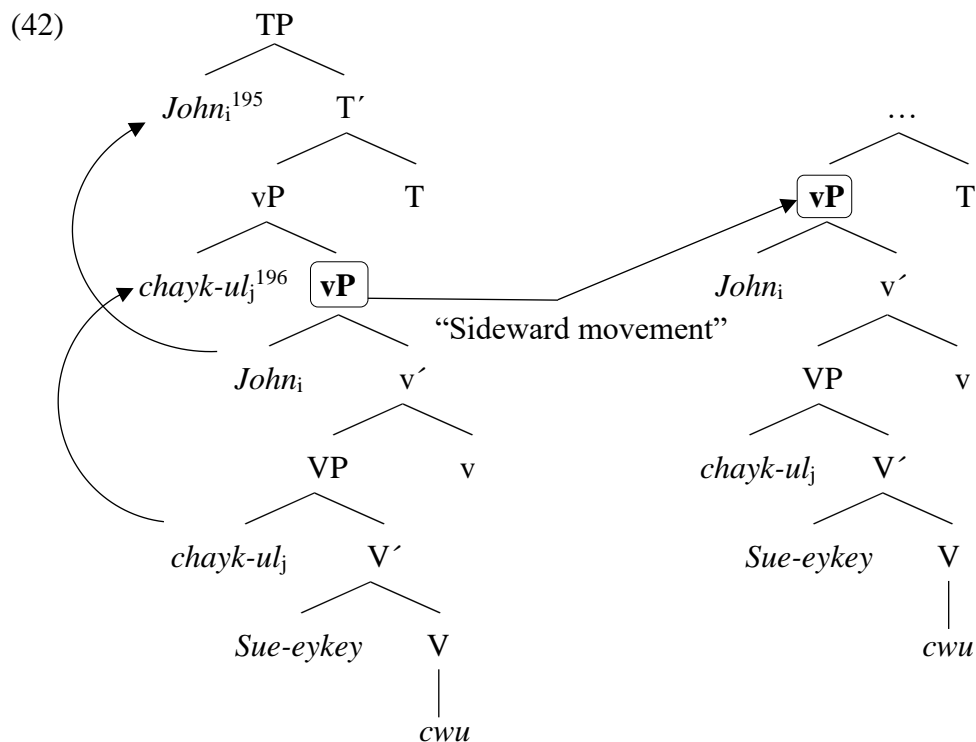
[195] For presentational purposes, I have assumed that the subject remnant undergoes movement to [Spec,TP]. Nothing hinges on this assumption; e.g., we have the same result even if the subject undergoes A'-movement to a position above the dislocated object.

[196] Whether the object remnant is left-adjoined or right-adjoined to the vP is immaterial for the argumentation of the text.

This derivation, however, does not produce the output in (41). The reason for the failure of the derivation has to do with the copies of the remnants that have undergone movement prior to vP-sideward movement. Notice that there cannot be traces but copies because Jung's analysis, as well as any other analysis with sideward movement, crucially assumes the Copy Theory of Movement. Accordingly, if sideward movement of the verb (or VP) is copying, so it should be for NP-movements. In addition, even if the remnants in the first conjunct somehow leave traces and the derivation continues, we will face another problem that both the subject *Bill* and the object *CD* (in (41)) remain in the numeration without being merged with the verb, and thus the derivation will not converge. All things considered, sideward movement of vP (or VP) results in many problematic consequences.

Nevertheless, Jung claims that such VP-movement does not have to be assumed for his analysis because in languages like Japanese and Korean (as well as Malayalam and Turkish to a certain extent), there is another sort of deletion mechanism, namely AE (Oku 1998; Kim 1999; Saito 2004, 2007; Takahashi 2008, 2013, 2014; Şener and Takahashi 2010; Sakamoto 2015, 2016, a.o.), which is available in their grammars and thus can be reasonably assumed for the missing nominals, independently from sideward movement of the verb. In short, Jung argues that complex gaps can be analyzed as a combination of sideward movement of the verb and AE, thus disregarding such a problematic vP-sideward movement.[197]

However, it is not clear whether this solution can also elucidate data like (43) in which the VP/vP-adverbial *manhi* 'much' is also missing along with the verbal complex of the first conjunct.

(43) John-un pang-ul ___ ___, kuliko Mary-nun bap-ul manhi mek-ess-ta.
      John-TOP bread-ACC   and   Mary-TOP rice-ACC much   eat-PST-DEC
      'John ~~ate~~ bread ~~much~~, and Mary ate rice much'

This is because the adverbial *manhi* is not argument but adjunct, so that it is not plausible to analyze it in terms of AE. There is good evidence to show that the ellipsis of *manhi*

---

[197] In the literature, some authors like Lee and Kim (2010), Park and Bae (2012), and Part and Oh (2013) have shown that not all instances of null arguments attested in Korean are the consequences of AE; i.e. sometimes they are *pro*, and sometimes they are instances of AE. Even if they are right in re-identifying null arguments in Korean in such a way, Jung's analysis will be intact because for complex gaps, he might assume *pro* instead of AE.

cannot be the result of AE. In Korean, adverbials such as *manhi* 'much' and *chokum* 'a little bit' cannot be elided in other contexts, as shown in (44).[198]

(44)   A: Pang *manhi/chokum*   mek-ess-ni?
              bread much/a little bit eat-PAST-Q
              'Did you eat much/a little bit bread'
       B1:   (pang) manhi/chokum   mek-ess-e.
              (bread) much/a little bit eat-PAST-DEC
              'I ate (bread) much/a little bit'
       B2:   *(manhi/chokum) mek-ess-e.
              *(much/a little bit) eat-PAST-DEC
              'I ate (bread) *(much/a little bit)'

The contrast between (44B1) and (44B2) shows that adverbials cannot be elided by way of AE, contrary to what happened with arguments. Thus, the missing adverbial in the first conjunct of (43) is not the consequence of AE.[199] In summary, if the complex gaps cannot be analyzed by means of either sideward movement of vP or AE, we can conclude that Jung's analysis with sideward movement plus AE is limited only to complex gaps involving arguments. As will be shown in the next section, my analysis of Korean gapping does not have a problem with complex gaps like (41) and (43) because the gap, regardless of being complex or not, is the result of eliding everything but the contrastive materials that stay in-situ.

As an alternative to movement approaches to Korean gapping, Chung (2004) proposes a Multidominance analysis. He follows Wilder's (1999) analysis of English RNR and argues that in Korean, an ellipsis sentence like (45) can be analyzed in a similar

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[198] As mentioned before, these adverbs have other meanings of *often* and *seldom*, respectively. But this does not affect the argumentation of the text.
[199] This asymmetry is somewhat unexpected if AE is an operation that simply targets any element inside the VP/vP (see § 4.2.2). I will leave for future research why this kind of asymmetry happens between arguments and adjuncts in contexts of ellipsis.

way.[200,201] The leading idea of Chung is that the gap of the first conjunct in (45) is nothing more than the result of a circumstance where two VP-conjuncts multiply dominate a single V°, as shown in (46).[202]

(45) John-un   pang-ul   ___, kuliko Mary-nun bap-ul   mek-ess-ta.
      John-TOP bread-ACC   and   Mary-TOP rice-ACC eat-PST-DEC
      'John ~~ate~~ bread, and Mary ate rice'

(46)

(Adapted from Chung 2004)

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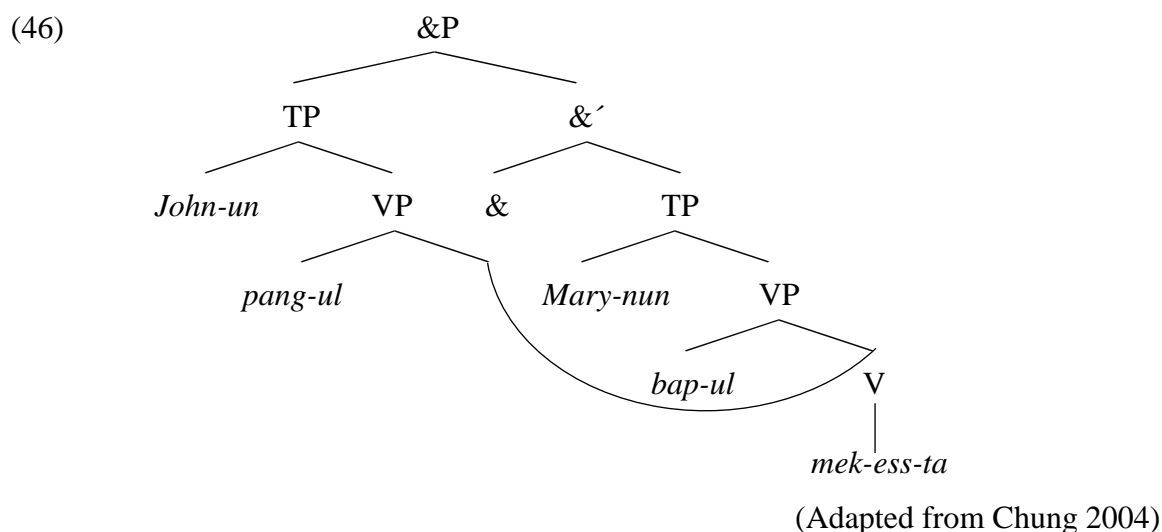
[200] In reality, the author considers (45) as an instance of RNR in Korean: because the elided material is located at the final position of the non-final conjunct, just like English RNR. However, if we consider the categorical nature (i.e. [+V]) of the missing portion, (45) can be viewed as an instance of gapping. If (45) were an instance of RNR, it should display characteristics of RNR observed in other languages. But the Korean example in question has properties that do not definitely designate it as RNR (or gapping). For instance, the wide-scope reading of negation (cf. § 2.3) is not a characteristic of RNR but of gapping. More importantly, there is no such thing like V-RNR in natural language. Along with DP-RNR, what is known as RNR containing the [+V] category is an instance of VP-RNR attested in languages like English, German, and Chinese. However, as noted by Lee and Lee (2007: 234), whether (45) is an instance of gapping or RNR in Korean still waits to be explored in a detailed way. In this dissertation, I will not discuss further the issue and I will continue to assume that the sentence in (45) is an instance of gapping in Korean.

[201] Ha (2006, 2007, 2008) also considers (45) as an instance of RNR. According to this author, it is derived by PF-deletion of V°. This author assumes Merchant's [E]-feature and proposes that the object DP bears the [E]-feature to elide the verb, giving rise to an instance of Korean RNR where the verb of the first conjunct is missing. However, this analysis, as it stands, cannot be tenable by various reasons. First, a DP cannot bear the [E]-feature to begin with because it is not a functional head (Lobeck 1990, 1991, 1995, 1999). Second, if it is right that the [E]-feature instructs its complement to be deleted at PF, then it does not make sense that the [E]-feature encoded in a DP instructs the verb to be deleted at PF because it is not the complement of the object DP. Therefore, Ha's analysis is conceptually problematic and I will not discuss this kind of analysis in this dissertation.
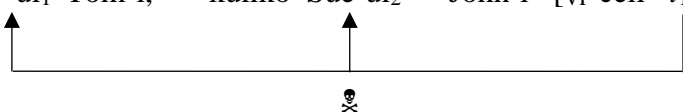
[202] I am representing the structure, just as it was originally given in Chung (2004) since he does not provide detailed Multidominance structure of the sentence in question.

Notice that this analysis is too sketchy and leaves a number of issues undiscussed. For example, nothing is specified with regard to other functional categories in the first conjunct; as the structure in (46) involves high-coordination and Multidominance of V, it should be the case that both T° and v° are also multidominated.[203] Otherwise, the configuration in (46) illustrates that both T° and v° in the first conjunct are stranded at PF. However, we know that this cannot be the case, considering Lasnik's (1981) SAF for bound morphemes.

There are cases where Multidominance causes problems for the analysis of Korean gapping. For instance, as claimed by Chung and Sohn (2007), if a single V° is indeed shared by two distinct VPs, as in (46), we cannot account for scrambling facts in (47).

(47) Mary-ul   Tom-i,   kuliko Sue-ul   John-i   ceil   choanae.
      Mary-ACC Tom-NOM and   Sue-ACC John-NOM the best likes
      (Lit.) "Mary, Tom ~~likes the best~~, and Sue, Mary likes the best"

<div align="right">(Chung and Sohn 2007: 203, (86a)</div>

The reason why this is problematic is clear because, under any sort of Multidominance analysis, it is impossible to think of situations where two distinct objects start movement operation from one single syntactic position; namely [Compl,VP], as illustrated in (48).

(48) Mary-ul$_1$ Tom-i,   kuliko Sue-ul$_2$ John-i [$_{VP}$ ceil $t_{1/2}$ choahnta].

<div align="right">(Chung and Sohn 2007: 203, (86a´)</div>

As easily noticed from this representation, there leaves no room for doubt that such kind of movement is possible in natural languages.

The most serious problem is that the analysis shown in (46), as it stands, cannot explain complex gaps, which Chung himself does not even mention in his work. At best, under a Multidominance analysis, the complex gap in (49) would have a derivation like (50) where both the lexical verb and the indirect object are shared by the two conjuncts.[204]

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[203] Citko (2012) proposes that both v° and V° must be shared by the conjuncts of English gapping precisely due to the category-less root nature of V° (cf. § 2.2.2).

[204] The precise derivation of DOCs is immaterial for my discussion of the text. For presentational purposes, I just assume a 'Larsonian' VP-shell structure for Korean DOCs.

(49) John-un   CD-lul   ___ ___, kuliko
      John-TOP CD-ACC   and

      Bill-un   chayk-ul   Susan-eykey   cwu-ess-e.
      Bill-TOP book-ACC   Susan-DAT   give-PAST-DEC

      'John ~~gave Mary~~ a CD, and Bill gave Susan a book'

(50) …
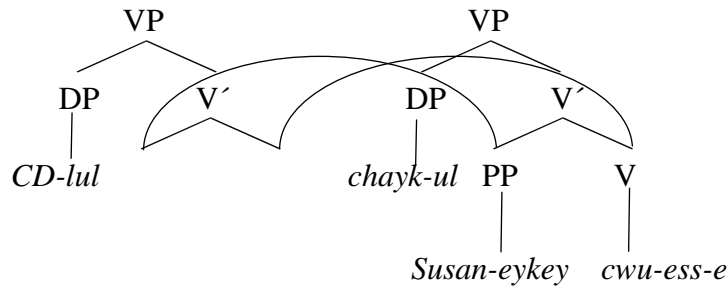
However, the main problem of this derivation is that the linearization of the terminals is impossible, assuming Wilder's modified version of LCA.[205]

Alternatively, one might claim that the sentence in (49) has the derivation in (51) where all thing being equal, a null object *pro* is assumed in the first conjunct, given that Korean is known to have null objects constructions.

