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Exploring the Left Periphery:
the cases of Korean and Spanish

MI-KYUNG, LEE

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BELLATERRA, DICEMBER 2019

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Chapter 1

1.1 Introduction

The aim of this dissertation is to investigate what similarities and differences are between Spanish and Korean with respect to the articulation of the so-called Left Periphery (cf. Rizzi 1997 and ff.). In this dissertation, I discuss the morphological, phonological and syntactic characteristic of those two languages, focusing on the most relevant aspects for left periphery-based phenomena. As will be made clear, I will also consider new empirical evidence and, along with that, new theoretical questions to be considered.

The '*Left Periphery*' refers to a rich clause initial (and topmost) articulation of projections. It is typically used to cover clause internal elements that receive (or trigger, depending on one's viewpoint) a specific discourse effect when displacement occurs. In Rizzi (1997 and ff.) it is standardly assumed that the left periphery contains a set of a 'dedicated' positions that go hand in hand with spceicif scope and-discourse effects: focus, topic, relative, modifier, etc.

The goal of this dissertation is twofold. On the one hand, we aim at providing a careful and precise **description** of the left periphery of Korean (i.e., how topics, foci, *wh*-movement, modality and similar dependents). On the other hand, we want to explore, from a comparative perspective, the degree of **variation** that an Altaic language such as Korean displays with respect to a Romance language like Spanish—and, to a lesser extent, Germanic languages too.

Of course, both goals, though modest and down-to-Earth in and of themselves, have a more ambitious dimension, in the sense that has become customary within what Baker (2010) calls "formal-generative typology" (cf. also Kayne 2000, 2005, Biberauer et al. 2010, Eguren et al. 2016, Picallo 2014, among others), namely the assumption that the understanding of a given language can help us understand UG (the language faculty as such) better.

As a starting point to dicuss the left periphery, the following examples in English show that this a simple syntactic transformation gives rise to semantic effect associated to the presence of pragmatic-related functional projections associated to what Uriagereka 1988, 1995, called F); Q, Topic, and Focus as indicated by Rizzi (1997)'s Cartographic Project:

(1) a. Which book   Q   should you read <which book>?   (English)

     b. This book   TOP   you should read <this book> tomorrow

c. THIS BOOK   FOC   you should read <this book> (, not that one)

<div align="right">[from Rizzi 2013: 200]</div>

(2) a.[CP [Force [Top* [Foc [Top* [Fin...]]]]]]

<div align="right">[from Rizzi 1997: 288]</div>

   b. [CP [Force [Top* [Int [Top* [Foc [Top* [Mod [Top* [Q_{emb} [Fin [$_{IP}$ . . .]]]]]]]]]]]]]

<div align="right">[from Rizzi & Bocci 2015: 8]</div>

The data and analyses in (1) imply that the left periphery contains the positions created by a system of functional heads or operators (e.g., Q, Top and Foc) and it is generally assumed to have a semantic-discourse scope by movement (Internal Merge, in current terminology; cf. Chomsky et al. 2019).. This phenomena have a parallel in Spanish (and other language), with which we compare (here except for relative and exclamative clause to avoid confusion in the discussion, even though these elements have also semantic effects in CP field, as illustrated in (3):

(3) ¿Qué libro   has comprado?   (Spanish)

   which book have-2.sg. bought?

  a. ¿[$_{FocP}$ Qué libro$_i$ Q   [$_{TP}$ has comprado   t$_i$]]?

  c. [$_{TopP}$ El libro$_i$ Top,   [$_{TP}$ lo he comprado   t$_i$]]

  d. ¡ [$_{FocP}$ EL LIBRO$_i$ Foc   [$_{TP}$ he comprado   t$_i$]]!

<div align="right">[from Gallego 2011: 42]</div>

As is well observed, in Spanish, the whole sentence receives a specific scope-discourse interpretation by placing a constituent within a clause to this dedicated clause-initial position. In doing so, the word order is subject to changes, and we get a specific clause types.

   In the research of many Romance languages, including Rizzi (1997), the sentential left peripheries of CP and other functional categories such as VP (VP periphery of Belletti 2004, 2005) or DP are considered domains associated to semantic effects. At this point, an important point out that this dissertation makes is that, Romance languages obligatorily guarantee the use of the left periphery for discourse effects. However, in the case of Korean, the fact that in-situ elements in bold letters sufficiently convey discourse effects is captured by the following examples as in (5a, c and d). Moreover, the morpheme '*-neun*', so-called

topic marker, transmits special meanings regardless of the position of any element in a sentence as in (5b and 5c):

(4) Totoro-ga dotori-eul gajyeoga-ss-da   (Basic word order: SOV)   (Korean)

   Totoro-NOM acorn-ACC take-PST-D.

   'Totoro took the acorn.'

(5) a. Totoro-ga   **DOTORI-LEUL**   gajyeoga-ss-da (nae usani amigo)   (Focalization)

      Totoro-NOM   ACORN-ACC   take-PST-D (my umbrella no)

     'Totoro took the ACORN (not my umbrella)'

   b. Dotori-neun   Totoro-ga   gajyeoga-ss-da   (Topicalization)

      acorn-TOP   Totoro-NOM take-PST-D

      'As for the acorn, Totoro took it.'

   c. Totoro-ga **dotori-neun** gajyeog-ass-da (nae usani amigo)   (Contrastive Focus)

      Totoro-NOM acorn-TOP take-PST-D (my umbrella no)

       'Totoro took the ACORN (not my umbrella)'

   d. Totoro-ga   **mueos-eul**   gajyeoga-ss-ni?   (Interrogative)

      Totoro-NOM   what-ACC   take-PST-Q

       'What did take Totoro?'

In this regard, it is expected that the adduced data of Korean does not fit well into the Cartography Project, which is assumed as an array of universal functional projections on the basis of cross-linguistic studies (cf. Cinque 1999).. Thus, the question naturally will arise as to whether, in Korean, the CP layer exists and how in-situ elements and 'XP-neun' can reach a left peripheral position to trigger the relevant semantic effect. On the other hand, in Spanish, may be raised a question as to whether the only movement of an element gives a discourse effect or directly lexical insertion. Furthermore, the questions about how the relationship between clitics, which are unique phenomena in Romance languages, and topicalization in Spanish (i.e., Clitic Dislocation) are analyzed will be addressed in this work.

   In the light of the facts that have already been reported in the literature, I attempt to account for why such a difference is found between Korean and Spanish, and connect this state of affairs to a parametric difference between these two languages. In particular, I argue that covert movement makes a difference between Korean and Spanish with respect to the left

periphery, and that A and A-bar hybrid properties in FinP derive the non-standard binding effects of scrambling, covert movement of in-situ elements, as well as ambiguous cross-over effects in topicalization of Korean. Before providing a more concrete characterization of our proposals, I provide some basic morphological and syntactic knowledge based on the typological differences between Korean and Spanish. In addition, there will be a discussion on how word order formation of Korean can be derived syntactically. The characteristics revealed by these discussions will be capitalized on our proposal in chapter 5. The other chapters of this dissertation are organized as follows:

In Chapter 2, I discuss agglutinative properties, such as SOV word order, postposition, which appear in Altaic language family. Based on this data, special properties of Korean such as its particle system, several types of connectors (i.e., complementizers), numeral classifiers, and verb endings will be introduced. It also discusses other syntactic properties of Korean such as *pro*-drop, subject-verb agreement, honorific system, wh-in-situ and case-drop phenomena. As will be seen, the discussions on what is different between two languages in terms of *pro*-drop phenomena, and how the subject-verb agreement works differently is provided. Also, a relevant analysis of the syntactic properties observed in Korean is introduced.

In Chapter 3, there is an overall discussion of how word order in Korean is formed under Kayne's (1994) LCA-type approach as a comparative methodological tool between two languages. Although there are non-trivial controversies under LCA-approach that the [DO-V] word order must be derived by object shifting, the relevant empirical evidence that objects and verbs are readily separated by adverbs insertions such as [O adv V] in Korean, whereas English requires a strict V-O adjacency between verb and object such as [V *adv O] following Zwart (1992) and Neeleman (2015), are provided in this chapter. However, it is expected that it will be difficult to find empirical evidence with respect to the [CP-V] order.

   The grounds for no verb movement will be provided and the overall word order formations of inflectional verb morphemes part are introduced under several perspectives. I will suggest 'roll-up movement' (Koopman 2005) and 'PF merge' (Takano 2004) considering the right side of verb part.

In Chapter 4, I provide empirical evidence showing differences and similarities of wh-interrogatives, Topic and Focus dependencies observed in between the two language types. In

particular, I will examine the characteristics of Korean scrambling and Topic marker '*-neun*', in an attempt to find the same phenomenon in Topicalization in Spanish and Korean. Besides, there is also a discussion as to whether the Wh-phrases, Topic and Focus are subject to certain constraints when they occur together. Finally, I provide the structure of Force-Fin system in Korean, in which Topic and Focus are sandwiched, based on the Saito's (2010) suggestions. I assume that this system is on the right side unlike Romance languages, in which this sandwiched force-finite system appears on the left side of a clause.

In Chapter 5, a discussion is provided on how variations within left periphery found in Korean and Spanish are applied to phonology, morphology and syntax as parameters. Most of all, in this dissertation, I will focus on the syntactic parameter. Reminding that the in-situ focus/wh/top and scrambling in Korean, which are not well compatible with Cartography Project, I claim that covert movement (in Korean) and a clitic system under the Big-DP hypothesis (Torrego 1988, Uriagereka 1995) are play a role as parameters teasing apart Spanish and Korean. Specifically, in order to demonstrate that covert movement is at work, I make use of binding and island constraints tests. I submit that a hybrid A / A-bar feature derives the covert movement of in-situ elements, non-standard cross-over effects of scrambling and lack/ ambiguous cross-over effects of topicalization in the light of the facts found in the binding tests. As a subpart, I provide an interesting data that head movement creates the space of the morpheme'*-neun*', which gives scope-discourse semantics, in the aspectual construction. This fact may be cross-linguistically generalization, inspired by Gallgo's (2010) suggestion, in which verb movement in Spanish activates the left periphery. Finally, I conclude this dissertation, proposing that the hybrid A / A-bar nature in FinP confirms a uniform system in the left periphery between two languages based on the fact that CLLD/FF/Wh in Spanish and scrambling, in-situ, topicalization all have contrastive readings, capitalizing on the idea of Gallego (2010) and López (2009), Villalaba (2000).

Chapter 6 summarizes and concludes the discussions of previous chapters.

Chapter 2

Basic properties of the Korean language

2.1. Introduction

This chapter explores the basic morphological and syntactic properties of Korean based on its linguistic typology and possible word order such as scrambling, multiple subject, object construction and *pro* drop phenomena. The information provided in this chapter will enable the readier to acquire the syntactic and morphological nature of the Korean sentences discussed in the upcoming chapters. Discussion is organized as follows: In section 2.2., I examine an overview of the Korean language from a perspective of its linguistic typology. Subsection 2.2.1 focuses on agglutinative properties, such as particles, numeral classifiers, and infelectional verbal endings that are glued after nouns and verbs as post-noun and post-verb forms in Altaic languages unlike Romance languages. In the subection 2.2.2, they syntactic properties of the Korean language are discussed and the differente types of word order sentences with discourse effects, which will be the main subject of our discussions, will be briefly introduced. Finally, section 2.3. gives the main conclusions.

2.2. Previous considerations

This section investigates the basic background of linguistic typology with respect to the Korean language. To better understand its nature, I would like to approach the linguistic classification that categorizes the morphological properties, from a comparative linguistics perspective (Bloomfield 1914, Sapir 1921, 1939, Eifring & Theil 2005: Chapter 4, Whaley 1997: Chapter 8), as depicted in (1):

(1)


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            ┌──────────────────────────────────────┐
            │  The Linguistic Morphological Typology │
            └──────────────────────────────────────┘
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●Analytic
●Synthetic

●Isolating

Fusional Agglutinative Polysynthetic Oligosynthetic

Synthetic strength of morphemes
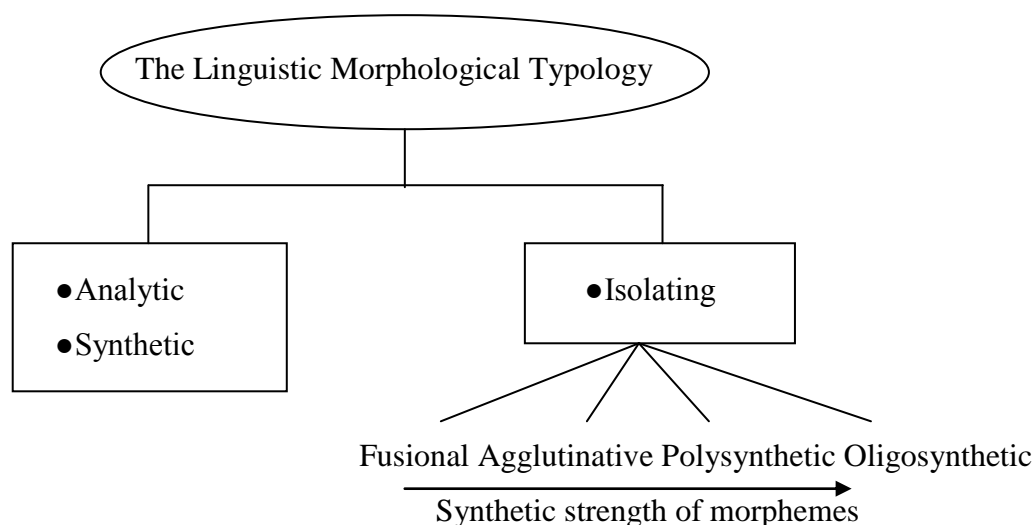
As can be seen in (1), that category is divided into two large groups: (i) the analytical / isolating[1] and (ii) synthetic language[2], whereby classification depends on the morpheme ratio per word and the degree of fusion between morphemes. The former is a language with a low proportion of morphemes per word. To better understand the difference between them, I suggest the extreme cases, such as the examples of isolating and polysynthetic languages, as in (2) and (3):

(2) Isolating language

tā   zài   túshūguǎn   kàn   bào   (Mandarin Chinese)

he   at   library   read   newspaper

'He's   at the library reading a newspaper'

[from Li and Thompson 1981]

(3) Polysynthetic language

Ni-mitz-tē-tla-maqui-ltī-z   (Nahuatl)

I-you-someome-something-give-CAUSATIVE-FUTURE

---

[1] Isolating languages and analytic languages, convey grammatical relations without the use of inflectional morphemes and with the use of the proportion or morphemes per word.To distinguish between the two types of languages, only analytic ones can have derivational morphemes: when they are combined with a root, they change the semantic meaning. For example, in English "unkind", "un-" functions as a derivational morpheme to invert the meaning of the word "kind".

[2] However, there are other linguistic classifications, such as fusional, agglutinative and polysynthetic, which are based on how morphemes are combined. Traditionally, these were subdivided into three basic types: isolating, inflectional, agglutintive.

'I shall make somebody give something to you'

[from Suárez 1983: 61]

As in (2), there is no affixation, and these sentences consist of a single word or have only free (or unbound) morphemes, (so-called monomorphemic). In contrast to this, the data (3) shows that the sentences are derived by multiple affixes, but regardless of grammatical category.

In the case of Korean, which belongs to agglutinative languages, a sentence is formed by many affixes, like Nahuatl. However, bound morphemes should be added by grammatical categories, such as NP, VP, and PP, etc. Thus, there is somewhat difference between polysynthetic and agglutinative languages. Let us consider the following sentence:

(4) Agglutinative language

Totoro-ga	san-eseo	dotori-leul	juwo-ss-da	(Korean)
Totoro-NOM	moutain-in	acorn-ACU	pick-PST-DEC	

'Totoro picked up acorns from the mountain'

Unlike in polysynthetic languages, in which verbs, nouns, pronouns and grammatical affixes are all combined to form a sentence, sentences in agglutinative languages complete a clause, whereby grammatical suffixes (i.e., bound morphemes or particles for nouns and endings of verbs [3]) –*i/-ga* (nominative case particle), -*eseo* (locative particle), and –*(l)eul* (accusative particle), respectively, are attached to their nouns to create NP and PP, also -*ass* (past ending) and -*da* (declarative verbal mood ending) to their verb stem *bo-* (see) to form VP.

Apart from this, the data in (5) and (6) indicate what is different between fusional and agglutinative languages. One representative property of agglutinative languages is that the morphemes which occur in a word are easily segmentable. Consider the Korean data (5):

(5) bad-da   receive-Declarati(Korean)

    bad-ass-da   receive-Past-DEC

    bad-ass-gess-da   receive-Past-Conjecture-DEC

    bad-ass-gess-da-deo-gun-yo receive-PST-CON-DEC-Indirect-Exclamative-Polite Ending

---

[3] In Korean, the 'particle' function for nouns and the 'ending' is only used for verbs or adjectives stem, and respectively are called *josa* and *eomi* in Korean.

As seen in (5), one constituent also has one functinonal category, thus, numerous bound morphemes can attach to a word base and this is readily identified. There are no cases in which one constituent has one more grammatical meaning.

By contrast, in the case of a fusional language such as Spanish, the boundaries between its morphemes are hard to determine or one constituent has one or more grammatical function, as illustrated in (6):

(6) mir-é   1S: PAST: IND (I looked)   (Spanish)

    mir-ó   3S: PAST: IND (She/he looked)

    mir-a   3S: PRES: IND (She/he looks)

[from RAE-ASALE. 2009: 49]

The above example is the verb conjugation in Spanish and this shows that the several grammatical meanings are blended or fused into a morpheme, such as ' *'-é'*, *'-ó'*, *'-a'*: the person and number of the subject, the tense, and the mood (indicative, or subjunctive)[4].

All these characteristics, which we have studied just before, show that Korean is representatively an agglutinative language. Each word bears correctly its function in a sentence, and by virtue of this property, the meaning of a sentence can be maintained despitethe   word order changing. The following shows that the word order changing in English does not make sense:

(7) a. I have a beautiful picture   (English)

    b. *a beautiful picture have I

---

[4] There is another analysis as agglutive languages, such as the verb 'cant-á-ba-mos' (we sang):

(8) a. cant-ábamos   2P: IMPERFECT PAST: IND

    b. cant^{root}-á^{TV}-ba^{TM}-mos^{PN}

[from RAE-ASALE. 2009: 50]

That is, the *'-ábamos'* (8a) is segmented as three part '-á' (Thematic Vowel), *'-ba'* (Tense and Mood), '-*mos'* (Person and Number) to the verb root *'cant-'*, as seen in (8b). Viewed from this angle, this segmentation is similar to an agglutinative language, in which the morphemes are easily segmentable and one morpheme has one grammatical category

Contrary to English, in Korean it can be easily understand by means of particles, as follows in (8):

(8) a. Na-neun   areumdaun   geurim-eul   gajigo iss-da.   (Korean)
    I-TOP   beautiful   picture-ACC   have-DEC

   b. areumdaun geurim-eul   gajigo iss-da,   Na-neun.
    beautiful   picture-ACC   have-DEC   I-TOP

The grounds on which Korean is considered an agglutinative language are defined in the National Institute of the Korean Lanaguage (NIKL)[5], as follows:

> "The language that Koreans speak is, from the morphological point of view, an agglutinative language; genealogically, it is usually considered to belong to the Altaic language family. Geologically, it is used through the Korean peninsula and all the islands that surround the Korean peninsula, starting with the island of Jeju[6]. The grammatical order of sentence consistents is SOV, that is, subject-object (or complement)-predicate. The modifiers generally precede the modified words."

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[5] According to NIKL, the Korean Romanization system to display pronounciation must follow the Revised Romanization method inseted of the McCune-Reischauer system. In this work, I will follow RR, for example, I use the nominative case marker *-ga* instead of *-ka*. (Song 2005: 89 and http://www.korean.go.kr/front_eng/roman/roman_01.do).

[6] Korean is the mordern standard language spoken on the Korean peninsula, including the 4,722 islands (South Korea: 3,677 and North Korea: 1,045) around it. The alphabet has a total of 24 basic letters, 14 consonants and 10 vowels. Through a combination of letters, the alphabet can be extended to 40. The writing system is phonemic, based on the alphabet called "Hangeul" (the standard of South Korea, in North Korea, it is called '*choseonmal*'). It was invented by king Sejong (1443), who was the fourth king of the Choseon dynasty (1392-1910) to facilitate the learning of the difficult Chinese ideograms for the lower classes. Unlike the linear mode of writing of the Roman alphabet, in the *Hangeul* alphabet, the syllables are assembled by pieces combining consonants and vowels in a square as if it were a "tetris game" or "puzzling" following certain principles: (Abbreviate - C: consonant, V: vowel)

(i) | C | V |
(2) | "o" | V |
(3) | C | / V |
(4) | C V / C |
(5) | C / V |
(6) | C V / C C |
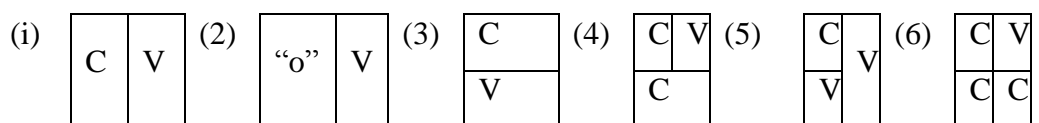
[from Yoen J. & Brown L. 2011:11]

As indicated above, morphologically agglutinative languages have their roots in the Altaic language family. To better understand this language, I want to present Spanish as a sample of Indo-European languages, from a comparative linguistic point of view, as ilustrated in table 1:

Table 1: The language family of Korean and Spanish

	Main Subgroup			**Main Subgroup**
INDO-EUROPEAN	Albanian	Celtic	**ALTAIC**	Manchu-Tungustic
	Armenian	Germanic		Turkic
	Balto-Slavic	Hellenic:		Korean
	Indo-Iranian	Italic		Japanese-Ryukyuan
Italic	*Freanch, Latin, Spanish*		Korean	*Korean*

[from Whaley 1997: xx-xxiii][7]

Ramstedt (1873~1950) was the first linguist to propose that the Korean language is included in the Altaic language family; after this, Poppe (1960, 1965, 1969) assumed that the Turkic, Mogolian and Tunguistic languages (or Manchu-Tungus), which are in the Altaic language family, were classified in a different group from Korean (which also includes the Japanese group; Miller 1986:34, Voegelin 1977:19 Lee I.S. & S-Robert R. 2000:5).