(51) …
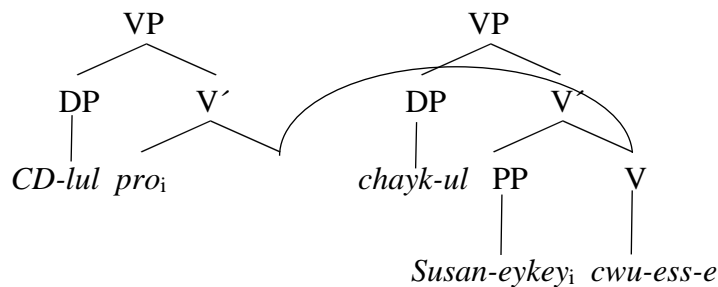
A configuration like this, however, cannot be correct for null object languages like Korean. This is because, as mentioned before, backward *pro* is not possible in Korean coordinate structures (cf. (22)). Thus, the representation in (51) cannot be correct for the example in (49). As both sharing of PP (in (50)) and backward *pro* (in (51)) turn out to be impossible

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[205] Of course, Kayne's (1994) original LCA is inapplicable to head-final languages like Korean due to the 'Spec-Head-Comp' order assumed in his algorithm of linearization.

for independent reasons, it is reasonable to conclude that Chung's Multidominance analysis has no way to account for complex gaps.[206]

4.2. The non-unity of Korean Gapping

Throughout chapter 3, I have argued that there are indeed two types of gapping in Spanish, and each type involves a different source from either low-coordination or high-coordination. I have claimed that this heterogenous approach to gapping can account for more of the observable properties than did any previous analysis. For instance, it explains scope facts in a principled way: a key problem with much of the literature on only one single type of coordination is that it leaves one of the two scope readings unaccounted for. Furthermore, I have also shown that there are several instances of Spanish gapping involving various syntactic phenomena such as cumulative agreement, CLLD, and topicalization, which can be explained by only either low-coordination or high-coordination.

This chapter is an extension of my proposal developed in § 3.2.2, and I will reinforce the hypothesis on the non-unity of gapping, showing this time that gapping in Korean is also an epiphenomenon of more than one derivation.

Let us start with the example given in (52), where the gap appears in the first conjunct, and the antecedent, in the second conjunct.

(52) John-i   sakwa-lul ___, kuliko na-nun Mary-ka   orange-lul   mek-ess-ta-ko
     John-NOM apple-ACC   and   I-TOP   Mary-NOM orange-ACC eat-PAST-DEC-that

---

[206] Chung's analysis also faces the difficulties when attempting to account for data like (30), repeated in (i), where the complex gap involves an adverbial (instead of an argument).

(i)   John-un   pang-ul   ___ ___, kuliko Mary-nun bap-ul   manhi   mek-ess-ta.
        John-TOP bread-ACC   and   Mary-TOP rice-ACC much   eat-PAST-DEC
        'John ~~ate~~ bread ~~much~~, and Mary ate rice much'

In this example, the VP/vP-adverbial *manhi* 'much', which appears only in the second conjunct, must be contained within the interpretation of the first conjunct, as indicated by the English translation. To begin with, it is not possible to assume a *pro* for adverbials (see Takita 2011 for an explanation on the impossible ellipses of some adverbials in Japanese). Thus, a Multidominance analysis like (46) might want to claim that *manhi* to be shared by the two VP-conjuncts, more concretely V'-sharing rather than V-sharing. However, as claimed in § 2.2.2, sharing of an intermediate projection is theoretically not possible if we follow that only X^{max} and X^{min} can be shared by two (or more) conjuncts (see Citko 2005, 2014 for more details on this theoretical claim). In addition, we have seen that adverbials, regardless of being instance of V'-sharing or not, cannot be elided in other Korean ellipsis contexts (cf. (44)).

sangkakha-e.

think-DEC

'John ~~ate~~ an apple, and I think that Mary ate an orange'

This sentence can be interpreted only as *John ate an apple, and I think that Mary ate an orange*, and not *(I think that) John ate an apple, and I think that Mary ate an orange*.[207] Importantly, the sentence in (52) does not have the same meaning as (53); i.e. the latter must be interpreted as (54), which involves an overt matrix subject *na-nun* 'I-TOP'. Accordingly, the interpretation of (53) is corresponding to *(I think) that John ate an apple, and that Mary ate an orange*.

(53) John-i   sakwa-lul ___, kuliko Mary-ka   orange-lul mek-ess-ta-ko
      John-NOM apple-ACC   and   Mary-NOM orange-ACC eat-PAST-DEC-that
      sangkakha-e.
      think-DEC
      '~~I~~ think that John ~~ate~~ an apple and Mary ate an orange'

(54) Na-nun John-i   sakwa-lul ___, kuliko Mary-ka   orange-lul mek-ess-ta-ko
      I-TOP   John-NOM apple-ACC   and   Mary-NOM orange-ACC eat-PAST-DEC-that
      sangkakha-e.
      think-DEC
      'I think that John ~~ate~~ an apple and (that) Mary ate an orange'

Thus, we can confirm that the example in (52) clearly involves an embedded antecedent. This means that the gapping sentence under discussion is not subject to the "No-Embedding Constraint" (Hankamer 1979; Johnson 2014) and thus does not involve low-coordination, given that such constraint is claimed to be the result of the syntax of low-coordination (Johnson 1996/2004, 2009, 2014).

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[207] This example is understood as a reverse case of Persian gapping in (i) (cf. § 3.2.1), where the matrix verb *fekr* 'thought' does not scope over the second conjunct, as indicated by the English translation.

(2)   Fekr   mi-kon-am   [ke Ânâhitâ châyi=ro <u>xord</u>]   vali Giti qahva=ro ___.
      thought IMPF-do.PRES-1SG that Annahita tea=ACC eat.PAST.3SG but Giti coffee=ACC
      'I think that Annahita drank tea, but Giti ~~drank~~ coffee'

(Farudi 2013: 84)

Furthermore, Korean allows gapping sentences of the sort illustrated in (55), where, as indicated by strikethrough in the English translation, the first conjunct involves an even more complex missing portion; namely the matrix verb and the embedded verb including the complementizer.

(55)   Na-nun John-i   sakwa-lul ___ ___, kuliko Bill-nun Mary-ka   orange-lul
       I-TOP   John-NOM apple-ACC   and   Bill-TOP Mary-NOM orange-ACC
       mek-ess-ta-ko   sangkakha-e.
       eat-PAST-DEC-that think-DEC
       'I ~~think that~~ John ~~ate~~ an apple, and Bill thinks that Mary ate an orange'

Therefore, examples like these must involve high-coordination that makes both the matrix and the embedded verbs available in each conjunct; otherwise, there is no way to correctly interpret that kind of complex gap of the first conjunct.

As mentioned before (cf. § 4.1.1), Kim (2007: 88-90) notes that the missing portion of the gapping sentence in (56a) can be either the underlined material in (56b) or (56c).

(56) a. John-i   sakwa-lul ___ kuliko Mary-ka   orange-lul   mek-ess-e.
         John-NOM apple-ACC   and   Mary-NOM orange-ACC eat-PAST-DEC
         'John ~~ate~~ an apple, and Mary ate an orange'
    b. John-i   sakwa-lul <u>mek-ko</u> kuliko Mary-ka   orange-lul   mek-ess-e.
         John-NOM apple-ACC eat-KO   and   Mary-NOM orange-ACC eat-PAST-DEC
         'John {ate/*eats/*is eating/*will eat} an apple, and Mary ate an orange'
    c. John-i   sakwa-lul <u>mek-ess-ko</u>, kuliko Mary-ka   orange-lul   mek-ess-e.
         John-NOM apple-ACC eat-PAST-KO and   Mary-NOM orange-ACC eat-PAST-DEC
         'John ate an apple, and Mary ate an orange'

What is of interest to us is that in (56b), the verbal complex of the first conjunct must be interpreted as past event, though it does not bear overt past tense marker –*ess*.

To explain this fact, it has been claimed that the temporal interpretation of tenseless non-final conjuncts is determined either by the tense of the final conjunct (Yoon 1994, 1997; Hirata 2006) or by introducing a zero-tense morpheme or the coordination marker (Chung 2001, 2003, 2005; Nakatani 2004). As mentioned in § 4.1.1, Chung (2001, 2003, 2005)

proposes that the first conjunct of the sentence in (56b) is not vP and involves a null T°, so that there is no difference at all between the sentence in (56b) and the one in (56c).

However, Jung (2015) calls this proposal into question by claiming that it is not clear why in Korean, such a null T° is available only for past tense in coordination. He points out that postulating a null T° in (56b) does not explain why a simple sentence like (57a) can never be interpreted as past event, even though one might, following Chung's analysis, assume a null T° therein (57b).

(57) a.   John-i   sakwa-lul mek-e.
             John-NOM apple-ACC eat-DEC
             'John {eats/*ate} apple'
      b.   …   [[*mek*_V-Ø_T]-*e*]

Thus, it is hard to believe that the first conjunct of (56b) indeed contains a null T°, unless a plausible explanation is provided for the impossibility of a configuration like (57b) for the simple sentence in (57a). Once such a null T°-analysis is rebutted in this way, we can then assume that the gapping sentence in (56a) can be derived from either (56b) or (56c), in line with Kim's claim mentioned above. That is, if the first conjunct of (56b) is a vP and thus lacks its own T°-projection, then, the gapping sentence in (56a) involves a low-coordination like (56b), which is noticeably different from (56c) where the first conjunct is undoubtedly a TP due to the presence of overt past tense morpheme –*ess*.

If this kind of reasoning is on the right track, we can therefore conclude that gapping in Korean can have either low-coordination or high-coordination.

More importantly, as noted by Lee (2005), gapping in Korean allows both the wide-scope and the narrow-scope readings of negation, as shown in (58).

(58) John-i   sakwa-lul ___ kuliko Mary-ka   orange-lul   mek-ci ani-ha-ess-e.
      John-NOM apple-ACC   and   Mary-NOM orange-ACC eat-CI NEG-do-PAST-DEC
      (i) 'John didn't eat apple, and Mary didn't eat orange'
      (ii) 'It wasn't the case that John ate apple and Mary ate orange'

In addition, what is crucial for my proposal on two types of Korean gapping is that it is not difficult to find gapping sentences like (59) where the wide-scope reading in (59ii) is highly degraded and only the narrow-scope reading in (59i) is acceptable.[208]

(59) John-un sakwa-lul ___, kuliko Mary-nun orange-lul   mek-ci ani-ha-ess-e.
      John-TOP apple-ACC   and   Mary-TOP orange-ACC eat-CI NEG-do-PAST-DEC
      (i) 'John didn't eat apple, and Mary didn't eat orange'
      (ii) [??]'It wasn't the case that John ate apple and Mary ate orange'

Thus, the derivation of (59) cannot be the one proposed for the sentence in (58) with the wide-scope reading.

All in all, as discussed in § 3.2, the two scope readings in gapping must arise from two different structures, considering that semantic interpretations come from only syntactic structures, as usually assumed in the literature since Chomsky (1965).

On the surface, the crucial difference between (58) and (59) lies in the fact that in the former, the subjects of both conjuncts are NOM Case-marked, whereas in the latter, they are Topic-marked along with a substantial prosodic break between the two conjuncts. Although this contrast is clear and robust for native speakers including myself, it has not been addressed in the previous literature. As the existence of the contrast between (58) and (59) is undeniable for scope facts in Korean gapping, I will take it as a starting point of the discussion in the following sections.

To account for the contrast under discussion, I will assume that in languages like Korean, Topic-marked subjects must be located outside the vPs (60a) (see Choe 1995; Lee 2008; Vermuelen 2013, a.o.), whereas NOM Case-marked subjects can be situated inside the vPs (60b).[209]

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[208] This is confirmed by native speakers to have narrow-scope reading more easily than the wide-scope one.
[209] Similarly, Topic-marked elements (e.g. 'XP-*wa*') in Japanese have been argued to be in left-peripheral positions (Kuno 1973). Whitman (1989, 2001) and Kishimoto (2009) also propose that Japanese subjects-*wa* occupy the heads of the functional projections at the left-periphery. Thus, the assumption I have taken in the text is not at all unusual.

(60) a.   XP (=TopP or TP)   b.   XP (=TopP or TP)

    DP_{TOP}[210]   X´   DP_{NOM}   X´

        X   vP   X   vP

        *DP_{TOP}   …   DP_{NOM}   …
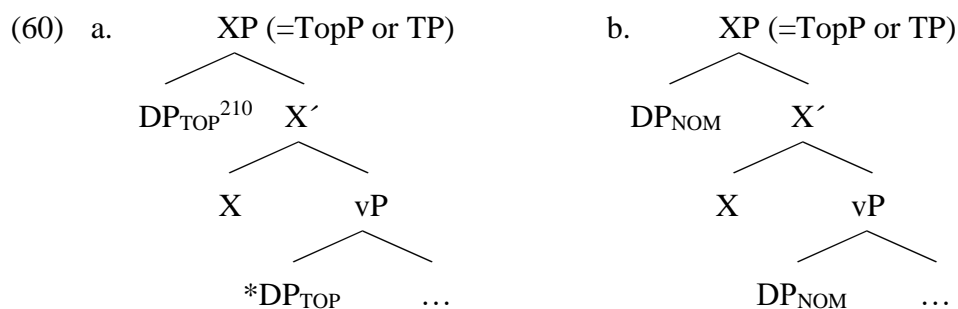
As for the structure in (60b), following Park (1994), I will also assume that Case-marked subjects do not (necessarily) raise to [Spec,TP] due to the week EPP in languages like Korean (and Japanese). In this case, subject movement is not Case-driven anymore if we assume the Agree system (Chomsky 2000, 2001), and the NOM Case-marked subjects may raise to the specifier position of some functional projection to provide the (contrastive) focus reading (Choe 1995). In any case, what is crucial for the two structures given in (60) is the difference inside the vP between the Topic-marked and the Case-marked subjects. Soon after, we will discuss in detail the different syntactic positions of the NOM Case-marked subjects and their consequences for the analysis of Korean gapping.

Given this distinction, we are now in a position to consider the contrast in scope interpretations between the sentence in (58) and the one in (59).

4.2.1.   Low-coordination gapping

Regarding the wide-scope reading in (58ii), on the one hand, I propose that the sentence involves low-coordination where the Case-marked subjects of both conjuncts appear inside the vPs, as shown in (61). In so doing, the negation generated above the vP-coordination will c-command both vP-conjuncts, yielding the wide-scope reading.

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[210] Whether the Topic-marked subject is moved or base-generated here is not crucial for my discussion of the text (see a.o. Choe 1995 and Vermuelen 2013 for the base-generation approaches to Topic-marked subjects, assuming that the coreferential *pro* is postulated inside the vP).

(61)
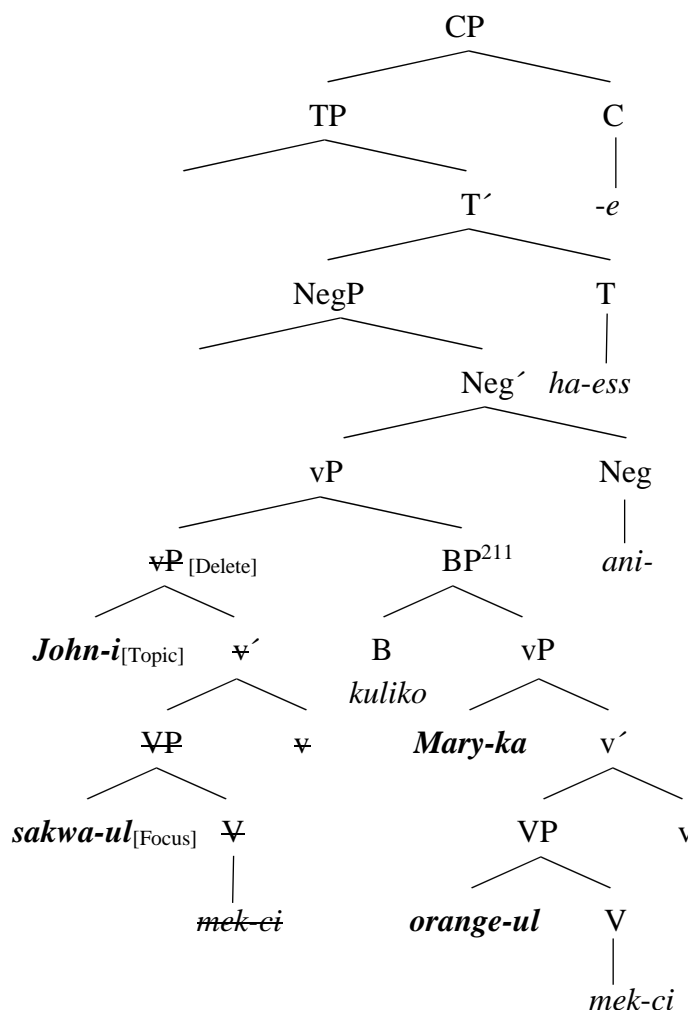
Some details on this analysis deserve to be mentioned in what follows.

As regards the subject of the first conjunct in (61), notice that being (contrastive) topic should not be confused with Topic-marking on the DPs. That is, nothing in principle prevents a Case-marked subject from being topic of a sentence from the point of view of information structure. In addition, I have assumed that subject movement to [Spec,TP] from the first conjunct is optional. Notice that this movement, when it occurs, does not violate the CSC because it is A-movement (cf. Johnson 1996/2004). Finally, I have assumed that, like other low-coordination analyses of gapping (cf. § 2.2.2), the subjects of both conjuncts are assigned NOM Case from one single T° via Multiple Agree (following Ura 1994, 1996;

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[211] As I have assumed in § 3.2.2.2, this is an adjunction of one conjunct to the other (*á la* Munn 1993), so that I am not assuming a head-initial structure of Korean coordination.

Hiraiwa 2001, 2005; Boeckx and Hornstein 2006; Henderson 2006, 2007; Nevins 2007, a.o.).[212]

In this configuration, one might wonder why in a low-coordination like (61) I have proposed the PF-deletion (rather than ATB-movement or PM) analysis. As discussed in § 3.2.2, Spanish gapping displays cumulative agreement on the verb, which is best analyzed in terms of ATB-movement under low-coordination. In contrast, my contention is that since Korean gapping does not exhibit instances similar to cumulative agreement, we do not need to postulate ATB-movement for low-coordination. As for the PF-deletion in this context, I suggest that, following the conception of ellipsis-as-NSO, deletion targets the maximal projection of the coordination involved in gapping. That is, when we have low-coordination, for example, the vP (and not VP) of the first conjunct is what is elided at PF since it is the maximal projection of the vP-coordination. Notice that the analysis shown in (61) implies that Korean could also exhibit other instances of VP/vP-deletion. However, as is well-known, Korean does not display English-type VPE. Accordingly, at first sight this seems to be problematic for my analysis in terms of vP-deletion. Having said that, I would like to note that the VP/vP-deletion strategy is not unfeasible in languages like Korean; i.e. at least some instances of the so-called "null adjuncts" (see Oku 1998 and Takahashi 2008) might be the result of VP/vP-deletion. Following Funakoshi (2016) who argues that languages like Japanese allows Verb-stranded VPE (VVPE) in contexts where there are null adjuncts of the type shown in (62), I suggest that a gapping sentence like (63) must be also analyzed in the way illustrated in (64).

(62) Bill-wa   teineini   kuruma-o arat-ta   kedo, John-wa ___ ___ araw-anak-atta.
      Bill-TOP carefully car-ACC   wash-PAST but   John-TOP   wash-NEG-PAST
      (intended) 'Bill washed the car carefully, but John didn't wash the car carefully'

(Funakoshi 2016, (16))

(63) Bill-i   cha-lul ___ ___ kuliko, John-i   jajeonkhu-lul
      Bill-NOM car-ACC   and   John-NOM bycicle-ACC

---

ppalli   unjeonha-ci ani-ha-ess-e.

rapidly drive-CI   NEG-do-PAST-DEC

(i) 'It is not the case that Bill drove the car fast and John drove the bycicle fast'

(ii) *'Bill didn't drive the car fast, and John didn't drive the bycicle fast'

(64)
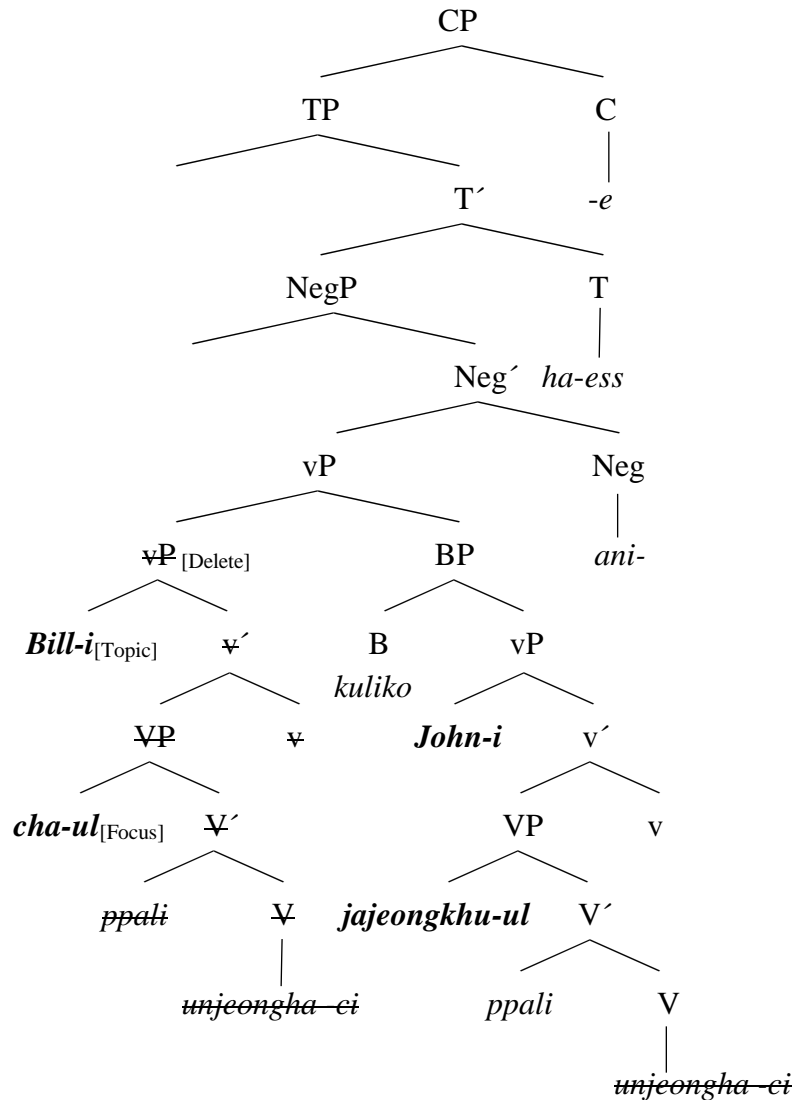
Recall that I have shown before (cf. § 4.1.2) that in Korean gapping, the missing adverbial is not instance of *pro* (or AE) but the consequence of the ellipsis containing the verb. And the wide-scope reading in (63i) can be obtained only from low-coordination. On combining these results with the vP-deletion in my analysis, I claim that the missing adverb *ppalli* in the first conjunct of (63) must be the result of the deletion of the vP containing it: otherwise, there is no way to elide the adverb under discussion. Importantly, ATB-movement of the verb (*á la* Lee 2005) does not capture the interpretation of the missing adverb in the first

conjunct because it is not plausible to assume that the adverb *ppalli* also undergoes ATB-movement (or something like that).

   If this is the case, then we have an instance of vP-deletion in Korean, and therefore the analysis shown in (61) is not as problematic as it seems.

   There is another instance of vP-deletion in the Korean ellipsis constructions. In the literature, Park (2015) proposes that in verbal ellipses such as the one illustrated below, the missing material in (65B) must be the result of the ellipsis of the vP.

(65)   A: Tom-un [[$_{CP}$ caki-ka   khuta-ko] sayngkak]$_1$-an-ha-ess-ta.

        Tom-TOP   self-NOM tall-C   think-NEG-do-PAST-DEC

        'Tom did not think that he is tall'

      B: Mina-to [e_1] an-ha-ess-ta.

        Mina-also   NEG-do-PAST-DEC

        (Lit.) "Mina also did not"

                                                                    (Park 2015: 2, (4))

Putting aside details, his main claim is straightforwardly supported by the syntax of Korean negation; i.e. as mentioned before, a NegP is always generated below the TP and above the vP (see a.o. Hagstrom 1995, 1996). Given this, it is not difficult to identify that the missing material of (65B) is at best a vP. If this is the case, then we have another case of vP-deletion in negative contexts, supporting my analysis in (64).[213]

   All things considered, unless we have overwhelming evidence in support of ATB-movement (or PM) for the wide-scope reading in (58ii), we can maintain the idea that they are derived by PF-deletion.

4.2.2.   High-coordination gapping

On the other hand, I propose that the narrow-scope reading in (58i) comes from the derivation shown in (66) where the sentence involves high-coordination, and the NOM-Case marked subjects appear outside the vPs (cf. (60b)).

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[213] I do not have much to say about this licensing environment; i.e. negative contexts where the missing verbal material cannot be *pro* nor AE.

(66)

```
                                    CP
                        ┌───────────┴───────────┐
                       TP                        C
              ┌─────────┴─────────┐              │
           TP[Delete]            BP             -e
         ┌────┴────┐        ┌─────┴─────┐
    John-i_i[Topic]  T´     B          TP
              ┌──────┴──┐  kuliko   ┌───┴────┐
            NegP        T         Mary-ka_j   T´
          ┌───┴───┐                      ┌────┴────┐
        Neg´  ha-ess                   NegP        T
      ┌───┴───┐                      ┌───┴────┐    │
    vP        Neg                  Neg´ ha-ess  ha-ess
  ┌──┴──┐      │                  ┌───┴───┐
 t_i    v´    ani-              vP        Neg
      ┌─┴──┐                  ┌──┴──┐      │
     VP     v                t_j    v´    ani-
   ┌──┴──┐                        ┌─┴──┐
sakwa-ul[Focus] V               VP     v
              │             ┌────┴───┐
            mek-ci       orange-ul    V
                                      │
                                    mek-ci
```
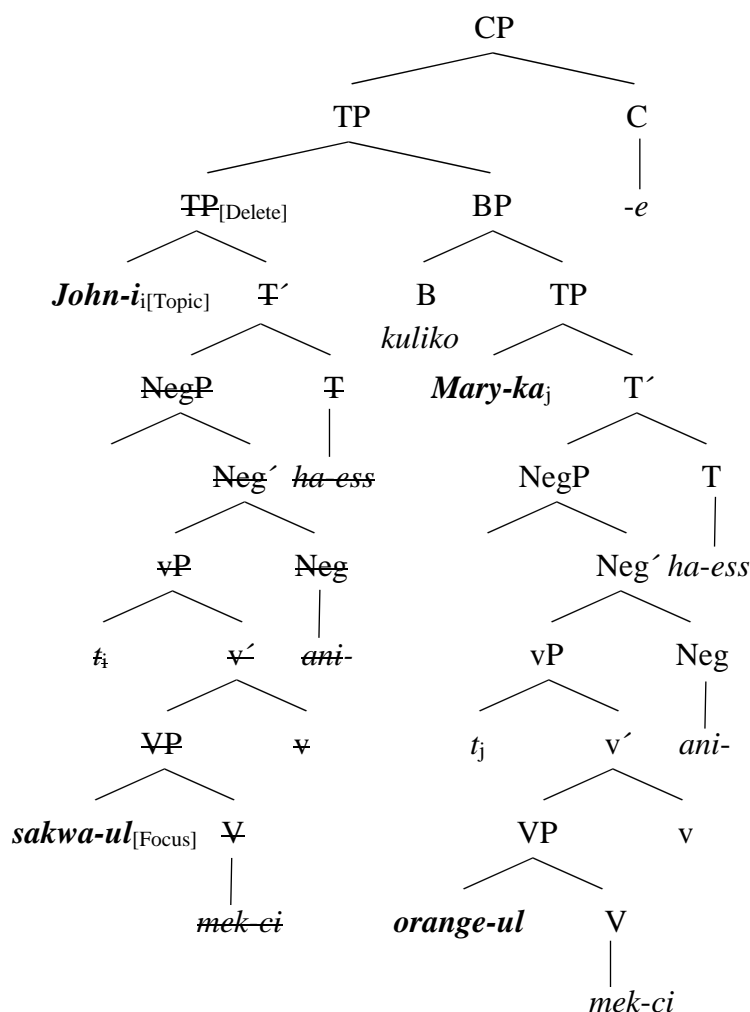
In this case, as each conjunct contains its own clausal negation (in NegP), the sentence will have only the narrow-scope reading.

As mentioned before, following Park (1994), a.o., I have assumed that the NOM-Case marked subjects may raise to [Spec,TP] in Korean, and the topic-status of the NOM-Case marked subject is not problematic because nothing in principle prevents it from being topic of the sentence. Importantly, for this type of gapping, there must be a prosodic break between the two conjuncts of (58) when it gives the narrow-scope reading, which is not easy to obtain without a prosodic pause for those who I have consulted. Thus, the sentence in (58) with the narrow-scope reading should be represented as follows.

(67) John-i   sakwa-lul ___, kuliko Mary-ka   orange-lul   mek-ci ani-ha-ess-e.
      John-NOM apple-ACC   and   Mary-NOM orange-ACC eat-CI NEG-do-PAST-DEC
      (i) 'John didn't eat apple, and Mary didn't eat orange'
      (ii) *'It wasn't the case that John ate apple and Mary ate orange'

Recall that, as mentioned before (cf. § 3.2), such a prosodic break between the conjuncts is an indication that gapping involves high-coordination (rather than low-coordination), and this prosodic requirement also holds for Korean gapping.