> 1. The Altaic Languages (pp.7-77): These are identified by the author as the Mongolian, Manchu-Tungus, Chuvash-Turkic, and Korean sub-groups each of which is treated separately and further broken down into their sub-divisions, geographical distribution, scripts, and general characteristics.
>
> [from Poppe 1969:662]

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[7] See also http://en.wikipedia.org/wiki/Language_family

Despite this fact, there is a lot of controversy in academia as to whether Korean belongs to the typical Altaic group or an independent language group because of a lack of evidences and the phenomenon that it is different from Turkish or the Manchu-Tungus language[8]. Nonetheless, Korean textbooks (The Ministry of Education 1996:184, Yoon Y.T. (ed.miraen) 2014:102) follow Poppe's classification. That is to say, although Korean is included in the Altaic group, it is sub-categorized as a Korean language group different from the Turkic, Mogolian and Tunguistic languages. The following diagram is a summary of what is explained in the texbooks:

(9) Altaic branch of Korean

Altaic languages ⌐ Turkic, Mogolian and Tunguistic languages

└ Buyeo o Fuyu / Han (proto-Korean, approximately 10c)
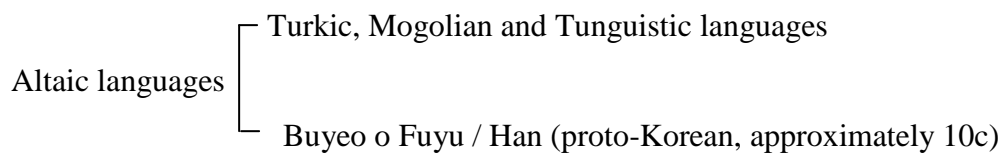
As mentioned above, although there are some controversies, in fact, the reason why the relationship of Korean with the Altaic family has been discussed, since all of them, including this language, manifest some common structural properties, which can be summarized in the following list (see Ramstedt 1939, Martin 1954 and Pihl 1965):

(10) Common properties of Altaic languages and Korean:

    a.   The preferred basic order **SOV**
    b.   **Postpositions** instead of preposition.

---

[8] The underlying reason of this controversy is due to the suggestions of Poppe (1965:148). He suggested three different possible ways for Korean to be related to the Altaic language family: firstly, that Korean is closely related to Altaic; secondly, that proto-Korean had already separated before the Altaic unit existed; finally, Korean is non-Altaic, but has a substratum of the Altaic. Korean academia generally quotes his first suggestion (Kim, M-L 2004:14). .

c. The existence of **vowel harmony**.[9]

d. Having a strong **agglutinative** feature that is achieved by the agglutination of a large number of suffixes (the root and ending or suffix of the word   are easily separated).

e. **Absence of grammatical gender** in nominal traits.

f. The existence of the **initial sound rule**, in which the concrete consonant /r/ y /l/ is not said[10].

g. **Existence of a connector,** so-called 'non-conclusive verb ending' (*budongsa* in Korean), instead of the conjunctions in embedded clause corresponding to *'that'* in English and *'que'* in Spanish).

[from Moreno 2003: 290, 305, Kim M-L 2004:13, my translation MKL]

The followings are examples of Korean that correspond to the properties just listed above. Since the topics explored in this dissertation fall within the domain of syntax, I will focus on morphological and syntactic properties of Korean, putting aside phonological ones (in footnotes 10 and 11 with respect to (c) and (f), we briefly discuss such properties):

SOV word order: The basic word order of Korean is SOV and the Korean grammar defines its word order as Subject + Object + Predicate. The special property of this language is that it

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[9] The vowels are grouped in anterior (eo(/ə/), u) and posterior vowel (a, o). It is a phonological phenomenon that consists of matching between similar vowels, which facilitates pronounciation. That is to say, in a word consisting of two or more syllables, if the preceding vowels are posterior one, then the second vowel should be form the same group. (Sohn 1999: 181, Lee & Ramsey 2000:122, Moreno 2003: 304)

  (i) Vowel harmony principle:

    a. Anterior vowels + Anterior vowels

    b. Posterior vowels + Posterior vowels

For instance, there are two types of past suffixes: *-ass* and *-eoss*. When the first syllable is a word constituted of posterior vowels, the following vowels should not be anterior ones, as follows in (2):

  (ii) a. m<u>eo</u>g-<u>eo</u>ss-da   (eo + eo)   b. *m<u>eo</u>g-<u>a</u>ss-da *(eo + a)

       eat A-PST A-DEC   eat A-PST P-DEC

[10] When the first sound of a word is /r/ it must be changed by /n/ in order to pronounce it more easily.

has the case marking particles to carry out the grammatical function, in each sentence, such as *'-i/-ga'* for nominative, *'-(l)eul'* for accusative, as can be seen in (11):

(11)   Subject   Object   Verb

       Geu-ga   seonmul-eul   sanda

       He-NOM   present-ACC   buy

       'He buys a present'

Postposition: Another distinctive feature of Korean is that it uses postpositions, not prepositions as in English. As can be seen in (12), the particles *'-ga'* and *'-e'* come after the noun: for instance, 'at school' in English, but 'school-at', and verbal suffixes must be attatched after the stem (Nam & Go 2014: 14, Lee, I-S 2007:3) :

(12) Minsu-ga   hakgyo-e   iss-eoss-eoyo

     Minsu-NOM   school-AT   is-PAST-POLITE FINAL ENDING

    'Minsu was at school'

Agglutination: The numerous grammatical and semantic constituents, such as particles or endings (suffixes) adhere to nouns (-clauses) and verb/adjective stems in the postpositional way (Nam & Go 2014: 13, Choi, J.H. 2004: 20, NIKL 1999: 25, Lee, I.S. 2007:3):

(13) a. **Seoul-lo$_{(1)}$-buteo$_{(2)}$-ui$_{(3)}$**   soyo   geori

      Seoul-in-from-of   required distance

      'The required distance from Seoul'

    b. abeoji-neun   jigeumjjeum   bihaengki-leul   **ta-si$_{(1)}$-eoss$_{(2)}$-gess$_{(3)}$-eoyo$_{(4)}$**

     Father-TOP   by now   plane-ACU   on-HON-PST-CON-PFE

    'Father must be on the plane by now'

                         [adapted from Choi, J.H. 2004: 20, Yoen & Brown   2011: 206]

As in (13a), the three particles *'-lo-'* (in), *'-buteo-'* (from), *'-ui'* (of) in bold letter are added to the noun 'Seoul' in turn. Also, example (13b) shows that the verb stem *'ta-'* of *'ta-da'* (Eng. board, get on) follows by honorific (1) *'-si'*, past tense (2) *'-eoss'*, the meaning of conjecture (3) *'-gess'* and verb final ending (4) *'-eoyo'* with a certain order.

Absence of gender[11]: In Korean, nouns have no gender. If it is necessary to distinguish whether a person's gender is male or female, the word "man" (namja/ nam-) and "woman" (yeoja/yeo-) are used in front of the word:

(14) nam(ja)   hack-saeng   /   yeo(ja)   hack-saeng

     man   student   woman   student

Connector (non-conclusive verb)[12]: In order to link two verbs in a sentence, the Indo-European languages use the conjunction "that" (in English) or "que" (in Spanish), while in Altaic languages, a connector is used, instead.   Due to the agglutinative property of Korean, one of the several connectors *"-(la)go"* is attatched to the preceding verb stem and the verb with this connector is a so-called "non-conclusive verb" (Kor. *budongsa*) such as 'o-lego-lago (Eng. that will come) in (15). Korean grammar defines that this is conjugated form that has adverbial endings (suffixes) or conjunctive endings. (Ramstedt, G.J. 1939, Pihl, M.R.Jr, 1965, Martin, S., 1954, Choi 1959, Lee, K-M 1972, Lim 1984, Lee, S-T 1988).[13]

(15) a. Hannah said **that** he will come tomorrow   (English)

    b. Hannah-neun   geu-ga   naeil   o-lgeo-**lago** malhaess-da   (Korean)

       (Hannah-TOP) he-NOM   tomorrow come-will-that said-PST-DEC

In sum, we have briefly reviewed the basic aspect of Korean, including the definition of this language, the genetic affiliation 'Altaic language family' and its morphological / syntactic properties, such as agglutinative and SOV basic word order.

Bearing all this in mind, in the next section, the morphological characteristics of Korean will be explored to highlight the many differences between other languages.

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[11] Also, Korean does not have the definite articles 'the', as in English.

[12] The person who first introduced the concept of a "non-conclusive verb" (*budongsa*) was Altaic linguist Ramstedt, G.J. (1873~1950). According to Altaic traditional linguistics, he classified into three types the Korean verb according to the conjugation of verb endings; finite verb, non-conclusive verb and gerund (Ramstedt, G.J. 1939, Pihl, M.R.Jr, 1965, Martin, S., 1954).

[13] This definition is summarized with reference to http://encykorea.aks.ac.kr/ (*hangug minjok munhwa dae baeggwa*).

2.2.1. Basic morphological properties: inflectional suffixes

Phylogenetically, the literature on linguistic typology assings Korean to the Altaic language family (Ramstedt 1928, Miller 1971, 1996, Starostin et al. 2003). It is, therefore, an agglutinative language. This agglutinative nature is well reflected in the Korean morphology and this is the main property used to drive a word or a sentence. In this section, we will review briefly how predicates, Noun Phrases (NPs) and Verb Phrases (VPs) are built by putting a puzzle of morphemes with agglutinative features. For the discussion of syntactic perspectives, I would like to focus on inflectional morphemes, as opposed to derivational ones. I repeat the data form (3) for convenience:

(3) Totoro-<u>ga</u>   san-<u>eseo</u>   dotori-<u>leul</u>   juwo-<u>ss</u>-<u>da</u>   (Korean)

    Totoro-$_{NOM}$ moutain-in   acorn-$_{ACC}$ pick-PST-DEC

    'Totoro picked up acorns from the mountain'

As I described before, underlined elements mark grammatical function for its nouns and verb stems, and they are also indicated as bound morphemes[14]. In Korean the bound morphemes attached to a noun are called 'particles', and those added to a verb are referred to 'endings'. Since these inflectional suffixes have relevance for the syntax, I focus on this so, depending on the properties of nouns and verbs in Korean, we will look at, in turn, what kind of particles and endings they have and their system.

2.2.1.1. Nominal properties: Numeral classifiers, Particles

NIKL (1999: 350) divides the nominal properties of Korean into five types: (1) appearance nouns with particles, (2) non-obligates with determiner, (3) no gender as in Romance languages, (4) plural marking (-*deul*) on nouns which is not obligatory, and (5) verbs which are not inflected according to the number of the subject. With respect to these properties, we already have seen them in the previous section, in which the characteristics of Altaic languages are described. With this in mind, let us consider the peculiar bound morphemes of nouns in Korean.

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[14] From a structuralist point of view, morphemes are the smallest linguistic units with meaning. When it comes to the phonological (in)dependence of morphemes, these units have been classified into unbound (free) and bound morpheme (Harley 2006: 119).

Numeral Classifier

As seen just before, Korean has a phenemenon where the number is not obligatorily inflected on nouns and the plural noun form (nouns + *'-deul'*) can be replaced by the number with the numeral classifier [N+CLS]. Connected to this, Greenberg (1972:17) illustrates as follows:

> "Numeral classifier languages generally do not have compulsory expression of nominal plurality, but at most facultative expression."