In the same way, the gapping sentence in (59) involves high-coordination in which, assuming (60a), the Topic-marked subjects are located outside the vPs, as illustrated in (68).

(68)

```
                              CP
                          /        \
                        TP          C
                    /       \        |
              TP[Delete]     BP      -e
             /    \        /    \
    John-un_i[Topic]  T´   B      TP
              /   \  kuliko    /    \
          NegP     T     Mary-nun_j   T´
          /   \    |              /    \
      Neg´  ha-ess            NegP      T
      /   \                   /   \     |
    vP    Neg            Neg´ ha-ess
   /  \    |            /   \
  t_i  v´  ani-        vP    Neg
      /  \            /  \    |
    VP    v         t_j   v´  ani-
   /  \                  /  \
sakwa-ul[Focus]  V     VP    v
         |            /  \
      mek-ci     orange-ul  V
                            |
                         mek-ci
```
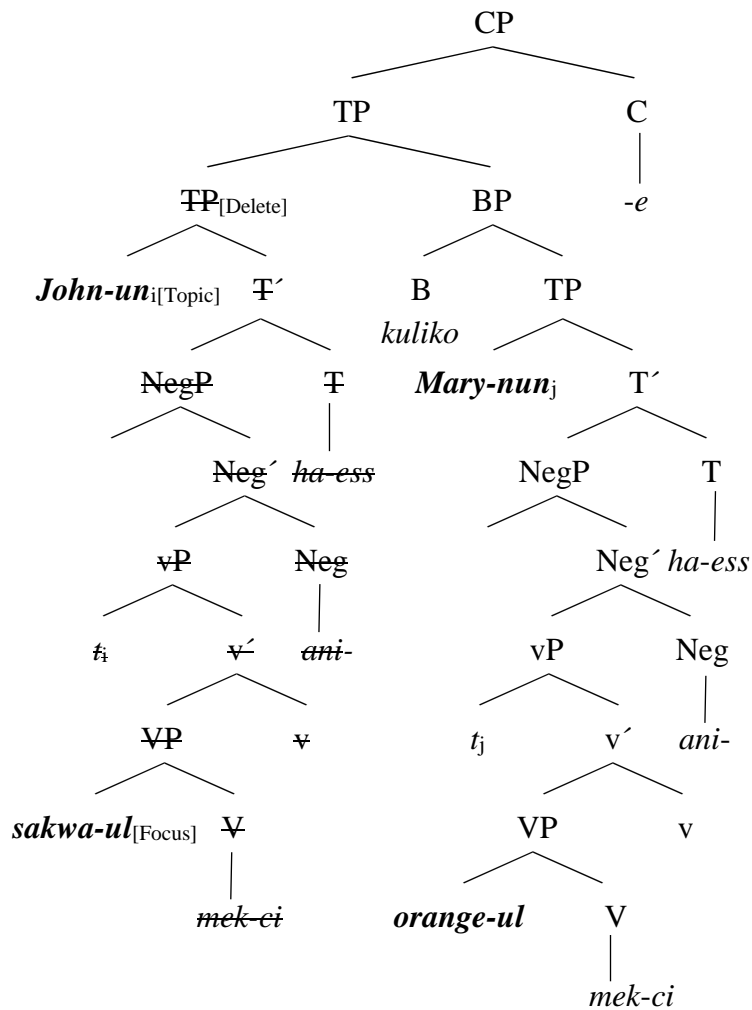
Thus, the sentence is expected to have only the narrow-scope reading.

As mentioned before, the high-coordination involved in this configuration is further supported by the existence of embedded antecedent and cases where the gap consists of the matrix verb and the embedded verb including the complementizer.

In addition, gapping sentences that involve object scrambling such as (69) must be analyzed in terms of high-coordination plus PF-deletion, as shown in (70).

(69) Pang-ul   John-i   ___, kuliko bap-ul   Bill-i   mek-ess-e.
      bread-ACC John-NOM   and   rice-ACC Bill-NOM eat-PAST-DEC
      'Bread, John ~~ate~~, and rice, Bill ate'

(70)

```
                                    CP
                          ┌──────────┴──────────┐
                         TP                      C
                  ┌───────┴───────┐              │
               T̶P̶[Delete]         BP            -e
             ┌────┴────┐      ┌────┴────┐
       pang-ul-i[Focus] T̶´    B         TP
                    ┌───┴───┐ kuliko  ┌──┴───┐
                   v̶P̶       T̶      bap-ul-j   T´
                ┌───┴───┐   │           ┌─────┴─────┐
          John-i[Topic] v̶´  -e̶s̶s̶       vP          T
                   ┌───┴──┐          ┌───┴───┐      │
                 V̶P̶        v̶      Bill-i     v´    -ess
               ┌──┴──┐            ┌──────┴──────┐
             t̶-i     V̶          VP             v
                     │        ┌───┴───┐
                   s̶i̶k̶i̶-      t-j      V
                                       │
                                     siki-
```
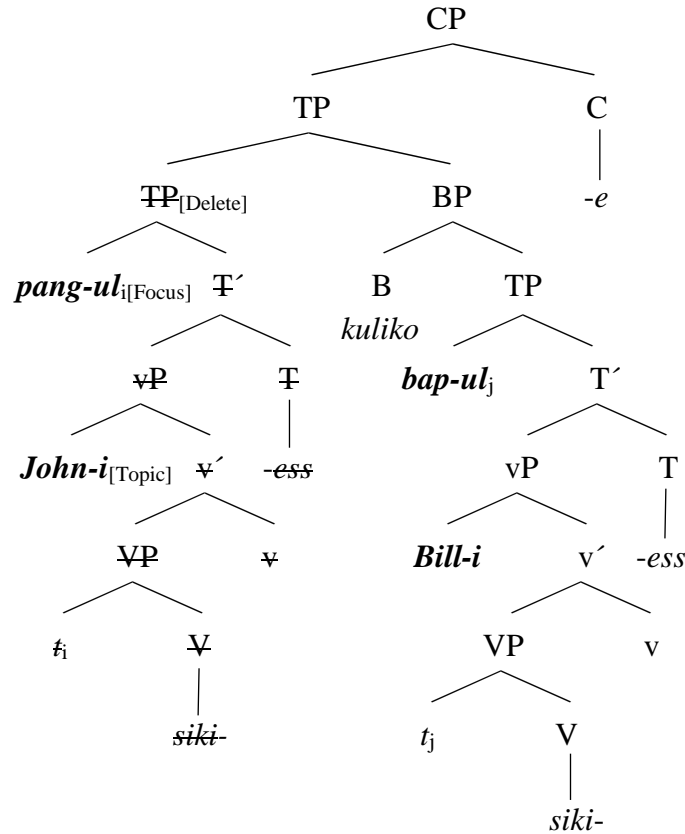
In (69), following crucially Miyagawa (1994, 2001, 2003, 2005), a.o., I assume that the object DP undergoes short-distance (or clause-internal) scrambling to [Spec,TP], as an instance of A-movement to satisfy the [Focus]-feature of T°, which is inherited from C° (see Miyagawa 2010, 2016 for more details about the formal feature specifications on T° from a crosslinguistic perspective). In languages like Japanese and Korean, it has been extensively claimed that clause-internal scrambling can be either A-movement or A'-movement, whereas long-distance (or clause-external) scrambling is invariably A'-movement (see Mahajan 1990, 1994; Webelhuth 1989, 1992; Tada 1993; Saito 1992, 2003, 2006; Cho 1994; Ueyama 1999/2001; Abe 2002/2005; Lee 2007, a.o.). But in (70), whether the object DP undergoes short-distance or long-distance scrambling is immaterial for my

analysis since in any case, scrambling therein will proceed toward some position outside the vP.[214]

Proponents of ATB-movement of the verb under low-coordination might want to deal with data like (69) by assuming that the object DP undergoes short-distance scrambling to a vP-internal position over the subject position in [Spec,vP]. However, this could be the case only if scrambling is a sort of adjunction to XP (*á la* Saito 1992) rather than movement to the specifier position of a functional head X°. However, I will assume that scrambling cannot be adjunction to XP, which has been idempotently argued by Grewendorf and Sabel (1999), and Ko (2005, 2007) where the authors propose that Japanese/Korean scrambling, in contrast to the German counterpart, involves successive cyclic movement to specifier positions (see also Abe 2016c). If we follow this perspective, object scrambling to a vP-internal position is not feasible due to the absence of a right specifier available in languages like Japanese and Korean. In the literature, there have been proposals on scrambling to the outer specifier of the vP in languages like Korean (or Japanese), but only as an intermediate landing site on its way to some position at the CP-periphery (see a.o. Ko 2005, 2007, 2008, 2014, 2016a,b). If this is the case, we can dismiss the possibility of object scrambling to the outer specifier of vP as a final landing site, and therefore we can conclude that the low-coordination approaches to Korean gapping cannot account for scrambling facts: because under that analysis, the object DP will always be found outside the vP.

As I claimed throughout § 3.3.2, my analysis with deletion without movement does not face any problem with complex gaps; e.g. there is no need to make discontinuous gaps to be continuous, so that a complex gap like (71) has the derivation shown in (72).

(71) John-un ___ chaykjang-ey ___, kuliko

      John-TOP   shelve-LOC   and

      Mary-nun chayk-ul   table-ey   noh-ass-e.

      Mary-TOP book-ACC table-LOC put-PAST-DEC

      'John ~~put the book~~ on the shelve, and Mary put the book on the table'

---

[214] One interesting implication from scrambling facts in Korean (or Japanese) gapping is that scrambling must be a syntactic operation, contrary to authors like Fukui and Sakai (2003), and Agbayani, Golston, and Ishii (2015) who argue that (some of) scrambling is phonological. This is because it is theoretically impossible to imagine that something is scrambled at PF and the structure containing it is elided at PF. If this were possible, both PF-scrambling and PF-deletion should happen at the same time or scrambling must somehow precede the deletion at PF. But the obvious question to be asked is how exactly they work in contexts of ellipsis. I will maintain the idea that scrambling occurs in syntax.

(72)

CP
├─ TP
│ ├─ TP[Delete]
│ │ ├─ *John-un*[Topic]
│ │ └─ T́
│ │   ├─ vP
│ │   │ └─ v́
│ │   │   ├─ VP
│ │   │   │ ├─ *chayk-ul*
│ │   │   │ └─ V́
│ │   │   │   ├─ PP
│ │   │   │   │ └─ **chaykjang-ey**[Focus]
│ │   │   │   └─ V
│ │   │   │   └─ *noh-*
│ │   │   └─ v
│ │   └─ T
│ │   └─ *-ess*
│ └─ BP
│   ├─ B
│   │ *kuliko*
│   └─ TP
│   ├─ **Mary-nun**
│   └─ T́
│   ├─ vP
│   │ └─ v́
│   │   ├─ VP
│   │   │ ├─ *chayk-ul*
│   │   │ └─ V́
│   │   │   ├─ PP
│   │   │   │ └─ **table-ey**
│   │   │   └─ V
│   │   │   └─ *noh-*
│   │   └─ v
│   └─ T
│   └─ *-ess*
└─ C
   └─ *-e*
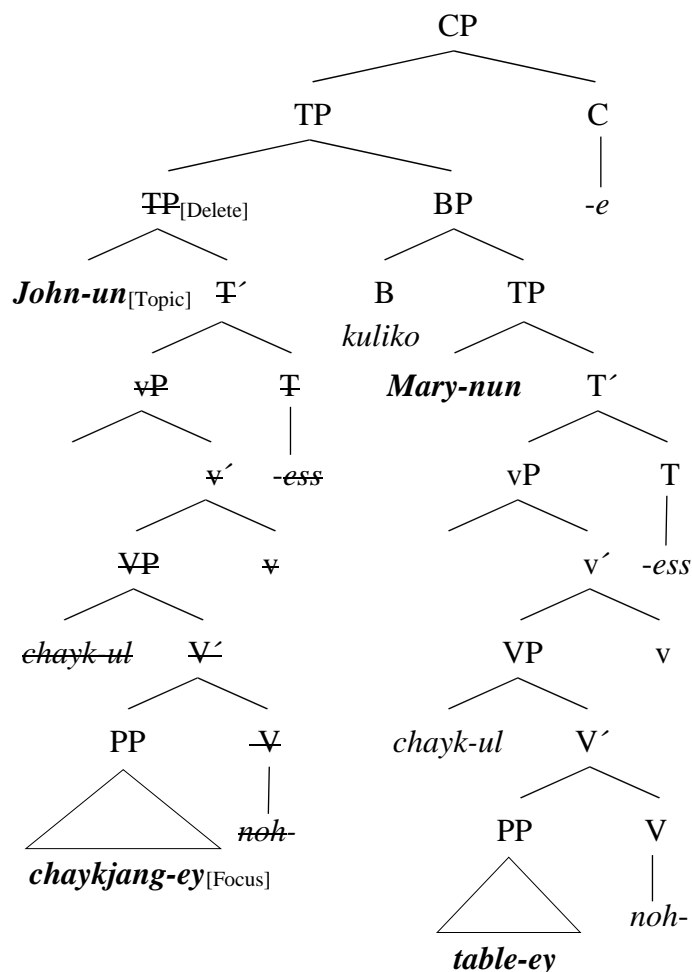
With this in mind, the following section will address some syntactic differences that exist between the two types of gapping in Korean, and I will show how such differences can be successfully settled under my proposal.

4.2.3.　Accounting for NPI-licensing and honorification in Korean gapping

The two types of Korean gapping addressed in the previous sections behave differently in various aspects. First, they have different possibilities of NPI-licensing in the first conjunct. Before entering the discussion, let me briefly introduce NPI-licensing in Korean.

In the literature, it has been described that NPIs are possible as long as there is a licenser (e.g. negation (or *n*-word)) in the same clause. Some authors like Choe (1998), Kuno (1998), Chung and Park (1998), and Sells (2001) have shown that Korean has a syntactic clause-mate condition on NPI-licensing, as schematically illustrated in (73).

(73) a.   *[s … NPI …] … Neg …

      b.   *NPI … [s … Neg …]

Given this condition, now consider the minimal pair in (74), which is taken from Yoon (1994) (The syntactic representations and English glosses are from the author).

(74) a. *Amwuto* [[_{VP} pap-ul   mek-ko] [_{VP} kulus-ul   chiwu-ci]] ani ha-yess-ta.

          anyone   meal-ACC eat-CONJ   dishes-ACC clean-CI   NEG do-PAST-DEC

          'No one ate the meal and cleaned the dishes'

      b. *[[_{IP} *Amwuto* pap-ul   mek-ess-ko] [_{IP} kulus-ul   chiwu-ci ani ha-yess]]-ta.

          anyone   meal-ACC eat-PAST-CONJ dishes-ACC clean-CI NEG do-PAST-DEC

          'No one ate the meal and cleaned the dishes'

In (74a), the NPI *amwuto* 'anyone' is licensed in VP-level coordination because it is located in the same clause as negation. But in (74b), in TP-level coordination, *amwuto* is not licensed since it is not situated in the same clause as *ani*. This contrast confirms that NPI-licensing in Korean is constrained by the clause-mate condition.