To demonstrate the quote mentioned above, we will attempt to apply it to Korean data and look into the usage of the classifier compared to another language which uses numeral classifiers. Consider the following examples:

(16) a. chagsang   ui-e   <u>chaeg</u>-i   manta   (Korean)

      table   on-to   book-NOM   there are many

    'There are many books on the table'

   b. chaegsang   ui-e   <u>chaeg-deul</u>-i   manta

      table   on-to   book-PLU-NOM   there are many

    'There are many books on the table'

In (16a), regalrdless of the apppearance of the plural suffix on nouns, the singular noun form *'chaeg'* (book) can semantically have the plural meaning, due to the plural meaning of the verb *'manta'* (there are many). In addition to this, there is another way to express plurality on nouns without the plural marker *'-deul'*: that method is to use the classifier, as illustrated in (17c) and (17d):

(17) a. *se   chaeg   *[numeral + noun]

     three   book

    'three books'

   b. *se   chaeg-deul   *[PL. numeral + noun + PL]

     three   book

    'three books'

   c. chaeg   se   gueon   [noun + numeral + classifier]

book   three   CLS

  'three books'

  d. se   gueon-ui   chaeg(-deul)   [N + CLS + posesive + noun (-plural)]

    three   CLS-POS   book(-s)

  'three books'

As seen in (17a) and (17b), a numeral cannot be directly added to the noun head in a counting construction. Instead, the use of a classifier is obligatory, as in (17c) and (17d). Also, a numeral is immediately followed by a classifier and the plural marker '*-deul*' can appear to a head noun only with a classifier, as in (17d) (cf. (17b)). A similar phenomenon   is observed in Mandarine Chinese, as shown in (18):

(18) a. *sān   shū   (Mandarin Chinese)

    three   book

  'three books'

  b. sān   běn   shū

   hree   CLS   book

  'three books'

Examples (17a) and (17c) correspond to (18a) and (18b), respectively. The distinction between the two languages is only the word order between nouns and classifiers – [noun+<u>numeral+CLS</u>] in Korean (c), and [<u>numeral+CLS</u>+nouns] in Chinese (18b). However, in Korean [numeral+CLS+<u>POSSESIVE</u>+noun] is also possible, if the possesive particle is added between a classifier and a noun .

  In Korean, the appropriate classifier[15] is used depending on which object is being counted. To better understand this system, it can be compared to English, as in (19):

---

[15] The following table introduces some classifiers mainly used in Korean:

(i) The types of Korean classifier

Unit being counted	Name of classifier	Example
objects	gae	sagoa han gae apple one CLS
cups	jan	keopi du jan coffe two CLS

(19) a. Give me <u>a cup of tea</u>   (English)

    b. I ate just <u>a piece of cake</u> in the morning.

<div align="right">[from NIKL 1999: 362]</div>

(20) a. cha han jan   /   han jan-ui cha   (Korean)

     tea   one cup /   one cup-of tea

  'a cup of tea'

    b. *han cha

      one   tea

    c. keik han jogag / han jogag-ui keik

     cake   one piece / one peice-of cake

     'a piece of cake

    d. *han   keik

     one   cake

As in (20a) and (20c), the words 'cup' and 'piece', by which the numerals follow is also used on the same usage as the classifiers in Korean. There are types in the counting construction, as described above. Thus, as seen in (20b) and (20d), Korean always requires the classifier when the object has to be counted (the same goes for English as well in this case).

To sum up, the counting construction is obligatorily required to use a classifier, such as [noun+numeral+<u>classifier</u>] rather than the form of [numeral+noun]. This can be substituted by the [numeral+classifier+possesive+noun] form. This classifier system is the most peculiar featureof nominals used in Korean, including Chinese and Japanese.

We will now discuss with respect to particles that another nominal property exists in Korean.

| animals | mari | goyangi han mari
cat   one   CLS |

<div align="right">[from Yeon & Brown 2011: 86]</div>

In addition to this, there are many kinds of classifiers depending on the type of unit being counted in Korean:see more details in Yeon & Brown (201182-93), and NIKL (1999: 358-366)

Particles

The particles are one of the most significant characteristics of agglutinative languages. In Korean, particles are generally used as postpositions that are attached to the preceding nouns. Furthermore, they are hardly used independently –unbound morpheme- and are responsible for the grammatical and semantic function of a sentence, joinig nouns (phrase). Particles can be attatched to the nominal categories (nouns, pronouns, numerals or nominalized phrase). Depending on their functions, Korean particles can be divided into two large groups: (i) case particles and (ii) auxiliary particles. The former is engaged in the structure of the sentence syntactically, and the latter adds the special meaning semantically. From now on, we will study both types of particles so that we can better understand the exmaples of Korean.

Case and auxiliary particles

As mentioned in the opening section, the particles word category traditionally consists of two large group, the so-called 'case particle'[16] and 'auxiliary/special paticle' (NIKL 1999: 398, Choi 2008, Sohn 1999: 213, Lee 1992). The former is generally defined as a postposition or a case marker that indicates the syntactic, semantic relation with their host constituent by attatching to an NP. Unlike the case particle, the latter, followings a nominal or other phrase, indicates an attitude of the speaker or adds the meanings of the constituent to which it attaches (NIKL 1999:433)[17].

We will briefly account now discuss the different types of case particles. The following is the classification of standard case paticles.

Table 2. Korean case particles[18]

Case paticles		After vowel	After consonant	Honorific
(1) Nominative		-ga	-i	kkeseo
(2) Accusative		-leul	-eul	
(3) Adverbial	Dative	-e (inanimte) / -ege (animate) etc.		kke

---

[16] There is a lot of controversy about whether the case particle in Korean is a suffix (i.e., bound morphemes) or a word (Sohn 1999: 231, Lee, J-H 2004:35). In this dissertation, I will reagard it as a suffix.

[17] Some authors refer to these particles as *case particles* and *delimiters*, respectively (Sohn 1999:213-215).

[18] We provide here the overall-frame work of NIKL's sub-classification (1999: 398-432) on case particles. For a summarized version on case particle system, refer to Choi (2008).

	Locative	-e		
	Ablative	-eseo (inanimate) / -egeseo (animate) etc.		kkeseo
	Comitative	-wa / -lang	-goa / -ilang etc.	
	Directional	-lo	-euro "towards"	
	Intrumental	-lo	-euro(-sse) "with"	
	Essive-modal	-lo	-euro(-se) "as"	
	Comparative	-boda		
	Equative	-cheoleum / gachi "as, like" etc.		
(4) adnominal	genitive	-ui		
(5) vocative		-ya	-a	-(isi)yeo

[from Heo et. al. 2005: 215, Choi 2008: 136, NIKL 1999: 401-431]

NIKL (1999: 400) describes that the nomintative and accusative particles are in nature slightly different from other particles. This is because a noun (phrase) accompanied by these particles functions as the subject or the object in a sentence. In contrast, a noun followed by an adnominal particle becomes an adnominal word: a noun followed by an adverbial particle becomes an adverbial word: and a nound followed by a vocative particle becomes an independent word (or unbound morpheme). Thus these particles cause the noun to lose its function, whereas a noun with nominative and accusative particles maintain its word category.

Defenitively, the nouminative and accusative particles mark the grammatical relation between constituents, while the others indicate the semantic relation:

(21) a. saramdeul-i Busan-e oass-da   (semantic relation mark)

    people-NOM Busan-to (LOC) came-DCL

  'People came to Busan'

  b. saramdeul-i Busan-eseo oass-da

  people-NOM Busan-from (ABL) came-DCL

'People came from Busan'

(22) a. Insu-<u>ga</u>   wa-yo   (grammatical relation mark)

      Insu-NOM   come-PFE[19]

      'Insu comes'

  b. Insu-ga   ilboneo-<u>leul</u>   gongbuhan-da

      Insu-NOM   Japanese-ACU   study-DCL

    'Insu studies Japanese'

                              [adapted from NIKL 1999: 400]

The underlined locative particle *'-e'* (to) in (21a) and the ablative particle *'-eseo'* (from) in (21b) have a semantic relation to the predicate *'oassda'* (came) thus the interpretation of the two sentences depends on their particles. On the other hands, the nominative particle *'-ga'* and the accusative particle *'-leul'* solely provide the information that is the subject or the object in a sentence Therefore, the particles that have a grammatical relation are more easily omitted than the others that mark a semantic one. The following (23) is a sentence without the paricles.

(23) a. ??saramdeul-i Busan-∅̲ oass-da   (semantic relation mark)

    people-NOM Busan-to (LOC) came-DCL

     'People came to/from Busan'

The meaning of this sentence is ambiguous whether it means "People came to Busan" or "from Busan" by the absence of the particles that indicate the semantic relation between the noun 'Busan' and the predicate 'oassda' (came). Contrary to this, nominative and accusative markers can be dropped to function as subject and object, respectively[20].

(24) a. Insu-<u>ga</u>   wa-yo   (grammatical relation mark)

    Insu-NOM   come-PFE

---

[19] Abbreviation PFE: Polite Final Ending.

[20] There is a controversy as to whether or not case particles are syntactic heads of a dependent projection, depending on whether they are obligatory appearance (Han 2003, Yim 1991). In order to avoid the comoplication of our discussions we do not consider this issue in this dissertation.

'Insu comes'

  b. Insu-ga   ilboneo-∅   gongbuhan-da

    Insu-NOM   Japanese-ACU   study-DCL

    'Insu studies Japanese'

The fact that subject and object case particles (or markers) play a role as grammatical function rather than a semantic function leads us to the prediction that these my be structurally assigned in syntax part.

   So far, we have explored the basic funations of the case particles, and in what follows, we will survey auxiliary/special particles.

While case particles signal their grammatical function by attaching to a noun or a noun phrase, auxiliary particles (or in some contexts referred to as special particles) are used only to add extra meaning to nouns or other types of word category: for instance, they are used for emphasis, focus or aboutness. The following is the classification of auxiliary particles in Korean.

(25) Table 3. Korean auxiliary (special) particles

Auxiliary particles	After vowel	After consonant	Meaning
Theme	-eun	-neun	as for
Inclusion	-do		also, too, as well
Limitation	-man		only, solely
Toleration	-ya (malo)	-iya (malo)	only if ti be, as only for, finally
Concession	-lado	-ilado	even, for lack of anything better
Inception	-buteo		starting form, be beginning with
Boundary	-kkaji		as far as, even, up to
Addition	-jocha		even, as well
etc.			

[from Choi 2008: 136]

Consider the following examples that some auxiliary particles are used (abbreviation: CF (Contrastive Focus), Dec (Declarative)):

(26) a. Bibimbap-<u>do</u>   masiss-eoyo[21]   (Korean)

      Bibimbap-too   delicious-DEC

      'Bibimbap is delicious too'

   b. Bibimbap-<u>eun</u>   masiss-eoyo

      Bibimbap-as for/CF   delicious- DEC

      'As for Bibimbap, it is delicious' / 'Bibimbap is delicious [but another food is not]'

Even though the sentence structures are the same between (26a) and (26b), the meaning of each sentence is different because of particles *-do* (too) and *-eun* (as for) attached to the NP. In the case of the *'-eun'* in (30b), it is generally a topic marker but it also gives an indicating contrastive meaning. As for the particle *'-(n)eun'*, this will be discussed later that is related to *'topicalization'* and *'constrative focus'*.

   The distribution of auxiliary particles is not limited to the nouns category, they can follow nouns, adverbs, and verb conjugations:

(27) a. Yuna-<u>do</u>   Bibimbap-eul   mopsi   joahan-da.   (Korean)

      Yuna-too   Bibimbap-ACC   very much   like-DEC

      'Yuna likes Bibimbap very much, too'

   b. Yuna-ga   Bibimbap-<u>do</u>   mopsi   joahan-da

      Yuna-NOM   Bibimbap-too   very much   like-DEC

      'Yuna likes very much Bibimbap too'

   c. Yuna-ga   Bibimbap-eul   mopsi-<u>do</u>   joahan-da

      Yuna-NOM   Bibimbap-ACC   very much-EMP   like-DEC

      'Yuna likes very much Bibimbap'

The auxiliary particle *'-do'* as seen in (27), it can follow the subject, the object, and the adverb. This particle can not appear with the nominative or accusative case markers, that is to say, the case particles are eliminated in this case (*Yuna-ga-do)[22]. It does not indicate a case,

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[21] The verb with the ending –(eo)yo expresses the second level of politeness level (see talbe 38).

[22] However, in the case of the *'-man'* (only), and *'-kkaji'* (even), those can appear with the nomintative or

but conveys its own semantic information. Moreover, some auxiliary particles can be attached to others to add the extra semantic functions, such as *'-(n)eun'* (as for), *'-man'* (only), and *'-do'* (also). This combination is not always possible; some are combined, others not.

(28) a. Yuna [man, kkaji, $^?$jocha, *-do]-nuen   Bibimbap-eul   meog-eoss-da.   (Ko)
         Yuna [only, up to, even, also]- TOP   Bibimbap-ACC   eat-PST-DEC

   b. Yuna-ga Bibimbap   [*man, kkaji, jocha]-do   meogji   mot-haess-da
      Yuna-NOM Bibimbap [only, even, even]-also   eat   not-PST-DEC

   c. Yuna-ga   Bibmbap [kkaji, *jocha, *do]-man   meog-eoss-da
      Yuna-NOM   Bibimbap [up to, even, also]-only   eat-PST-DEC

This distribution seems to be related to the semantic meaning of each auxiliary particle (Choi 2004: 142).

   In sum, as regards the case particles, these mark only the grammatical functions and it can be shown that the structural-case is realized morphologically due to the fact that nomintative and accusative particles can be omitted. It means that the nominative and accusative particles can be considered in connection with the structural functions of syntax part. Contrary to this, auxiliary particles play a role as giving additional meaning related to discourse rather than grammatical mark. Thus its distribution is relatively free to move or attach to another word category (nouns, adverbs, and verb inflectional forms). As a consequence, we have shown that there are differences in functions between case and auxiliary particles. Moreover, in the association of the [case particle] + the [auxiliary particle], only case particles are easily

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accusative particle. Here, I suggest only the example of '-man':

(i) a. Yuna-man-i   Bibiambap-eul   joahan-da
     Yuna-only-NOM   Bibimbap-ACC   likes-DEC
     'Only Yuna likes Bibimbap'
    b. Yuna-ga Bibimbap-man-eul joahan-da
     Yuna-NOM Bibiambap-only-ACC likes-DEC
     'Yuna likes only Bibimbap'

As seen in (i), the auxiliary particle '-*man*' can attach with the case particles preceding it.
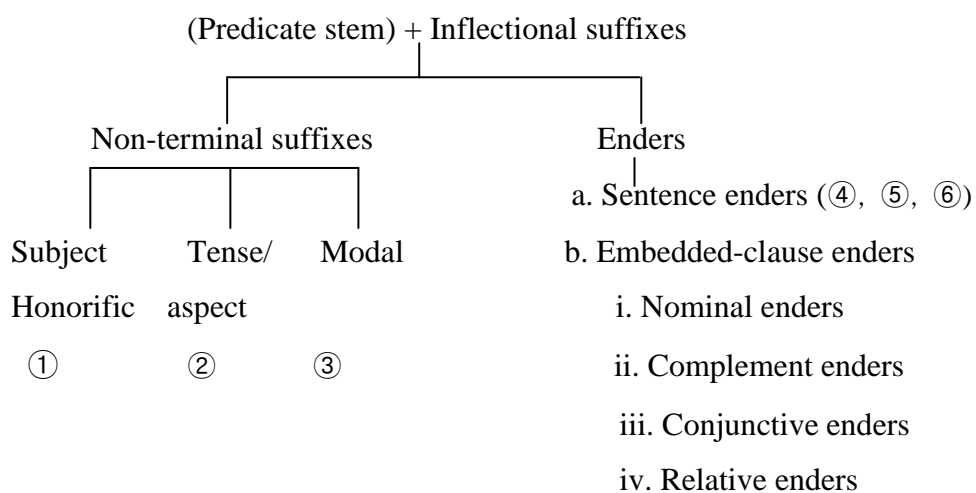
omitable, while when auxiliary particles are removed, they do not make sense or are ambigious.

Considering this fact, it can be assumed that it is morphological that gives a discourse effect in the flows of dialogue. In this dissertation, however, we will argue that a discourse effect could be given by menas of syntactic operations. We assume that morphemes can be regarded as makers that appear as a result of a struatural processing. Therefore, we make our position in advance that the forthcoming discussions will be based on the assumption that the syntactic functions rather than morphological perspectives would have a decisive influence on the discourse effects.

2.2.1.2.   Verb properties: Endings

The characteristics of the Korean verb form are such that the several inflectional morphemes, namely the endings, can be added to a verb stem. As the particles should be attached to nouns due to the agglutinative nature of the language, verb endings that follow verb stem must also be displayed because of their properties. In particular, there is a restriction in their order, that is, [verb root - prefinal ending - final ending]. In Sohn (1999), inflectional suffixes and their order in Korean are relatively well summarized, as illustrated in (29):

(29) Korean verb ending types and set order system

<pre>
              (Predicate stem) + Inflectional suffixes
                   |
         Non-terminal suffixes   Enders
              | a. Sentence enders (④, ⑤, ⑥)
     Subject   Tense/   Modal   b. Embedded-clause enders
     Honorific aspect   i. Nominal enders
       ①   ②   ③   ii. Complement enders
                                             iii. Conjunctive enders
                                             iv. Relative enders
</pre>

[from Sohn 1999: 233]

(29) shows that the inflectional endings in Korean are divided into two types -Non-terminal suffixes and Enders-, in which the verb stem is in turn followed by Subject Honorific + Tense + Mood + Enders or types of embedded clause enders which is marked with numbers.

The sub-category of "Enders" has three distinct groups in "Sentence enders" (i.e., ④, ⑤. ⑥), as illustrated in (30):

(30)

Sentence enders

	④	⑤	⑥
	Addressee	Mood	S-type
	Honorific (AH)	a. Indicative (IN)	a. Declarative (DC)
		b. Retrospective (RT)	b. Interrogative (Q)
		c. Requestive (RQ)	c. Propositive (PR)
			d. Imperative (IM)

[adapted from Sohn 1999: 234]
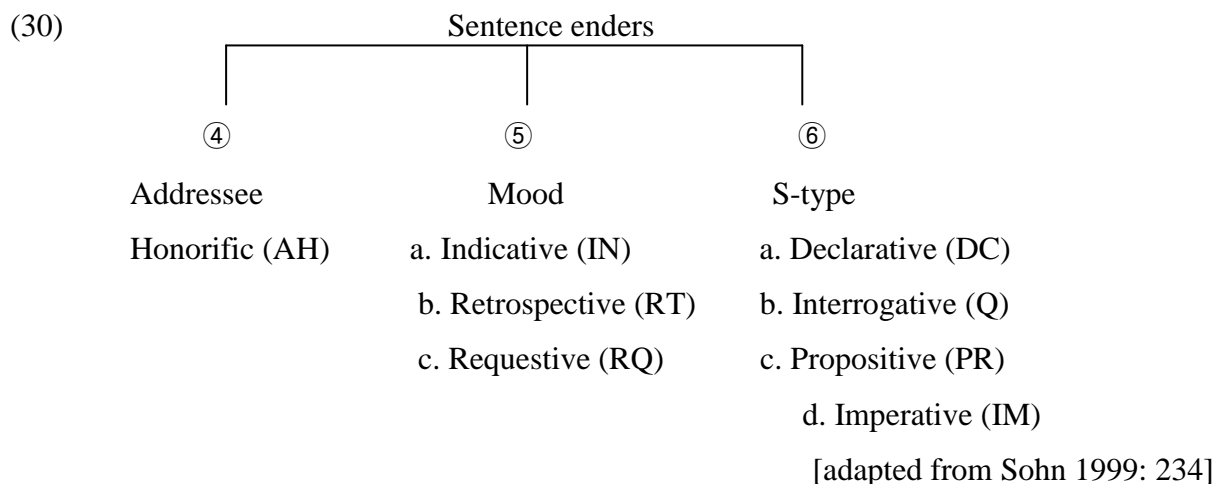
Then, as described in the introduction to inflectional morphology, the basic form of endings order is as follows:

(31) a. *-si* (SH), *-eoss/-ass* (PST)[23], -gess (INT)[24]: Non-terminal suffixes category

        ①   ②   ③

     -seum (AH), *-ni* (IN), *-da* (DC): Setence enders category

        ④   ⑤   ⑥

  b. bad-eu[25]-si-eoss-gess-seum-ni-da: complete predicate part

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[23] The following is all of the tense and aspect endings in Korean:

  a. Simple past: -ass/ -eoss

  b. Past-past: -ass-eoss/ -eoss-eoss

  c. Observed or perceived past tense: -deola/ -deonya and –ass/-eoss deola, etc.

  d. Future tenses: -gess, -(eu)l geo-, -(eu)l gue, -(eu)lyego ha-

  e. Continous tense/aspect: -a/eo iss-, -go iss-   [from Yoen & Brown 2011:196-213]

[24] INT is the abbreviation of "intention" which implies the meaning of "conjecture" and belongs to the sub-category of Modal in Non-termianl suffixes.

[25] It does not have meaning or a grammatical function, it has only a phonological function, i.e., allomorphs

receive-∅ -SH-PST-INT-AH-IN-DC

order: ① -② -③ -④ -⑤ -⑥

"(An elder person) would have received (something)"

As Korean is one of the typical agglutinative languages, each suffix has a meaning (as -*gess* "conjecture") or grammatical marking (as -*si* "subject honorific", -*eoss* "past", -*seum* "subject honorific", -*ni* "indicative mood" and -*da* "declarative suffix"): the order among constituents is quiet strict. Furthermore, except for the '-*da*' (DEC), the rest is optional, that is to say, it can also be attatched or omitted as needed, as illustrated in (32):

(32) a. bad-da (Verb Root - ⑥)： receive

　　 b. bad-ass-da (VR-②-⑥)： have received/ received

　　 c. bad-eu-si-eoss-da (VR- ∅ -①-②-⑥): (An elder person) has received/ received

　　 d. bad-ass-gess-da (VR-②-③-⑥): could have received

　　 e. bad-eu-si-eoss-gess-da (VR- ∅ -①-②-③-⑥): (An elder person) could have received.

Again, S-type endings (number ⑥ in (32) are obligatory due to the fact that the verb stem is a bound morpheme in Korean: the others, such as in ①, ②, ③, ④, ⑤ are optional or zero form in appearance with a verb stem (Sohn 1999: 235). For that reason, we will mainly focus on tense/aspect and setential type endings to compare with other languages cross-linguistically.

　　From a syntactic perspective, verb ending ⑥ determines the sentential type, which is connected to functional category C in syntax that Rizzi (1997:283) refers to as 'force[26]' in the Complimentizer system. In Korean, the S-taype endings occupy the domain of 'force'. To set the stage for this issue, I will survey the verb endings that correspond to ⑥, in detail.

　　S-type endings are divided into *declarative* [-*da*], *interrogative* [-*ni/ -kka?*], *propositive* [-*ayo/-eoyo*], and *imperative* [-*(eo)la*]; these are so-called depending on different authors; for instance, Sohn (1999) calls it "S-type", as can be seen in (33) but Korean traditional grammar

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(consonant+<u>vowel</u>+consonant).