Going back to NPI-licensing in Korean gapping, Lee (2005) observes that only NPI (in italics) of the second conjunct can be licensed by the negation present in that conjunct, as shown by the contrast between (75a) and (75b).

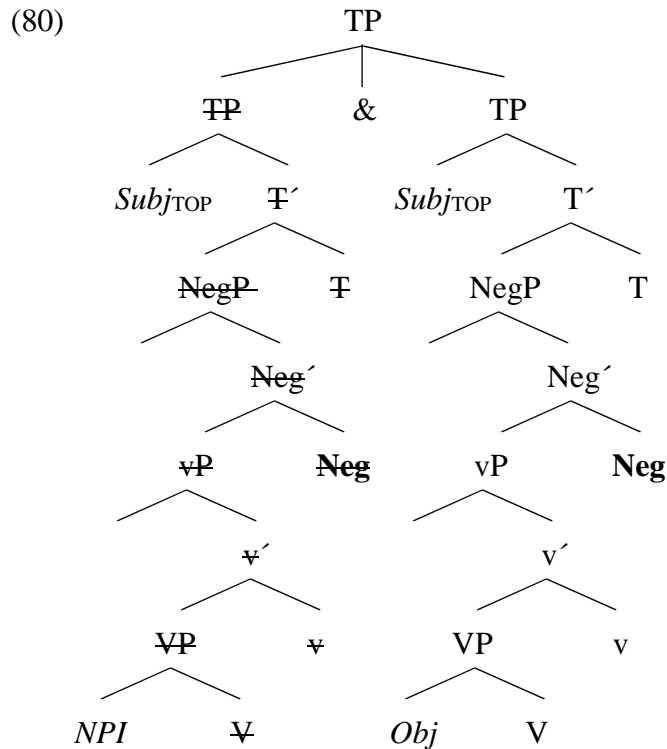(75) a. ^{*/?}John-i   *amwukuto* ___ kuliko Mary-ka   pang-ul

          John-NOM *anything*   and   Mary-NOM bread-ACC

          mek-ci ani-ha-ess-e.

          eat-CI   NEG-do-PAST- DEC

          'John ~~didn't eat~~ anything, and Mary didn't eat bread'

      b. John-i   pang-ul ___ kuliko Mary-ka   *amwukuto*

          John-NOM bread-ACC   and   Mary-NOM *anything*

          mek-ci ani-ha-ess-e.

          eat-CI   NEG-do-PAST- DEC

          'John ~~didn't eat~~ bread, and Mary didn't anything'

According to this author, the example in (75b) is grammatical because the NPI is situated within the c-commanding domain of negation under low-coordination. However, despite

the fact that the NPI of the first conjunct is also located within the c-command domain of negation, the example in (75a) is not acceptable, contrary to our expectations. If the sentences in (75) involve low-coordination, as claimed by Lee (2005), the corresponding representation would be the one illustrated in (76) in which the NPIs of both conjuncts are equally c-commanded by negation.[215]

(76)

```
              NegP        …
              /\
             Neg´
            /   \
          vP     Neg
         / |  \
       v̶P  &   vP
      /  \      /  \
 Subj_NOM  v̶´  Subj_NOM  v´
       / \         /  \
     V̶P   v̶      VP    v
    /  \        /  \
 ⎡Obj ⎤  V̶   ⎡NPI⎤   V
 ⎣*NPI⎦       ⎣Obj⎦
```
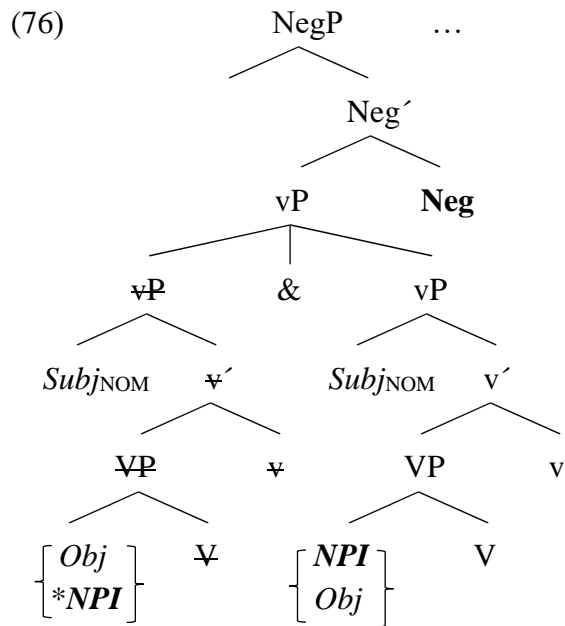
Lee suggests that the unacceptability of (75a) does not come from the violation of c-command but from the fact that the NPI of the first conjunct does not meet the semantic parallelism; she states that "heaviness in meaning between the full referential noun and the NPI is different … accordingly the oddness of the sentence (50) (=(75a)) cannot be evidence that negation does not take scope over the two conjuncts or each conjunct (Lee 2005: 551-552)". However, this suggestion, as it stands, is highly controversial because it amounts to saying that the example in (75b) should be also unacceptable for the same reason, contrary to fact. Therefore, such mismatches in semantic parallelism cannot be the explanation for the unacceptability of (75a). In what follows, I will attempt to elucidate the puzzling contrast between (75a) and (75b).

In the literature, some authors like Choe (1998), Sells (2001), and Sells and Kim (2006) have noted that in Korean, only NPI which appears in the same clause as negation can be licensed (i.e. the clause-mate condition), as shown in the examples in (77). Although

---

[215] I am abstracting away the syntactic structure for presentational purposes.

these examples involve NPIs inside the c-command domain of negation, when they are not in the same clause as negation (77a) or appear inside the PP (77b), the resulting sentences turn out to be ungrammatical.

(77) a. *Mary-nun   [John-i   *amwuto*   manna-ss-ta-ko]

      Mary-TOP   John-NOM   anybody   meet-PAST-DEC-C

      sayngkakha-ci   ani-ha-ass-ta.

      think-CI   NEG-do-PAST-DEC

      'Mary does not think that John met anybody.'

   b. *[[Amwukuteydo] kwanhan   sayngkak-i] eps-e-yo.

      [anything]   concerning   idea-NOM   not.be-DEC-YO

      'I do not have an idea about anything.'

                                     (Sells and Kim 2006: 283)

This fact makes a sharp contrast with the English counterparts, which are fully grammatical because NPIs in English can be licensed whenever they are in the scope of negation. In short, the Korean examples in (77) show that c-command is not the only condition for NPI-licensing.

     Furthermore, NPI-licensing in Korean object NP-coordination shows that a NPI in the first NP-conjunct is not allowed, even though it is c-commanded by negation.[216]

(78) a. *John-i   [amwu chayk-to   kuliko sinmwun-ul]   ilk-ci   ani-ha-ess-e.

     John-NOM any   book-even and   the.newpaper-ACC read-CI NEG-do-PAST-DEC

     'John didn't read the newspaper and any book'[217]

---

[216] The contrast between (78a) and (78b) is confirmed by native speakers without exception. Interestingly, similar cases are also found in Spanish, where in object NP-coordination, a NPI *ninguna mujer* 'no woman' in the second NP-conjunct cannot be licensed by another NPI in subject position (ia), whereas if the NPI *ninguna mujer* appears in the first NP-conjunct, then the sentence is grammatical (ib).

(i)   a.   *Nadie vio a [Juan y   ninguna mujer].
           nobody saw to Juan and no   woman
    b.   Nadie   vio a [ninguna mujer y Juan].

                                (Camacho 2003: 21, (47a) and (48))

[217] Due to the head directionality, the English counterpart is understood as a reverse case where the NPI is closer to Neg° than the other NP. For the moment, I am not sure whether the English counterpart of (77a) is grammatical or not. According to my informants of English, *John didn't read the newspaper and any book* sounds awkward and is not so good as *John didn't read any book and the newspaper*. If so, the contrast in the text holds in English (as well as Spanish).

b. John-i   [sinmwun-ul   kuliko amwu chayk-to] ilk-ci ani-ha-ess-e.

John-NOM the.newpaper-ACC and   any   book-even read-CI NEG-do-PAST-DEC

'John didn't read any book and the newspaper'

That is, the ungrammaticality of (78a), similar to (75a), is not explained in terms of the clause-mate condition. From this observation, it is clear that in (78a) we have the same operation that blocks the licensing of the NPI in the first conjunct. Accordingly, we can suggest that the ungrammaticality of (75a) has something to do with the impossible NPI-licensing in the first conjunct of coordination.[218]

So what we have to do is to see whether NPI-licensing is possible in the first conjunct if we have high-coordination. As shown in (79), when the sentence involves a prosodic pause and Topic-marked subjects, the NPIs can be licensed in both conjuncts.[219]

(79) a.   John-un *amwukuto* ___, kuliko Mary-nun pang-ul

John-TOP *anything*   and   Mary-TOP bread-ACC

mek-ci ani-ha-ess-e.

eat-CI   NEG-do-PAST- DEC

'John ~~didn't eat~~ anything, and Mary didn't eat bread'

b.   John-un   pang-ul ___, kuliko Mary-nun *amwukuto*

John-TOP bread-ACC   and   Mary-TOP *anything*

mek-ci ani-ha-ess-e.

eat-CI   NEG-do-PAST- DEC

'John ~~didn't eat~~ bread, and Mary didn't anything'

The acceptability of the sentence in (79a) indicates that the NPI *amwukuto* 'anything' of the first conjunct is appropriately licensed by its licensor; namely the negation *ani* 'not'. Recall that, as stated by the configuration given in (60a), the Topic-marked subjects must be situated outside the vPs. This means that, in order to license the NPI of the first conjunct, there must be a negation which is included in the missing portion of that conjunct. Therefore,

---

[218] This might be understood as some kind of sensitivity to linear proximity rather than c-command; i.e. since the second conjunct is always closer to Neg° than the first conjunct, the NPI of the latter cannot be licensed by negation due to the closeness condition. I will leave this issue for future research.

[219] As mentioned before, gapping with Topic-marked subjects requires a substantial prosodic pause between the two conjuncts. My informants confirm to me that this is necessary for (79) to be acceptable.

the sentence in (79a) must involve a high-coordination such as (80) in which each conjunct contains its own negation (in NegP).

(80)

```
                              TP
                    ┌──────────┼──────────┐
                   T̶P̶         &          TP
               ┌────┴────┐         ┌──────┴──────┐
           Subj_TOP     T̶´       Subj_TOP       T´
                    ┌────┴────┐           ┌──────┴──────┐
                  N̶e̶g̶P̶       T̶        NegP            T
                    │                    │
                  N̶e̶g̶´                 Neg´
               ┌────┴────┐          ┌─────┴─────┐
              v̶P̶        **N̶e̶g̶**      vP         **Neg**
               │                    │
              v̶´                   v´
            ┌──┴──┐             ┌───┴───┐
           V̶P̶     v̶           VP       v
         ┌──┴──┐            ┌───┴───┐
        NPI    V̶          Obj      V
```

Given this structure, it therefore comes as no surprise that the sentence in (80a) is acceptable: because the NPI of the first conjunct is properly licensed by its own negation, and not by the one present in the second.[220]

If this is the case, we predict is that examples such as (79) provide only the narrow-scope reading of negation, whereas examples like (75b) give only the wide-scope reading. This prediction is borne out, as shown by (81) and (82), respectively.

(81) a.   John-un   *amwukuto* ___, kuliko Mary-nun pang-ul
            John-TOP *anything*   and   Mary-TOP bread-ACC
            mek-ci ani-ha-ess-e.
            eat-CI   NEG-do-PAST- DEC
            (i) 'John didn't eat anything, and Mary didn't eat bread'

---

[220] This is to a large extent reminiscent of the Spanish examples discussed in § 3.2.2.4; e.g., *Juan tiene dos hermanas, y Luis (no tiene/*tiene) ningún hermano*, and *Antonio fue a Italia, y Pedro (no fue/*fue) a ningún sitio*, etc., for which I have claimed that the missing portion of the second conjunct must involve a negation so as to license the NPI; otherwise, the appearance of NPI in the second conjunct cannot be explained by the widely accepted NPI-licensing; e.g., by a licensor such as negation (or *n*-word).

(ii) *'It is not the case that John ate something and Mary ate bread'

b.　　John-un pang-ul ___, kuliko Mary-nun *amwukuto*

John-TOP bread-ACC and Mary-TOP *anything*

mek-ci ani-ha-ess-e.

eat-CI NEG-do-PAST- DEC

(i) 'John didn't eat bread, and Mary didn't anything'

(ii) *'It is not the case that John ate bread and Mary ate something'

(82)　　John-i pang-ul ___ kuliko Mary-ka *amwukuto*

John-NOM bread-ACC and Mary-NOM *anything*

mek-ci ani-ha-ess-e.

eat-CI NEG-do-PAST- DEC

(i) *'John didn't eat bread, and Mary didn't anything'

(ii) 'It is not the case that John ate bread and Mary ate something'

Furthermore, my proposal drawn from different subject marking and different syntactic positions of the subjects (cf. (60a-b)) is also supported by honorification facts.[221]

The relevant examples are given in (83). When the subjects of both conjuncts are Topic-marked, the honorific subject *sensayngnim* 'teacher' of the second conjunct is compatible with the honorific morpheme *–si*, as shown in (83a). On the contrary, when the subjects of both conjuncts are NOM Case-marked, subject honorification is not possible for the honorific subject *sensayngnim*, as illustrated in (83b).

(83) a.　　John-un bap-ul ___, kuliko sensayngnim-un pang-ul   du-si-ess-e.

John-TOP rice-ACC and teacher-TOP   bread-ACC eat-HON-PAST-DEC

---

[221] Subject honorification in Korean has been described as follows: it recognizes the elevated social status of a participant in a clause with respect to the subject or the hearer. Honorific marking may be manifest as a nominal suffix, a special honorific form of a noun, an honorific case particle, an honorific marker on a verb, or a special honorific form of a verb. Consider the minimal pair in (i).

(i)　a.　　Sensayngnim-i ka-si-ess-ta.
　　　　　teacher-NOM   go-HON-PAST-DEC
　　b.　　Koyangi-ka ka-(*si-)ess-ta.
　　　　　cat-NOM   go-(*HON-)PAST-DEC

The sentence in (ia) is well-formed since the subject *sensayngnim* 'teacher' is honorific and thus compatible with honorific marker *–si*. On the contrary, the sentence in (ib) is not well-formed because *koyangi* 'cat' is not honorific and hence incompatible with *–si*.

'John ~~ate~~ rice, and the teacher ate bread'

b.   *John-i   bap-ul ___ kuliko sensayngnim-i pang-ul   du-si-ess-e.