[26] Rizzi (1997:283) describes that this is also called the clausal Type (Cheng 1991) or the specification of Force (Chomsky 1995).

refs to "Final endings"[27] (NIKL 1999:85-107, Lee & Ramsey 2000:183).Each of the following is a sentential type of the verb stem '*meog-'* (eat):

(33) Korean five sentential types depending on final endings

    a. Declarative: meog-neun-<u>da</u>. ((someone) eats)

    b. Interrogative: meog-<u>ni</u>? / meog-seum-ni-<u>kka</u>? ((Are you) eatining?)

    c. Propositive: meog-<u>ja</u>. (Let's eat!)

    d. Imperative: meog-eo-<u>la</u>! (Eat!)

Note that in Korean each sentential type has six kinds of honorific system to show a politeness level to the listener: this system is so pervasive in Korean society. In this work, this honorific system will be applied to only "imperative endings" to show it briefly, since I regard that this is not important to syntax part. See (34) (for more detail, see Lee & Ramsey 2000:183, Yoen & Brown 2011:170-187, NIKL 1999: 221-224):

(34) Ending styles depending on politeness level

	Politeness level	Endings style	Imperative verb "study"
1.	formal:	*-ha(p)-sio* style	gongbu-ha-sip-si-o
2.	polite:	*-hae-yo* style	gongbu-hae-yo
3.	semiformal:	*-ha-o* style	gongbu-ha-o
4.	familiar:	*-ha-gue* style	gongbu-ha-gue
5.	pannmal:	*-hae, -eo/-a* style	gongbu-hae!
6.	plain:	*-hae-la* style	gongbu-haela!

These several endings are determined by the social relationship between speakers. In other words, the speakers select proper politeness level endings, considering the hearer's age and social position.

Embedded-clause enders

In this subsection, we introduce various kinds of connectors and conjunctions) that connect Noun Phrases and Verb Phrases. NIKL (1999: Chpater 8) classifies embedded clauses into

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[27] In Korean, it is called *"jongyul eomi"* (NIKL 1999:Chapter 7).

three types: (i) noun, (ii) adnominal, and (iii) indirect quotation clause. These embedded clause endings take clause ending suffixes called '**nominalizers'** (a connector that convert a verb phrase into a noun form), '**relativizer** (a connector that modifies a noun as a adnominal), and '**subordinator'** (a connector as indirect quotation particles), respectivley.

In the case of conjunctors, complimentizers, and advervbializers only function to connect simply two verbs or sentences rather than those are used for embedded clause. In addition, there are various conjunctors, which are determined by a semantic relation between two sentences or verbs. Here, only two conjunctors will be presented (NIKL 1999: 110-155, Sohn 1999: 239, Yoen & Brown 2011: Chapter 6, Lee & Ramsey 2000:202-206):

(35) a. bi-ga onda.   baram-i bunda.   (Korean)

        rain-NOM come.   wind-NOM blow

        'It's rainy. It's windy'

   b. bi-ga   o-go   baram-i bunda

   rain-NOM   S-come-CON[28] wind-NOM blow

   'It's rainy and windy'

                                                      [from NIKL 1999:111]

(36) a. I can eat kimchi, but I don't like it much.   (English)

    b. (Na-neun) kimchi-leul   meog-eul su iss-jiman   byelo   joahaji ana-yo[29] (Ko)

      (I-TOP) kimchi-ACC   eat-can-   but   no-much like no-DEL

                                     [from Yoen & Brown 2011: 273]

As can be seen in (35b) and (36b), the conjunctor *'-go'* (Eng. and) and '*-jiman'* (Eng. but) connect two sentences by attaching to the stems of the verb in the preceding sentence. Now we will explore *nominalizer*, *relativizer*, and *subordinator***.**

a. Nominalizer

Korean has five types of nominalizer *-i, -gae, -ki, -eum* and *-neun geos* and three types *-ki, -eum* and *-neun geos* are nominalizers (NIKL 1999: 158-161)[30], as shown in (41):

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[28] The abreviation 'S' is 'Stem', thus, 'S-come' means the Stem of verb 'come' and 'CON' is the abv. of 'Conjunctive ending'.

[29] This verb ending *-yo* that correspond to *-da* to mark Declarative sentential type is Polite level style, as already mentioned in (8).

(37) a. –*ki*: meog- (eat), meog**ki** (eating) / gongbuha-da (study),

gongbuha-**ki** (studying)

    b. –*eum*: meog- (eat), meog**eum** (eating)

    c. –*neun geos*: meog- (eat), meog**neun geos** (the fact that he/she is eating)

[from Yoen & Brown. 2011: 53-56, 337]

The difference between the derivational nominalizer is that it can be followed by the past –*(eo)ss / -(a)ss*, future *-geos* and honorific bases *-si*, as follows in (38):

(38) Verb: gongbu-hada (study)

       study-do (*literal translation*)

   a. Past base: gonbu-ha-e<u>ss</u>-ki / eum / neun geos

    b. Future base: gongbu-ha-<u>gess</u>-ki[31]/ eum / neun geos

     c. Honorific base: gongbu-ha-<u>si</u>-ki /eum / neun geos

[adapted from Yoen & Brown 2011: 55]

b. Relativizer

The Korean grammar for foreigner (NIKL 1999:162) refers to the '*adnominal or modifier*' in an embeded-clause. (Yoen & Brown 2011: 328, Song 2005: 176).   Adnominal endings are modifiers since they are used to modify noun phrases. In general, modifiers include adjectives or relative clauses and they are placed before the noun or noun phrase in Korean, as follows in (39) and (40):

(39) Adjectives before nouns

    yeppeun   sonyeo

    pretty   girl

(40) Relative clauses before noun phrases

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[30] In Lee & Ramsey (2000: 191-193) indicates that the nominlizers in Korean only have two types *-ki, -eum*, not including *-neun geos*. However, we will follow the five types nominalizers since *-neun geos* has the same functions with *-gi, -eum*, as can be seen (42).

[31] Normally, this ending *'-ki'* is not uses with futrue tense morpheme in conversation.

meog-neun   saram

eat-MOD   person

'the person who is eating'

[adapted from Yoen & Brown 2011: 335]

In (39), the use of adjectives before the noun is on a par with English, but adnominal endings are different from English since those are also placed on an equal position, that is, before the noun phrase, as in (40).

    The relative pronouns in English (such as that, who, which, whom, where) are determined by the antecedent, which refers to a person, an object or a place. In the case of Korean, there are four modifiers and each type is determined depending on whether it can appear with descriptive, future, processive or past verbs (NIKL 1999:163-174, Yoen & Brown 2011: 328), as follows in (41) and (42):

(41) a. future/ prospective modifier: *-(eu)l*

    b. dynamic modifier: *-neun*

    c. state/ result modifier: *-(eu)n*

    d. retrospective modifier: *-deon*

Consider the examples:

(42) a. nae-ga   sim-<u>eul</u>   kkot.   (Korean)

    I_{NOM}   plant-MOD (future)   flower

    'the flowers that I'm going to plant'

    b. jal   pali-<u>neun</u>   jadongcha

      well   sell-MOD (dynamic)   car

      'the car which is selling well'

    c. eunhangwon-i-<u>n</u>   Kim Yumi

      banker-is-MOD (state)   Kim Yumi

      'the Kim Yumi who is a banker'

    d. sinmun-eul   ilg-<u>deon</u>   saram

      newspaper_{-ACC}   read-MOD (retro.)   person

      'the person who was reading a newspaper'

As can be seen in (42), the future/ prospective modifiers are used to describe a state of affairs in the future and either forms can be used depending on whether the verb stem ends in a consonant (-*eul*) or in a vowel (-*l*). The dynamic modifiers in (42b) connote an action in progress or something done habitually: thus it appears with the present or present progressive form. (42c) is an example of state/ result modifiers which also have two-types -*eun* (after consonants) and –*n* (after vowels). These modifiers can appear with the present and past tenses. The present tense occurs with a descriptive verb (or copula) and these differ from the usage of dynamic verbs, which cannot appear with descriptive verbs (or copula). Finally, (42d) is one-shape modifier -*deon*, which connotes an action, a state that was progressive or taking place previously,

c. Subordinator -*(la)go*[32] (say-type complimentizer)

According to NIKL (1999: 176), Indirect Quotations are used when conveying what someone said and I will refer to it as subordinator. Korean uses the particle '-*(la)go*' that corresponds to *'that'* in English and *'que'* in Spanish, as follows:

(43) a. Youngmi: "gaeul-i   wass-guna!"   (Direct Quotation)

　　　　　　autumn-NOM   came-EXC[33]

　　　'The autumn has come!'

　　b. Minsu: Yongmi-ga   [gaeul-i   wass-da]-**go**   malhaess-da

　　　　　　Y-NOM   autumn-NOM came-DEC-that   said-DEC.

　　　'Youngmi said that the autumn has come'

A distinctive property of indirect quotation clauses in Korean is that the verb tense of an embedded clause does not agree with the verb in the main clause: that is to say, the tense agreement between the two verbs is not strict. Consider the case of English, as follows in (44):

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[32] In Korean, "ganjeob-inyoung-jeol josa".

[33] Abbrevition of Exclamative paticle.

(44) a. Sumi: "I <u>am</u> very busy."   (English)

     b. Sumi <u>said</u> that she <u>was</u> very busy.

<div align="right">[from NIKL 1999: ibid.]</div>

In (44a), present tense verb 'am' is used, but in the indirect quotes, this verb is changed to the past tense due to the verb in the main clause 'said'. However, in the case of Korean, the tense that is used in direct quotes is maintained in embedded clause, as described in (45):

(45) a. Sumi: "bapp-<u>euda</u>!" (I am busy)   (Korean)

     b. Sumi-neun   [bapp-<u>euda</u>]-go   malha-ess-da

        Sumi-TOP   busy-DEC-that   said-PST-DEC

<div align="right">[adapted from NIKL 1999: ibid.]</div>

As in (45b), the *'-euda'* that is attatched to the adjective stem *'bapp-'* (busy) marks the present tense and declarative sentence: thus, this embedded clause verb does not agree with the main verb tense marker *'-ess'*. If the past verb is used in the direct quote, the embedded clause verb also keeps the past tense, as illustrated in (46):

(46) a. Sumi: "bapp-<u>ass</u>-da"   (Korean)

          busy-PST-DEC

     b. Sumi-neun   bapp-<u>ass</u>-da-go   malha-ess-da

       Sumi-TOP   busy-PST-that   said-PST-DEC

<div align="right">[adapted from NIKL 1999: ibid.]</div>

To sum up, in the traditional Korean grammar, particles and endings are treated as inflectional morphology which demonstrates representative properties of agglutinative languages. The suffixes that attatch to the verb/adjective stems are 'endings', which are called 'prefinal endings' and 'final endings' depending on their order.

    On the other hand, in terms of particles, many controversies still remain whether those belong to the derivational part of a word, clitics or simply are the morphological and phonological result of syntactic procedures. Each opinion can be acceptable depending on the lexicologic, phonologic or syntactic perspective.

Bearing this morphological background in mind, let us now address the general syntactic peroperties of Korean.

2.2.2. Basic syntactic properties

This section discusses the basic syntactic properties of Korean, taking into account the morphological properties and agglutinative nature that we have explored in previous sections. To be specific, word order changing such as preposed elements (or scrambling), a sentence which appear double subject or object –so called- multiple nominative/accusative cases structure, which may have relevance for discourse effects, will be paid attention to.   The data to be provided will be addressed primarily in Chapter 4 and 5.   In adidition to this, the case-drop and *pro*-drop phenomena, which are frequently observed in Korean, will be introduced.   The case-drop will be a diagnosis that will allow us to capture the position of argument or non-argument to which the case-marked elements can move. On the other hand, the discussion of *pro*-drop phenomena will show how it differes from if found in Spanish.

2.2.2.1. Standard word order: SOV

As mentioned in senction 2.1.1. in which I discussed the properties of Altaic languages, Korean is typologically an SOV language: Japanese and Turkish also have this word order (and Basque, which also follows an SOV order when it has agents instead of subjects). All grammatical constituents follow stems or roots, as they function as postpositions rather than prepostiions. As we have observed in previous sections, the 'particles' are attached to a noun and the 'endings' follow stems/ roots of a verb / adjective (Abbreviation: PRE (present tense), DEC (declarative)):.

(47) Ai-<u>ga</u>   sagwa-<u>leul</u>   meog-<u>neun-da</u>   (Korean: SOV)
    Child-NOM   apple-ACC   eat-PRE (prefinal ending)-DEC (final ending)
    'The child eats an apple'

[from NIKL 1999: 27]

In (47), the case particle (henceforth nominative case marker) *'-ga'* that indicates the subject and the *'-leul'* that marks the object, respectively, are used by attaching to the nouns *'Ai'* (Eng. child) and *'sagwa' (*Eng. apple*)*. The endings *'neun-da'* whose function ends a sentence as a declarative type with present tense following the stem *'meog-'* (Eng. eat). Also, we

notice that the sequence of sentence components has the order 'Subjcet (Ai-ga) + Object (sagwa-leul) + Predicate (meog-neun-da)'.

Another property in the word order of Korean is that the modifier always precedes the modified i.e., [modifier+modified]: for instance, demonstrative adjectives precede the nouns they modify in (48a), the genitive NP precedes the possessed noun in (48b), the adverb appears before the verb in (48c), and relative clauses precede the nouns in (48d).

(48) a. <u>masissneun</u>   sagwa   (Korean)

        delicious   apple

        'A delicious apple'

    b. Totoro-<u>ui</u>   usan

      Totoro-GEN   umbrella

    'Totoro's umbrella'

    c. sagwa-ga   <u>maeu</u>   masiss-eoyo.

      Apple-NOM   very   delicious-DEC

      'The apple is very delicious

    d. [eoje   nae-ga   meog-eoss] <u>-deon</u>   sagwa

      [yesterday I-NOM   eat-PST]-RELATIVIZER   apple

     'The apple that I ate yesterday'

As can be seen in (48a) - (48d), all the modifiers that are undelined are placed before the modified elements.

2.2.2.2.   Different types of word order

As is widely known, one of   the features of Korean is that the change in word order is relatively free between sentence components[34] (Hale 1983, Jelinek 1984, Baker 1996).

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[34] However, not all of the constituents can move freely, as the adverb 'jal' (well):

(i) a. Geu-neun   norae-leul   <u>jal</u>   buren-da

       He-TOP   song-ACC   well   sing-DEC

        'He sings well'

    b. *Geu-neun   <u>jal</u>   norae-leul   bureun-da

    He-TOP   well   song-ACC   sing-DEC

Generally, the movement of adverbs is free in Korean, but the adverb that modifies only a certain predicate or

(49) a. Totoro-ga   dotori-leul   gajyeoga-n-da.   (SOV)

      Totoro-NOM   acorn-ACC   takes-PRS-D

      'Totoro takes an acorn to the mountain.'

    b. dotori-leul   Totoro-ga   gajyeoga-n-da   (OSV)

      acorn-ACC   Totoro-NOM   takes-PRS-D

    c. Totoro-ga   gajyeoga-n-da,   dotori-leul   (OV,S)

There are no dramatic change in basic meaning that each sentence of (49a) – (49c) conveys. However, it is generally argued that so-called scrambling as in (49b) and right dislocation as in (49c) induces some sort of discourse effects by means of preposing elements. As will be discussed later in chapter 4 and 5, this dissertation will assume that scrambling has a focus effect. In the case of (49), I prefer to analyze it as bi-cluasal and ellipsis approach (Kuno 1978, Tanaka 2001, see Ch.3 in section 3.2.2.4 for relevant discussions) .

Another example of a word order change is the element attached by *-neun* 'auxiliary particle'. In traditional Korean grammar, '*-neun*' is an auxiliary particle as a morpheme that provides additional meaning to an element or a sentence, but it is referred to as a 'topic marker' in the terminology of generative grammar. When an element marked by '-neun' is placed in the initial position,, it is perceived as a shared information between the speaker and the hearer as in (50).

(50) dotori-neun   Totoro-ga   gajyeoga-n-da.   (O-neun SV)

    acorn-TOP   Totoro-NOM take-PRS-DEC

    'As for the acorn, Totoro takes it.'

The basic usage of '-neun' is to represent shared information, but it can also be used to contrast with the   '*-neun*' marked element-so called Constrative Focus':

(51) Totoro-ga   dotori-neun   gajyeoga-n-da .

    Totoro-NOM   corn-CF   take-PRS-DEC

    'Totoro takes only acorns, but not takes other things'

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constituent is quite restricted in its postion (NIKL 1999: 28).

The meaning and syntactic role of the particle '-neun' as topic and contrastive focus marker will be dealt with in more detail in Chapter 4 and 5.

In addition, constructions with multiple Case marking can be derived due to scrambling or possessive movement to the sentential initial porisition. Basically, they give focus effects and empacizes an element marked by doubled case marker (abbreviation: Cl (Numeral Classifier):

(52) a. Totoro-ui   jageun usan.
       Totoro-GEN   small umbrella.
       'Totoro's small umbrella.'
     b. Totoro-ga   usan-i   jag-da.
       Totoro-NOM   umbrella-NOM   small-is
       'Totoro's umbrella is small.'

(53b) shows that both possessor and possessee can be nominative marked when the initial element marked by nominative case marker is focused in Korean. The following is another type of constructions with multiple case marking. I provide the case of classifier phrases.

(54) a. Totoro   du   mari-ga   wa-ss-da
       Totoro   two   Cl-NOM   come-PST-DEC
       'Two Totoros came.'
     b. Totoro-ga   du   mari   wa-ss-da
       Totoro-NOM   two Cl   come-PST-DEC
        'Two Totoros came.'
     c. Totoro-ga   du   mari-ga   wa-ss-da
       Totoro-NOM two   Cl-NOM   come-PST-DEC
       'Two Totoros came.'

(55) a. Totoro-ga   dotori du   gae-leul   gajyeoga-ss-da
       Totoro-NOM acorn   two   Cl-ACC   take-PST-DEC
       'Totoro took two acorons.'
     b. Dotori   du gae-leul   Totoro-ga   gajeyoga-ss-da

     acorn   two Cl-ACC   Totoro-NOM   take-PST-DEC

     'Totoro took two acorons.'

  c. Dotori-leul   du gae-leul   Totoro-ga   gajyeoga-ss-da

     acorn-ACC   two Cl-ACC   Totoro-NOM   take-PST-DEC

     'Totoro took two acorns.'

When an animal is counted, a classifier called 'mari' is used in this case. As can be seen in (54c) and (55c), the appearance of subjects and objects doubling is possible. Likewise, the element located in the initial position of the sentence gives an emphasis or can be focused. In what follows, I would like to introduce another syntactic property of Korean: *pro*-drop. In particular, the discussion will focus on how it differs from Spanish which belons to *pro*-drop languages.

2.2.2.3. Radical *pro*-drop & discourse-oriented language

In this section I would like to introduce the *pro*-drop phenomenon that often appears in Korean. This terminology *pro* which was proposed by Rizzi (1982, 1986) means an empty pronoun in the canonical subject position, namely, the pronominal element *pro* is phonetically null. If anguages employ this *pro*, which is a null pronoun, they can also be called "*Null-Subject Languages*" (henceforth, NSLs), such as most Romance languages, like Spanish, Italian and Catalan, etc., and some Asian languages, such as Korean, Japanese, and Chinese, etc. (see D'Alessandro 2014 for a more detailed classification of NSLs). In contrast, in non-NSLs, the subject must appear overtly, like in English and French. Let us consider the following examples:

(56) a. *(He) has returned home.   (English)

    b. (El) ha vuelto a casa.   (Spanish)

    c. (Geu-neun)   jib-euro   dolao-ass-da.   (Korean)

     (He-TOP)   home-to return-PST-DEC

As seen in Spanish (56b) and Korean (56c), the full DP subject *El* in Spanish and *Geu-neun* in Korean of the clause can be ommitted in sentences (the pronoun can be used to give emphasis). In English (56a), however, the use of the pronoun '*He*' in the clause is obligatory. In this sense, Korean can also be reffered to as the typical NSL and the subject in the

different structural configurations, such as the interrogative, negative, exclamative, and embedded sentences, can also be omitted, like in Spanish [35]. We shall consider here, representatively, only the interrogative and embedded sentence of the aforesaid structures:

(57) a. *pro*   bada-ro ga-ni?   (Korean)
             sea-to   go-Q
    'Are/Is (*pro*) going to the beach?'
   b. *pro*   malha-l jul   moreunda-go   *pro*   sengakha-n-da
             speak-can   don't know-REL   think-PRS-DEC
    '(*pro*) think/thinks that (*pro*) can't speak'

(58) a. *pro*   vas   al   mar?   (Spanish)
             go-2.Sg.   to-the   sea
    'Are *pro* (you) going to the beach?'
   b. *pro*   pienso   que   *pro*   no   pueden   hablar.
             think-1.Sg.   that   not   can-3.PL   speak
    '*pro* (I) think *pro* (they) cannot speak.'

Despite the fact that they have *pro* in common between Korean and Spanish, it can be seen that there are important differences between the verbs of the two languages. Korean can also leave its subject "unexpressed", though, its verb has only information of tense and sentential type in the interrogative sentence (58a) *ga-ni* (go-question) and in the sentence with embedded clause *malha-* (speak) / *sengakha-n-da* (think-present-decralative). By constrast, Spanish which corresponds to fusional languages has inflected verbs for 'tense', 'person' and

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[35] The object or both object and subject can also be ellipsed in Korean. Consider the following data translated from Chinese (Huang 1984) into Korean:

 (i) Speaker A: Zhangsan-i   Lisi-leul   bo-ass-ni?   (Korean)
             Zhangsan   Lisi-ACC   see-PST-Q
         'Did Zhangsan see Lisi?
   Speaker B: (geu-ga)   (geu-leul)   bo-ass-eo
             He-NOM   he-ACC   see-PST-FE
         '(He) saw (him)'

'number' *vas* ("you go"—2nd person-singular-present) in (58b) and *pienso* ("I think"-1st person-singular-present) / *pueden* ("They can"-3rd person-plular-present).

Grammatically, Spanish has a subject-verb agreement, but in Korean the verb does not contain the subject's information.

(59) a. <u>Yo</u>   cant-<u>o</u>.   (Spanish)

    I   sing-1.Sg.

  'I sings'

  b. <u>María</u>   cant-<u>a</u>.

    María   sing-3.Sg.

    'María sings.'

(60) a. <u>Na</u>-neun   norae   buleu-n-da.   (Korean)

    I-TOP   song   sing-PRS-DEC

    'I sing a song'

  b. <u>María</u>-ga   norae   buleu-n-da.