        John-NOM rice-ACC   and   teacher-NOM   bread-ACC eat-HON-PAST-DEC

Subject honorification in Korean has been argued to be a clause-bound agreement between the honorific subject and the functional head (Fº) containing the honorific morpheme –*si* (Han 1987; Choe 1988; Kang 1988; Ryu 1994; Ahn 2002; Choe 2004; Koopman 2005; Choi 2009, 2010, a.o.). I will follow this agreement approach to subject honorification in Korean without further discussion.[222] Then, what the grammaticality of (83a) indicates is that the honorific subject *sensayngnim* of the second conjunct is clause-bound and thus appropriately licensed by the honorific morpheme –*si*, as a result of honorification agreement.

Given this situation, the obvious question that arises is why the example in (83b) is unacceptable in comparison with the one in (83a).

The idea I have in mind is that the ungrammaticality of (83b) is attributable to the fact that the NOM Case-marked subjects of both conjuncts are equally clause-bound by the morpheme –*si* located in Fº. This is because under low-coordination (i.e. vP-coordination) the subjects of both conjuncts in (83b) are equidistant to Fº in the sense of Chomsky (1995, 2000). Accordingly, what is going wrong in (83b) is that, as the subject *John* of the first conjunct is not honorific, it cannot agree with the honorific morpheme –*si*, as illustrated in (84).

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[222] Kim and Sell (2007) argue that honorification in Korean is not syntactic agreement, though they do not provide an alternative. To reinforce the syntactic agreement perspective on honorification, I would like to mention that in Korean, only NOM Case-marked NPs can trigger honorification agreement; e.g. DAT (or LOC) Case-marked subjects (e.g. in Psych-verb and *Tough*-movement constructions) are not compatible with the honorific morpheme –*si* (see Alcaraz and Jung 2012, 2013 for more details). This means that subject honorification is somehow related with Tº (or Agrº), which is arguably responsible for NOM Case assignment and honorification agreement. In Japanese, both subject honorification and object honorification have been also claimed as instances of syntactic agreement (Harada 1976; Shibatani 1973, 1977; Kuno 1987; Toribio 1990; Kishimoto 2000, 2012; Boeckx and Niinuma 2004, a.o.). Thus, honorification-as-agreement is not so problematic as it seems at first sight.

(84)

```
                        TP
                        /\
                          T´
                          /\
                     FP        T
                    /\
                      F´
                      /\
                  vP        si[+HON]
                 /|\
            vP    &    vP
           /\          /\
      John NOM[-HON]  …  teacher NOM[+HON]  …
```
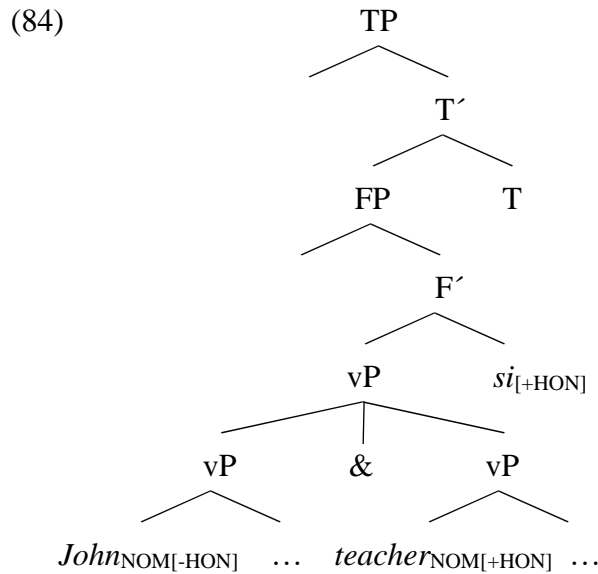
As a consequence, the sentence in (83b) is ungrammatical due to the failure of honorification agreement between *–si* and the subject *John* of the first vP-conjunct, and not because of the incompatibility of *–si* with the subject *teacher* of the second vP-conjunct, which is perfectly possible as observed earlier in (83a). Now let us see how the example in (83a) turns out to be grammatical. I propose that the sentence in (83a) has the representation in (85) in which we have a high-coordination and Topic-marked subjects in both conjuncts. In this configuration, it is clear that the subject *John* of the first conjunct does not enter into an Agree relation with *–si* because the former is not in the domain of the latter.

(85)

```
                        TP
                       /|\
              TP        &        TP
             /\                  /\
     John TOP[-HON]  T´   teacher TOP [+HON]  T´
                    /\                       /\
                vP      T              FP        T
               /\                     /\
         *John TOP[-HON]  …              F´
                                        /\
                                    vP      si[+HON]
                                   /\
                             *teacher[+HON]  …
```
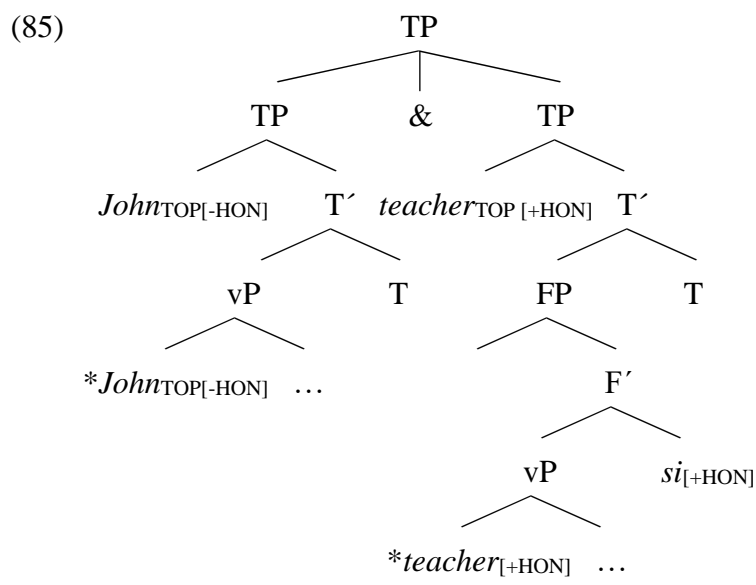
Accordingly, the sentence in (83a) is acceptable with honorification agreement only in the second conjunct, where the honorific subject *teacher*[+HON] appropriately agrees with the

honorific morpheme –*si*[+HON]. Note that the Agree relation (for honorification agreement) between these two elements is already established at the point at which the vP merges with F° in the derivation, and consequently in the second conjunct of (85), the unacceptability of a Topic-marked subject inside the vP is not related with the failure of honorification agreement.[223]

Thus far I have argued that that Case-marked and Topic-marked subjects in Korean gapping have different behaviors in various syntactic contexts, which is a good indication that there are indeed two types of gapping in this language. Specifically, gapping with NOM Case-marked subjects and without prosodic break between the conjuncts involves low-coordination (86a), which provides the wide-scope reading of negation, whereas gapping with Topic-marked subjects and prosodic pause involves high-coordination (86b), which is responsible for the narrow-scope reading, NPI-licensing, and subject honorification.

(86) a.   S$_{NOM}$ O ___ & S$_{NOM}$ O   V   (*Low-coordination*)

      b.   S$_{NOM/TOP}$ O ___, & S$_{NOM/TOP}$ O   V   (*High-coordination*)

This kind of approach to Korean gapping correctly predicts that only the gapping type shown in (86b) allows two different temporal adverbials for each conjunct, as shown by the contrast between (87a) and (87b).

(87) a.   *Chelswu-ka ecey   yenghi-lul   kuliko Mary-ka
            C.-NOM   yesterday English-ACC and   Mary-NOM
            kucey   hankooke-lul kongbuha-ess-e.
            the day before yesterday Korean-ACC study-PAST-DEC
            'Chelswu ~~studies~~ English yesterday, and Mary studied Korean the day before
             yesterday'

      b.   Chelswu-nun ecey   yenghi-lul,   kuliko Mary-nun
            C.-TOP   yesterday English-ACC and   Mary-NOM
            kucey   hankooke-lul kongbuha-ess-e.
            the day before yesterday Korean-ACC study-PAST-DEC

---

[223] For presentational purposes, I am assuming subject movement to [Spec,TP] (see a.o. Lee 2008 for a movement approach to Topic-marked subjects in Korean). Note however that my argumentation of the text will be intact even if one assumes that the Topic-marked subject is base-generated in [Spec,TP] (or [Spec,TopP]) from which it will bind *pro* in [Spec,vP]. Either way, they will be located outside the vPs.

'Chelswu ~~studies~~ English yesterday, and Mary studied Korean the day before
yesterday'

Notice that even with the NOM Case-marked subjects, the two temporal adverbials are possible if there is a prosodic break between the two conjuncts (88), which is an indication that the sentence involves high-coordination.

(88)   Chelswu-ka ecey   yenghi-lul,   kuliko Mary-ka
       C.-NOM   yesterday English-ACC and   Mary-NOM
       kucey   hankooke-lul kongbuha-ess-e.
       the day before yesterday Korean-ACC study-PAST-DEC
       'Chelswu ~~studies~~ English yesterday, and Mary studied Korean the day before
        yesterday'

Does this result mess up the main idea of my proposal? That need not be the case.

Recall that NOM Case-marked subjects do not have to be always located inside the vPs (cf. (60b)). That is, they can be in some positions outside the vP; e.g. [Spec,TP] (or [Spec,TopP]) as a result of optional EPP-movement (or something like that) (see Park 1994). In that case, we predict that both NPI-licensing and subject honorification should be possible in gapping involving NOM Case-marked subjects. This prediction is indeed borne out, as shown below where the sentences corresponding to (81a) and (83b) are substantially improved by a prosodic break between the two conjuncts.

(89) ?John-i   *amwukuto* ___, kuliko Mary-ka   pang-ul
     John-NOM *anything*   and   Mary-NOM bread-ACC
     mek-ci ani-ha-ess-e.
     eat-CI   NEG-do-PAST- DEC
     'John ~~didn't eat~~ anything, and Mary didn't eat bread'

(90) ?John-i   bap-ul ___, kuliko sensayngnim-i pang-ul   du-si-ess-e.
     John-NOM rice-ACC   and   teacher-NOM   bread-ACC eat-HOR-PAST-DEC
     'John ~~ate~~ rice, and the teacher ate bread'

That is, both the sentence in (89) and the one in (90) involve high-coordination, so that we can account for in a principled way both NPI-licensing and subject honorification.

If this is right, the sentence in (90), for example, will not involve the derivation shown in (83) but the one illustrated in (91), where the non-honorific subject *John* of the first conjunct does not have anything to do with honorification agreement with *–si* because the former appears outside the clause-bound domain of the latter.

(91)
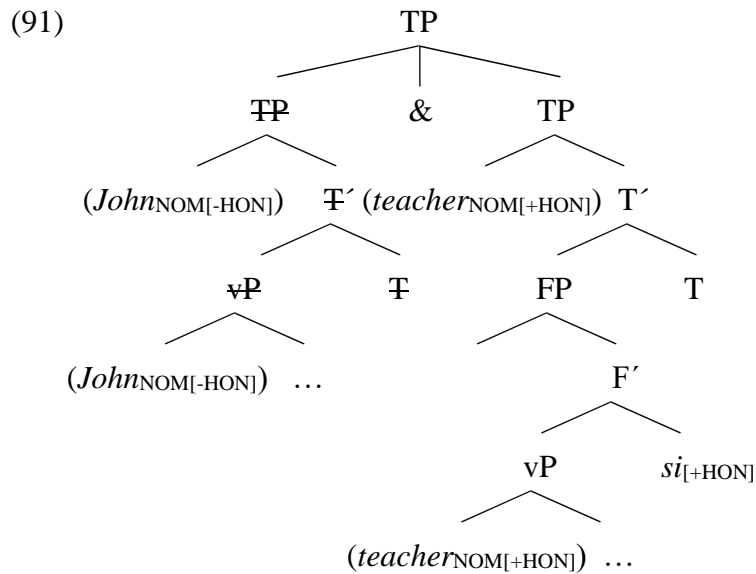
Similarly, the sentence in (89) has the derivation shown in (92) in which under the clause-mate condition, the NPI of the first conjunct is licensed not by the negation of the second conjunct, but by the one present in the first conjunct.

(92)

TP
├─ ~~TP~~
│ ├─ (*John*NOM)
│ └─ ~~T´~~
│   ├─ ~~NegP~~
│   │ └─ ~~Neg´~~
│   │   ├─ ~~vP~~
│   │   │ ├─ (*John*NOM)
│   │   │ └─ ~~v´~~
│   │   │   ├─ ~~v~~
│   │   │   └─ ~~VP~~
│   │   │   ├─ *anything*
│   │   │   └─ ~~V~~
│   │   └─ **Neg**
│   └─ ~~T~~
├─ &
└─ TP
   ├─ (*Mary*NOM)
   └─ T´
      ├─ NegP
      │ └─ Neg´
      │   ├─ vP
      │   │ ├─ (*Mary*NOM)
      │   │ └─ v´
      │   │   ├─ v
      │   │   └─ VP
      │   │   ├─ *bread*
      │   │   └─ V
      │   └─ **Neg**
      └─ T
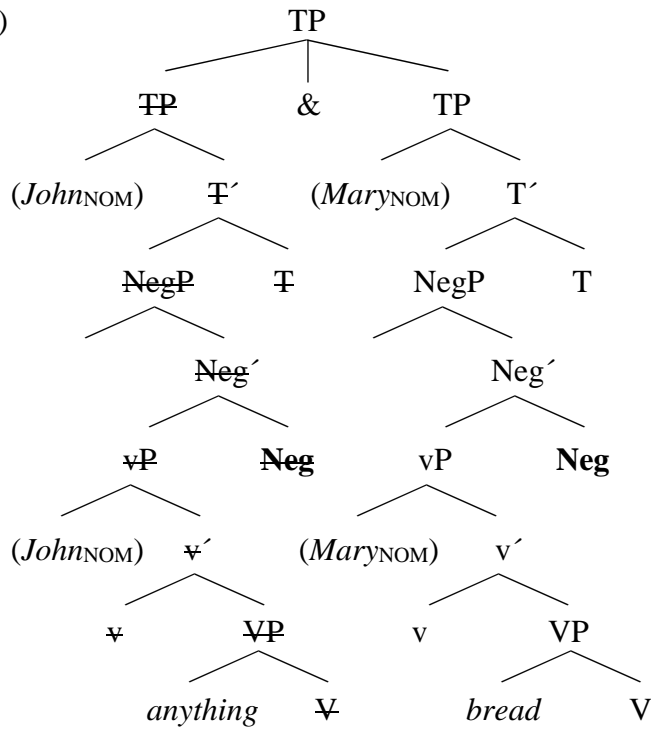
In any case, what I claim is that all the contrasts so far suggest that the presence of a prosodic break (or lack thereof) between the conjuncts plays a crucial role in accounting for various syntactic properties, similar to what happened in Spanish gapping (cf. § 3.2.1).

Taken as a whole, like Spanish (cf. § 3.2) and English (cf. Potter 2014; Frazier 2015; Potter *et al* 2015, *to appear*), there are indeed two types of gapping in Korean; otherwise, all the contrasts discussed up to now remain mysterious and inexplicable in the first place. This result, as expected, strengthens ultimately the hypothesis on the non-unity of gapping I am arguing throughout the dissertation.

4.3. Conclusion

In this chapter, I have shown that previous works that have proposed one single type of either low-coordination or high-coordination turn out to be insufficient to account for both empirical data and theoretical aspects of Korean gapping. The deletion analyses under high-coordination, on the one hand, fail to capture the wide-scope reading, which is compatible only with low-coordination that provides one single scope element for two conjuncts. In addition, this kind of analysis cannot shed light on the two potential sources of Korean gapping, which crucially depends on the presence of the tense affix (or lack thereof) in the first conjunct. On the other hand, non-deletion analyses have a number of problems to solve.

For instance, the analysis with ATB-movement of the verb, which is crucially based on low-coordination, cannot provide the narrow-scope reading, as well as its limitation to only simple gaps; i.e. ATB-movement of the verb cannot correctly derive complex gaps. The same is true for other types of non-deletion analysis such as sideward movement and Multidominance, which cannot derive the complex gaps in a satisfactory way. Contrary to all previous analyses, I have argued for a heterogenous approach to Korean gapping, whereby I have shown that, like Spanish, there are indeed two derivations for gapping (i.e. the non-unity of gapping). To be more concrete, I have proposed that one type of gapping involves low-coordination which is responsible for the wide-scope reading, whereas the other type involves high-coordination that provides the narrow-scope reading. This heterogenous approach to Korean gapping is also supported by different behaviors of NPI-licensing and honorification in the non-final conjunct, which can be explained only if gapping in Korean can involve both low-coordination and high-coordination. Finally, I have analyzed that both simple and complex gaps are the same result of deleting everything but the in-situ contrastive remnants (cf. § 3.3.2). I have also shown that the Korean data also support that my analysis in terms of deletion without movement is superior both empirically and theoretically to other types of analysis; specifically, the former does not have any difficulty to account for different types of complex gaps, which were one way or another problematic for the latter. In short, under the deletion without movement analysis, both SVO and SOV languages essentially involve the same derivation of gapping; namely by eliding all but the contrastive materials. Therefore, it is of no importance whether a language has some additional operations (e.g. object scrambling, verb movement, subject movement, etc.) in gapping sentences, because for deletion without movement to work properly, we do not need anything other than the contrastiveness on the remnants, combined with the PF-deletion, which is assumed to be applicable to all languages.

Finally, I have shown that my proposal on two types of Korean gapping has additional advantages over the previous analyses; i.e. it can account for in a principled way some syntactic phenomena such as the two instances of the sentential adverb, NPI-licensing, and honorification, which can be observed in the Korean gapping sentences.

CHAPTER 5

CONCLUSION

In this dissertation, I have studied the syntax of gapping in search of the proper analyses of this ellipsis construction. Specifically, I have explored the hypothesis that gapping is not a single phenomenon but epiphenomenon of various derivations, with the aim of capturing empirical data as well as theoretical aspects of the gapping sentences in a more satisfactory way. To be concrete, I have proposed that there are indeed two types of gapping, and each type involves a different coordinate structure: a heterogeneous approach to gapping. To support this proposal, I have investigated in depth both Spanish and Korean, showing that gapping in these typologically different languages involves more than two derivations.

In chapter 2, I have critically reviewed previous approaches to gapping, where I have shown that earlier analyses have some non-trivial problems; specifically, when analyzing the complex gaps where the elided material consists of more than the simple verb. To deal with this type of gapping sentences, previous analyses have no choice but to resort to either using unmotivated movement operations for there to be a constituent and thus movable via ATB-movement (or sideward movement), or stating that unmovable elements in the general cases can be movable in the context of ellipsis, along with the condition that the subsequent deletion process is obligatory (i.e. movement-plus-TP-deletion), despite the fact that gapping, as an instance of ellipsis, is an optional PF-operation that happens in natural language: gapping and its non-elliptical counterpart are two PF-representations of one single LF-representation after all. Moreover, I have shown that all previous analyses

are not sufficient to account for empirical data because they crucially argue that gapping involves one single type of coordination, and hence some properties of low-coordination are unaccounted for under high-coordination, or vice versa.

Thus, in chapter 3, I have claimed that gapping is not an illustration of one single phenomenon. I have first critically reviewed previous approaches to Spanish gapping, showing that they are not convincing due to the limitations of empirical coverage as well as theoretical drawbacks, e.g., to account for the complex gaps, previous analyses cannot choice but resort to unmotivated operations to accommodate the data. Alternatively, I have proposed that there are two types of gapping, depending on the type of coordination involved therein, and in so doing, the hypothesis on the non-unity of gapping has been shown to be correct both empirically and theoretically. For instance, to account for scope facts in a principled way, I have proposed that the wide-scope reading of negation (or modals) is derived from the gapping type involving low-coordination, whereas the narrow-scope reading originates from the other gapping type involving high-coordination. As for the derivation of Spanish gapping, I have proposed that the first type of gapping can be derived either by ATB-movement (in the case of cumulative agreement on the verb) or PF-deletion (in the case of non-cumulative agreement). In contrast, the second type of gapping is invariably derived by PF-deletion, a derivation which also accounts for non-canonical syntactic phenomena such as CLLD and topicalization contained in the gapping sentences. For this type of gapping, I have argued that the (im)possible word orders of the constituents can be explained in terms of syntactic principles, e.g., object shift with or without verb movement, and what I have called "minimal identity" between the conjuncts of gapping plays a crucial role in licensing the ellipsis of the verbal complex containing clitic. Finally, I have offered an alternative to the movement-plus-deletion analysis, without having recourse to movement of the remnants. Adopting Abe's (2015, 2016) in-situ approach to ellipse such as sluicing and FAs, I have proposed that gapping in Spanish involves the derivation in which the remnants (e.g. the subject and the object) do not undergo movement and receive in-situ topic and focus, and everything but the contrastive remnants is elided at PF (i.e. deletion without movement). Thus, under this type of analysis, it does not matter whether the gap forms a constituent (or not), contrary to all other movement-plus-deletion analyses, all of which struggle to do it when analyzing the complex gaps. Furthermore, my analysis does have to state that unmovable elements such as adverbials in the general cases undergo movement in context of gapping. Finally, and more generally, the current analysis

strongly argues that the application of gapping is not compulsory, as it is just as one of the many instances of ellipsis in natural language.

As an extension of the current proposal, in chapter 4, I have shown that the non-unity of gapping is also confirmed by Korean data. I have critically reviewed previous approaches to gapping in Korean, where I have shown that they fail to capture some empirical data precisely due to the homogeneous nature of the analysis they follow. In contrast, I have argued that in Korean as well, the heterogeneous approach to gapping can account for properties from both low-coordination and high-coordination. That is, I have claimed that, like Spanish, Korean also displays two different types of gapping. To support this claim, I have shown that gapping in Korean has both the wide-scope and narrow-scope readings, and then I have argued that the former reading is obtained from low-coordination, and the latter reading comes from high-coordination. I have also shown that the current proposal is further supported by NPI-licensing and honorification observed in the gapped clause, where the different behaviors of these syntactic phenomena can be explained only if Korean has indeed two different types of gapping; e.g., NPI-licensing, honorification, and the two instances of sentential adverbs in the gapped clause are compatible only with high-coordination, and thus the other type of gapping that does not allow those syntactic phenomena must thus involve low-coordination. As regards the derivation of both types of gapping in Korean, I have claimed that they can be analyzed in a unified way, namely via PF-deletion since there is no independent evidence in support of ATB-movement, contrary to Spanish where I have argued that cumulative agreement is the result of ATB-movement of the verb. Thus, I have proposed that, adopting the deletion without movement analysis, Korean gapping is derived by eliding all bit the contrastive in-situ remnants, just like what I have proposed for Spanish Type-I gapping.

To conclude, in this dissertation I have explored the hypothesis on the non-unity of gapping, and I have proved that it is confirmed by both Spanish and Korean data. I hope that the current research has contributed to better understand the syntax of gapping.

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Resumen en español

El objetivo principal de esta tesis es investigar en profundidad una de las construcciones elípticas que se observan en las lenguas naturales; el vaciado (*gapping* en inglés), que se ilustra en (1) en el que el verbo del segundo conjunto (1a) (y a veces incluyendo sus argumentos (1b) (o adjuntos (1c)) no está realizado manifiestamente en la Forma Fonética (FF), pero cuyo contenido se interpreta de manera inequívoca en la Forma Lógica (FL).

(1)   a.   Juan compró un coche, y María ___ una bici.

        b.   Juan regaló un coche a Susana, y María ___ ___ a Luis.

        c.   Juan regaló un coche a Susana para su cumpleaños, y María ___ ___ ___ para los Reyes Magos.

En la lingüística contemporánea, el gran debate sobre el vaciado consiste en los dos aspectos fundamentales; (i) ¿de qué proceso sintáctico se deriva el vaciado?, esto es, ¿es el resultado del borrado en FF (*PF-deletion*) o de algún proceso sintáctico como, por ejemplo, el llamado "movimiento paralelo" (*Across-The-Board*) (y sus variantes minimistas)?; y (ii) ¿qué tipo de coordinación tiene el vaciado?, esto es, coordinación baja (*low-coordination*) del nivel de Sintagmas Verbales (SSVV) o coordinación alta (*high-coordination*) del nivel oracional. En esta tesis pretendemos contribuir al debate en base a los datos del español y del coreano.

En el capítulo 2, revisamos de forma crítica los análisis que existen en la literatura hasta la fecha, poniendo de manifiesto los problemas de los mismos desde el punto de vista empírico y teórico. En gran medida, los análisis anteriores de vaciado se han dividido en dos; el análisis con borrado en FF, y el análisis con movimiento paralelo.

Dentro del análisis con borrado en FF, por un lado, algunos autores como Jayaseelan (1990) y Gengel (2007/2013) proponen que el vaciado tiene una coordinación alta del nivel oracional, y que el material elidido del segundo conjunto se deriva del mecanismo, borrado en FF. En concreto, Jayaseelan considera que el vaciado ilustrado en (1a) se deriva de la siguiente manera; primero los elementos remanentes (*remnants*); i.e. el sujeto y el objeto,

se desplazan del Sintagma Tiempo (ST) a unas posiciones adjuntadas al mismo, y luego el ST más interno se elide en FF. Esto se ilustra en la representación de (2).

(2)   … *y* [ST *María*ᵢ [ST ~~[ST *tᵢ compró tⱼ*]~~ *una bici*ⱼ]]

En la misma línea, Gengel (2007/2013) elabora este análisis a partir de la Hipótesis del Sintagma Complementante escindido (*Split-CP Hypothesis*), y sugiere que los remanentes del segundo conjunto se desplazan a posiciones de la periferia izquierda (*left-periphery*) de la oración, como se muestra en (3).

(3)   … *y* [STop *María*ᵢ [SFoc *una bici*ⱼ ~~[ST *tᵢ compró tⱼ*]~~]]

Sin embargo, otros autores como Coppock (2001) y Toosarvandani (2015, 2016), que también sostienen el análisis con borrado en FF, proponen que el vaciado tiene una coordinación baja, y que el SV, (y no el ST), es lo que se elide en FF. Según este análisis, entonces, la oración de vaciado que hemos visto en (1a) tiene la representación de (4).

(4)   … *y* [Sv *María* [Sv ~~[SV *compró tⱼ*]~~ *una bici*ⱼ]]

Así pues, todos estos análisis comparten en esencia la idea de que el material elidido en el vaciado resulta de elidir una proyección sintáctica en FF después de una serie de movimientos a posiciones externas a dicha proyección, aunque esta difiere de uno a otro según lo visto anteriormente; esto es, SV *vs*. ST.

No obstante, se ha señalado que el vaciado se comporta de manera diferente que a otras construcciones elípticas como, por ejemplo, la elipsis de SV (*VPE*), y el seudo-vaciado (*pseudogapping*) que se observan en lenguas como el inglés. En particular, la distribución sintáctica de vaciado no es la misma que en estas construcciones. Esto es precisamente lo que ha llevado a algunos autores (p.ej. Johnson 1996/2004, 2009; Agbayani y Zoerner 2004; Citko 2012, e.o.) a pensar que el vaciado no es el resultado de borrado en FF. Johnson (1996/2004, 2009) fue el primer autor que propuso que el vaciado resulta de la aplicación del movimiento paralelo en contextos de coordinación baja; esto es, una coordinación del nivel de SSVV. Según este análisis, el material elidido en el segundo conjunto de (1a) viene como resultado del movimiento paralelo del SV a la posición de especificador (Espec) del Sintagma Predicado (SPred), después de que los sintagmas

nominales (SSNN) del objeto hayan abandonado el SV en ambos conjuntos. Este proceso se representa en (5).

(5)   [ST *Juan*k [SPred [SV *compró h*i]j [Pred′ [SV *h*k *h*j *un coche*i] y [SV *María h*j *una bici*i]]]]

Mediante esta propuesta, Johnson pretende dar cuenta del hecho observado desde Hankamer (1979) de que el vaciado no puede darse en oraciones subordinadas ("*No-Embedding Constraint*"), como se ejemplifica en (6) con los datos del inglés.

(6)   a.   *Alfonse stole the emeralds, and I think that Mugsy ___ the pearls.
       b.   *I think that Alfonse stole the emeralds, and Mugsy ___ the pearls.

                                                                    (Hankamer 1979: 19, (23))

Como el vaciado se analiza por el movimiento paralelo en coordinación baja, se espera que tanto el hueco (*gap*) como su antecedente no puede aparecer en contextos subordinados.

       Asimismo, los autores que defienden la coordinación baja (p.ej. Johnson 1996/2004, 2009; Coppock 2001; Toosarvandani 2015, 2016) señalan que en contextos de vaciado, la única manera de obtener la lectura de negación (o modal) con alcance amplio (*wide-scope*) es por medio de dicha coordinación en la que la negación (o modal) aparece en una posición sintáctica por encima de la coordinación, de manera que la negación toma siempre a los dos conjuntos bajo su abarque, como se ilustra de manera esquemática en (7).

(7)   [… Negación/Modal … [SV S V O] y [SV S __ O]]

       Sin embargo, como se ha anotado en varios trabajos anteriores (p.ej. Oehrle 1987; Oirsouw 1987; Siegel 1984, 1987; McCawley 1993; Johnson 1996/2004, 2009, 2014, e.o.), existe también otra interpretación de negación (o modal) con alcance estrecho (*narrow-scope*), que es igualmente posible en oraciones de vaciado. Asumiendo una coordinación baja, evidentemente, dicha interpretación no se puede obtener en ninguna circunstancia y, por lo tanto, los análisis anteriores se enfrentan a dificultades a la hora de obtener la lectura con alcance estrecho que se está discutiendo.

       Los proponentes del análisis con coordinación alta, por el contrario, consideran que el vaciado es un ejemplo de la elipsis oracional en FF, y se deriva de la misma que otras

muchas construcciones elípticas como el truncamiento (*sluicing*), el desnudamiento (*stripping*), y las respuestas fragmentarias (*fragment answers*), puesto que el material elidido en todas estas construcciones es el ST. Sin embargo, estos análisis, que no han presentado ninguna atención a diferentes posibilidades de abarque en contextos de vaciado, tienen serios problemas para explicar la interpretación de negación con alcance amplio mencionada anteriormente. Como se representa en (8), el análisis con coordinación alta puede obtener únicamente la lectura con alcance estrecho, dado que la negación (o modal) del primer conjunto no toma nunca el segundo conjunto bajo su dominio de abarque.

(8)   [$_{ST}$ … Negación/Modal … [$_{Sv}$ S V O]] y [$_{ST}$ S __ O]

Si asumimos que las interpretaciones semánticas vienen exclusivamente de las estructuras sintácticas correspondientes (cf. Chomsky 1965), la falta de explicación para la lectura con alcance amplio es un problema serio para los análisis previos con coordinación alta. Lo mismo puede decirse para los análisis con coordinación baja, que puede dar cuenta sólo de la lectura de negación con alcance amplio.

Más importante aún, el problema principal de todos los análisis anteriores que hemos mencionado hasta ahora es que tanto el borrado en FF como el movimiento paralelo deben estipular, de una manera u otra, el movimiento de los remanentes, que típicamente no es posible cuando no hay vaciado, para dar cuenta de los ejemplos de vaciado complejo en los que el material elidido incluye argumentos o adjuntos continuos o discontinuos en las oraciones correspondientes sin vaciado.

En resumidas cuentas, todas las aproximaciones anteriores al vaciado, que pretenden derivar el fenómeno en base a un solo tipo de coordinación (alta o baja) y con un solo mecanismo (borrado en FF o movimiento paralelo) tienen dificultades a la hora de dar cobertura empírica al fenómeno.

Como alternativa, en esta tesis proponemos una aproximación heterogénea al vaciado en la que este fenómeno es el resultado de diferentes mecanismos (borrado en FF o movimiento paralelo) en diferentes tipos de coordinación (alta o baja). En resumen, el vaciado no es una ilustración de un único fenómeno; es decir, es un epifenómeno de más de una derivación sintáctica. Con este fin, proponemos que existen en realidad dos tipos de vaciado, con sus propiedades sintácticas y prosódicas bien distintas. Al mismo tiempo se demuestra que nuestra propuesta es correcta no solo al nivel teórico, sino también

empíricamente, y llevamos a cabo una investigación pormenorizada de vaciado tanto en español como en coreano.

El capítulo 3 nos centramos en examinar en detalle el vaciado en español. Primero, presentamos una serie de datos que muestran que el vaciado en español puede tener o bien coordinación baja o bien coordinación alta. A modo de ilustración, datos como los de (9) muestran que, debido a la lectura de negación con alcance amplio, el vaciado tiene que implicar una coordinación baja, mientras que los datos de (10) indican que deben poseer la coordinación alta del nivel oracional para poder explicar (i) la lectura de negación con alcance estrecho (10a); (ii) la posibilidad de aparecer en contextos subordinados (10b); y (iii) la posibilidad de legitimar los Términos de Polaridad Negativa (TPNs) (10c).

(9)   No puedo pedir yo marisco y María carne de cerdo.

(10)   a.   Yo no puedo pedir marisco, y María carne de cerdo.
        b.   Juan pidió marisco, y creo que María carne de cerdo.
        c.   Juan pidió marisco, y María ningún plato.

Asimismo, mostramos que los análisis previos (Brucart 1987 y Centeno 2011) de vaciado en español no son adecuados tanto al nivel teórico como empírico para explicar los propiedades del fenómeno. En particular, desde el punto de vista empírico, ambos análisis tienen serios problemas a la hora de considerar las oraciones de vaciado que contienen los huecos complejos.

Posteriormente, presentamos nuestra propuesta según la cual el vaciado en español resulta de dos mecanismos derivativos y niveles de coordinación distintos. Precisamente, proponemos que el primer tipo de vaciado al que llamamos "Tipo-I", ilustrado en (11) en el que no hay ninguna pausa prosódica entre los dos conjuntos coordinados, implica una coordinación baja, y se deriva o bien del borrado en FF (12) cuando la concordancia verbal es singular (o no acumulativa), como en (11a), o bien mediante el movimiento paralelo (13) cuando la concordancia en el verbo es acumulativa, como en (11b).

(11)   a.   No puedo pedir yo marisco y María carne de cerdo.
        b.   No podemos pedir yo marisco y María carne de cerdo.

(12)   … y [sv *María* ~~pedir~~ *carne de cerdo*]

(13)   [ST [T′ *No podemos pedir*ᵢ [Sᵥ *yo h*ᵢ *marisco*]ⱼ *y* [Sᵥ *María h*ⱼ *carne de cerdo*]]]

Argumentamos que un análisis híbrido dentro de la coordinación baja es necesario para dar cuenta, entre otros, del contraste en (14) en el que la pronunciación del verbo léxico en el segundo conjunto es opcional en el caso de la concordancia no acumulativa (14a), mientras que resulta obligatoria no pronunciarlo en el caso de la concordancia acumulativa (14b)

(14)   a.   No puedo pedir yo marisco y tú (pedir) carne de cerdo.
       b.   No podemos pedir yo marisco y tú (*pedir) carne de cerdo.

Para el segundo tipo de vaciado al que denominamos "Tipo-II", que se ilustra en (15) en el que se observe una clara pausa prosódica entre los dos conjuntos coordinados, proponemos que requiere una coordinación alta y, por lo tanto, se debe derivar del borrado en FF, como se refleja en la representación de (16).

(15)   Yo no puedo pedir marisco, y María carne de cerdo.

(16)   … *y* [ST *María* ~~*no puede pedir*~~ *carne de cerdo*].

Asimismo, argumentamos también de manera detallada que en aquellos casos en los que aparecen fenómenos sintácticos no canónicos como dislocación a la izquierda con clítico y topicalización; p.ej., *El coche lo compró Juan, y la bici, María/Dinero heredó Juan, y acciones, su hermano*, las oraciones de vaciado tienen que implicar una coordinación alta, teniendo en cuenta la sintaxis de ambos fenómenos en oraciones sin vaciado. Además, en nuestro análisis proponemos un procedimiento de borrado alternativo en el que, adoptando fundamentalmente el análisis in-situ de Abe (2015, 2016) sobre el truncamiento y las respuestas fragmentarias, no hay movimiento sintáctico para los remanentes, y la elisión fonética afecta a todo el sintagma excepto los elementos contrastivos, como se ilustra en (17).

(17)   … *y* ~~[ST~~ *María*[Tópico] ~~*no puede pedir*~~ *carne de cerdo*[Foco]~~]~~.

Por ello, la ventaja de nuestro análisis es que no es necesario asumir ningún movimiento estipulativo para los remanentes, que es típicamente imposible en contextos donde no hay vaciado. Nuestro análisis por lo tanto permite dar cuenta de tanto los huecos simples como los complejos sin recurrir a las operaciones del movimiento poco motivadas empíricamente. En pocas palabras, como muestran los resultados de nuestra investigación sobre el vaciado en español, necesitamos todos los mecanismos aludidos en (12), (13), y (16) para poder dar cuenta de manera adecuada de los distintos tipos de vaciado en esta lengua.

Como una extensión de nuestra propuesta elaborada a lo largo del capítulo anterior, examinamos en el capítulo 4 el vaciado en coreano, en el que el material elidido aparece típicamente en el primer conjunto de la coordinación (*backward gapping*) (18), debido a que es una lengua con núcleo final estricto (según la división tipológica de Ross 1970).

(18) John-i   sakwa-lul ___ kuliko Mary-ka   orange-lul   mek-ess-e.
John-NOM manzana-ACUS y   Mary-NOM naranja-ACUS comer-PAS-DEC
'Juan ~~comió~~ manzanas, y María comió naranjas'

Para el vaciado en coreano, existen también dos tipos de análisis con diferentes niveles de coordinación; esto es, análisis con borrado en FF, y análisis con movimiento paralelo.

Para algunos autores que defienden el análisis con borrado en FF, el vaciado en coreano es una consecuencia de la elisión en una coordinación alta, de manera que el hueco del primer conjunto de (18) se deriva del proceso de movimiento de los remanentes seguido del borrado en FF, o bien del SV (Sohn 1994, 1996, 2001) (19a) o bien del ST (Kim 1997, 1998, 2006; An 2007, 2015, 2016) (19b).

(19)   a.   [ST *John-i*ᵢ [sᵥ ~~*h*ᵢ *mek-ess-e h*ⱼ~~] *sakwa-lul*ⱼ] …
      b.   [ST *John-i*ᵢ *sakwa-lul*ⱼ [sт ~~*h*ᵢ *mek-ess-e h*ⱼ~~]] …

Como implican estos análisis una coordinación alta, pueden captar de manera natural la lectura de negación con alcance estrecho que se observa en (20i), pero precisamente debido a dicha coordinación, no pueden dar cuenta de la lectura con alcance amplio en (20ii)

(20) John-i   sakwa-lul ___ kuliko Mary-ka   orange-lul
John-NOM manzana-ACUS y   Mary-NOM naranja-ACUS

mek-ci   ani-ha-ess-e.

comer-CI NEG-hacer-PAS- DEC

(i) 'Juan no comió manzanas, y María no comió naranjas'

(ii) 'No es el caso de que Juan comiese manzanas y María comise naranjas'

Por esa razón, algunos autores como Lee (2005) proponen que el vaciado en coreano tiene una coordinación baja, y que el hueco del primer conjunto de (18) se deriva del movimiento paralelo del verbo a T, como se ilustra en (21).

(21)   [$_{ST}$ [$_{Sv}$ *John-i sakwa-lul t*$_i$] [$_{Sv}$ *Mary-ka orange-lul t*$_i$] *mek*$_i$*-ess-e*]]

Así se obtiene la lectura de negación con alcance amplio. Sin embargo, como cabe esperar, en este análisis no se da cuenta de la lectura en (20i) debido al tipo de coordinación que se asume. Asimismo, el problema más grave al que se enfrenta este tipo de análisis con movimiento paralelo del verbo es que no puede derivar de manera adecuada los ejemplos de vaciado que tienen huecos complejos, puesto que no hay manera de generarlos mediante dicho movimiento, teniendo en cuenta que el coreano es una lengua de núcleo final.

En resumidas cuentas, los análisis anteriores de vaciado en coreano son claramente de naturaleza homogénea y dejan algunas propiedades del fenómeno sin explicar.

Para resolver este dilema, examinamos una aproximación heterogénea al vaciado en coreano. Mostramos primero que existen también dos tipos del vaciado en esta lengua. En el primer tipo de vaciado, por una parte, se observa que los dos conjuntos de la coordinación tienen sujetos en nominativo, como hemos visto en (20), y en este caso la oración puede proporcionar tanto la lectura de negación con alcance amplio (20ii) como la lectura con alcance estrecho (20i). Para este tipo de vaciado en coreano, argumentamos que la primera interpretación viene de la coordinación baja, mientras que la secunda se origina de la coordinación alta. De esta forma, las dos lecturas de abarque se explican por medio de los distintos tipos de coordinación.

En cambio, en el segundo tipo de vaciado que está ilustrado en (22), los dos conjuntos de la coordinación tienen sujetos con marca de tópico, y la negación que aparece en el segundo conjunto toma sólo abarque estrecho dentro del mismo, de modo que la lectura de negación con alcance amplio resulta imposible en este tipo de vaciado en coreano. Así pues,

la oración de vaciado ilustrada en (22) debe tener una coordinación alta y producir sólo la lectura con alcance estrecho.

(22) John-un   sakwa-lul ___   kuliko Mary-nun orange-lul
      John-TOP manzana-ACUS y   Mary-TOP naranja-ACUS
      mek-ci   ani-ha-ess-e.
      comer-CI NEG-hacer-PAS- DEC
      (i) 'Juan no comió manzanas, y María no comió naranjas'
      (ii) *'No es el caso de que Juan comiese manzanas y María comise naranjas'

Asimismo, para mostrar que algunos ejemplos de vaciado en coreano implican también una coordinación alta, presentamos datos como (23) y (24) donde el material elidido tiene su antecedente en contextos subordinados y, por ende, no puede haber coordinación baja para estos tipos de vaciado en coreano.

(23) John-i   sakwa-lul ___, kuliko na-nun Mary-ka   orange-lul
      John-NOM manzana-ACUS y   I-TOP   Mary-NOM naranja-ACUS
      mek-ess-ta-ko   sangkakha-e.
      comer-PAS-DEC-que pensar-DEC
      'Juan ~~comió~~ manzanas, y yo creo que María comió naranjas'

(24) Na-nun John-i   sakwa-lul ___, kuliko Bill-nun Mary-ka   orange-lul
      I-TOP   John-NOM manzana-ACUS y   Bill-TOP Mary-NOM naranja-ACUS
      mek-ess-ta-ko   sangkakha-e.
      comer-PAS-DEC-que pensar-DEC
      'Yo ~~creo que~~ Juan ~~comió~~ manzanas, y Bill cree que María comió naranjas'

Tal y como acabamos de ver, concluimos que, en coreano, se requieren dos derivaciones diferentes para dar cuenta de los distintos tipos de vaciado. Así pues, proponemos que, asumiendo nuestro análisis con borrado en FF sin movimiento de los remanentes, la lectura de negación con alcance amplio en (20ii) implica una coordinación baja, y se deriva de la manera ilustrada en (25a). En cambio, las lecturas con alcance estrecho en (20i) y en (23i), así como los ejemplos de vaciado con antecedentes en contextos subordinados, se derivan del borrado en coordinación alta, como se ilustra en (25b).

(25)　a.　　　[ₛᵥ *John-i* [Tópico] ~~*mek-ess-e*~~-*sakwa-lul*[Foco]] …

　　　b.　　　[ₛₜ *John-i* [Tópico] ~~*mek-ess-e*~~-*sakwa-lul*[Foco]] …

De esta manera, se explican diferentes interpretaciones de abarque de negación. Asimismo, demostramos que otros fenómenos sintácticos, tales como por ejemplo la apariencia de un adverbio temporal en cada conjunto, la legitimación de los TPNs, y la honorificación, que pueden observarse en contextos de vaciado en coreano, se explican principalmente por las diferentes derivaciones de vaciado, con fundamentos teóricos de cada derivación.

En definitiva, en este capítulo e la hipótesis principal de esta tesis sobre la no unidad de vaciado (*the non-unity of gapping*) queda confirmada por los datos del coreano.

En conclusión, en esta tesis hemos defendido que, a la luz de los datos del español y del coreano, el vaciado no es un único fenómeno, sino una manifestación de diferentes derivaciones sintácticas.