    María-NOM   song   sing-PRS-DEC

    'María sing a song'

In Spanish, the person-number specification of the underlined subject is included in the verb. On the other hand, Korean does not show the same information. This fact indicates that, if a subject is omitted, it is difficult to find the subject in Korean, while the subject in Spanish is roughly grasped through the verb which is the subject. Therefore, Korean native speakers can notice the subject only by the flow of discourse.

   Nontheless, a subject-predicate agreement is also found in pulural forms with the plural marker '*-deul*', although it is a bit awkward, to the ear:

(61) a. geu-*deul*-i   tteon-ass-eoyo-*(deul)*   (Korean)

    he-PL-NOM   leave-PST-INFORMAL FE-PL

    'They left'

  b. *pro*   tteon--ass-eoyo-*(deul)*

       leave-PST-INFORMAL FE-PL

  '[They] left'

As can be seen, the plural particle *-deul* in the subject is equally marked in the verb, and even if the subject is not pronounced, it can appear in the sentence[36]. The following example also shows subject-verb agreement in the sentence of honorific expression:

(61) a. eomeo-*nim*-i   siksa-leul   ha-*si*-eoss-da   (Korean)

       mother-HON-NOM   meal-ACC   do-HON-PST-DEC

       '(My) mother had a meal.'

The italicized honorific word for subject *-nim* agrees with the honorific verb *-si*[37]. According to the data in (60) and (61), we can notice that in Korean there is also subject-verb agreement. However, I will further insist that there is no subject-verb agreement in Korean due to the fact that the lack of agreement does not affect the grammaticality of the sentence; rather, the honorific agreement may be related to cultural reasons. Considering this from a syntactic point of view, it can be shown as follows:

(62) a. [$_{TP}$ geu-*deul*-i   tteon-ass-eoyo-*(deul)*]   (Korean)

     b. [$_{TP}$ eomeo-*nim*-i   [$_{vP}$ [$_{VP}$ siksa-leul   ha-*si*-eoss-da]

Compared to Korean, the rich agreement of Romance languages has led to the setting of the following parameters:

(63) a. Taraldsen's (1978) generalization: the relationship between rich agreement and null

                              subject.

     b. Chomsky (1981: 241): "when there is overt agreement, the subject deletion {is}

                            recoverable."

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[36] Koopman (2005) suggests that the plural subject optionally triggers the verbal inflection to subject-verb agreement.

[37] In Korean, if a person who is much older than the speaker (or highly position in an organization) is indicated as the subject, it is necessary to add a particle to it like *-nim*, and honirific verbal particle *-si*, which is inflected due to its subject, must be attached to the verb.

c. Rizzi (1986): requirements of "licensing" and "identification" for pro-drop. A null subject (*pro)* is 'licensed' by the governing node INFL, and 'identified' its missing φ-features (i.e., person, number and gender), based on the rich agreement inflection.

Although Korean allows the null subject, as can be seen above, it has little verbal inflection (non rich agreement). The subject as well as the object can be null element, which is contrary to Spanish. Due to the difference between two languages D'Alessandro (2014) classifies the term as Canonical NSLs or full *pro*-drop languages for Spanish and Radical NSLs or radical (discourse) *pro*-drop for Korean.

The reason why Korean is often referred to as a discourse *pro*-drop language is that, as indicated above, the object, or both object and subject, can be omitted[38]. According to Huang (1984), a language that does not have rich agreement allows null subject and object, whenever they choose their antecedents from the discourse. Namely, it is understood in the same meaning that the null subject (or both null object and subject) is grasped through the flow of discourse. Huang (1984) distinguishes NSLs and non-NSLs by the [+discourse-oriented] parameter. From this independent parameter, Kim S-Y (2007:64) summarizes its clustering properties: (i) discourse-oriented languages have topic prominence that forms the topic-comment construction by the topic element located in the initial-sentence, following Li & Tompson (1976); (ii) discourse-oriented languages have a topic deletion and a topic chain rule, following Tsao (1977) and Huang (1984); (iii) an anaphor can pick up the antecedent from discourse, across the sentence boundary. The clustering properties of all of the above can be seen in the following sentence:

(64) Binding of a topic to a null argument

    [*Top e_i*], [Zhangsan   shuo   [Lisi   bu   renshi   *e_i*]].   (Chinese)

             Zhangsan   say   Lisi   not   know   *e*

    'Zhangsan said that Lisi didn't know [e].'

    Huang's analysis: 'Him, Zhangsan said that Lisi didn't know [∅].'

---

[38] In particular, in Korean discourse, since the subject is often not clearly indicated, confusion in dialogue often arises.

e_i=Him, Him≠Zhngsan, Him≠ Lisi, Him= discourse topic

According to Huang (1984), the null object is bound by the null Topic element and he assumes that the null object is defined as a variable (not pro), in the sense of Chomsky's (1981:330) A'-bound in an A-position. In the case of the null subject, it can be either *variable* (a null subject in a simple sentence) or *pro* (i.e., a null subject in an embedded clause is c-commanded by the matrix antecedent). Consider the following Korean sentence translated from a Chinese sentence:

(65) [Geu-eun$_i$], [Zhangsan-i   [Lisi-ga e_i molassda]-go malhaessda]]   (Korean)

    he$_{-TOP}$ Zhangsan$_{-NOM}$ Lisi$_{-NOM}$ e didn't know-that   said-PST-DEC

    '[As for him], Zhangsan said that Lisi didn't know [∅]'

As can be seen in Korean (65), the topicalized constituent shoud be marked by the topic marker *'-neun'*,(i.e., geu-neun$_i$) in A'-position and c-commands its antecedent (null object). Furthermore, the topicalized element *geu-neun* can be deleted. I believe these phenomena are related to not only object scrambling, but also to the role of the topic particle '*–neun'* and topicalization that is treated as left periphery in Korean.

   To sum up, in this section, we have confirmed that Korean and Spanish both languages exhibit *pro*-drop phenomena, but there are some differences in terms of verbal inflection. That is to say, in Korean, verbs do not involve subject information, whereas in verbs of Spanish, the information about person and number of subject is fused. In this sense, it seems reasonable to classify *pro*-drop in Korean as a discourse *pro*-drop, unlike Spanish, which is canonical Null Subject Language. Bearing this in mind, we will capitalize on our proposal in Chapter 5.

  In what follows, we will introduce the case-drop phenomena commonly found in Korean. Morover, a parallelism between object case marking in Spanish and case markers in Korean will be discussed in terms of semantic.

2.2.2.4. Case-drop

As observed in the following examples (66), Korean native speakers frequently employ case-drops in conversations[39]. In particular, pre-education children and foreigners who are in beginning level of the Korean language are often used with the elements without nominative and accusative case markers as in (66a):

(66) a. Na-∅   bab-∅   an-meog-eo   (Korean)
        I-∅   food-∅   not-eat-FE
        'I don't want to eat'
     b. Minsu-ga   sagwa-∅   meog-neun-da
        Minsu-NOM   apple-∅   eat-Nonpst-DEC
          'Minsu is eating an apple'
     c. Oneul   Minsu-∅   hakyo-ey   ga-ss-eo
        Today   Minsu-∅   school-Loc   go-PST-DEC
        'Minsu wento to school today.'

                                                              [from Chung 2015: 2]

It is generally assumed that bare NP (i.e., without the case particles) is a neutral sentence in a pragmatic account, when nominative and accusative case markers appear, and when the subject or the object constituent is focalized (Park 1995, Han 1999, Choi-Jonin 2001, a.o.). Let's look at the rhetorical interrogative data in which *'-ga'* and *'-leul'* are obligatorily realized:

(66) a. Nu(gu)-ga/*-∅   ala,   nae-ga   ildeung ha-lji?   (Korean)
        who-NOM/*-∅   know,   I-NOM   frist prize do-Conjecture
        'Who knows, I could win the first prize?'
     b. Jeo nai-e   mueos-eul/*-∅ /*-eun/*-do   mot meog-gess-eo?
        that age-at   what-ACC/*-∅ /*-TOP/*-too   not   eat-Conjecture-FE
        'What couldn't you eat at that age?'

                                                                     [Han 2012:41]

---

[39] To may ear, when the elements are case-marked, they may convey unnatural expression, or give particualr emphasis.

The rhetorical interrogative is not the speaker's question, but pragmatically manifests the speaker's strong descriptive expression, even though it has the form of an interrogative sentence. In this condition, *-ga'* and *'-leul'* are essential constituents. However, some structures do not allow case-drop (Abbreviations: NOM (Nominative), ACC (Accusative), CF (Constrative Focus), D (Declarative), FOC (Focus), TOP (Topic), Cl (Numeral Classifier), COP (Copular)):

(67) a. Younghee-*(ga)   i chaeg-eun   sass-da.   (Korean)
        Y-*(NOM)   this book-CF   bought-D
      'Younghee bought this book (not other books)

[from Gill & Tsoulas 2004: 136 (22)]

(67) shows that the case-drop is not permitted in the position preceding the element marked with *'-(n)eun'*, which is classified as auxiliary particle. In addition to this, in the cleft sentence which gives focus effects, the accusative case marker is banned as adduced in (68b):

(68) a. Totoro-ga   gajyeogan geos-eun   dotori   du gae-i-da.
        Totoro-NOM   took   GEOS-TOP/FOC   acorn   two Cl-COP-D
        'It is two acorns that Totoro took.'
     b. *Totoro-ga   gajyeogan geos-eun   dotori-**leul**   du gae-i-da.
        Totoro-NOM took   GEOS-TOP/FOC acorn-ACC two Cl-COP-D

   With respect to the accusative case-marking & the case-drop phenomenon, there is an interesting discussion of Korean when compared to Spanish. According to Lee & Cho (2003), Torrego (1998), Enç (1991), Mahajan (1990), Diesing (1997), and Webelhuth (1992) specificity is related to the accusative case marker.

(69) a. Hansigan dongan   John   pyenji   sseo-ss-da   (Korean)
         1-hour   for   John-NOM   letter   wirte-PST-DEC
     b. Hansigan dongan   John-i   pyenji-**leul**   sseo-ss-da
         1-hour   for   John-NOM   letter-ACC   wirte-PST-DEC
      'John wrote a letter for an hour'

[Lee & Cho 2003:44]

As seen in (69a), the indefinite NP can appear without the accusative case marker *'-leul'* as a bare NP; namely, the object is case-dropped. As mentioned before, the morphological marking of objects is related to the specificity property hence (69b) becomes an ambiguous sentence. One with [+specific] is a particular single act reading and another with [-specific] is a repetitive reading, i.e., there is no need to put *'-leul'* to mark the accusative case because NP can receive the structural case from its verb 'write'. In contrast to (69b), (69a) cannot receive a meaning for the particular act because the NP does not have the *'-leul'* that refers to a specific entity.

The related phenomenon is observed in Spanish as well. Torrego (1998) argues that the overt case marker correlates with specificity and affects the telicity. Let us consider the Spanish examples:

(70) a. Laura ´escondió **a**   un   prisionero   durante   dos   años.   (Spanish)
        Laura   hid   a   prisoner   for   two   years
    b. Laura   escondió un   prisionero   durante   dos   años.
        Laura   hid   a   prisoner   for   two   years
        ´Laura hid a prisoner for two years'

[from Torrego 1998:21 cited in Lee & Cho 2003: ibid.]

According to Torrego's (1998) account, the sentence with the accusative case marker *'a'* has a repetitive reading and a single act reading, as in Korean. However, without an overt case marker it has only the repetitive reading, as in (70a). This difference is attributed to the specificity of the object case marker.

In sum, the specific indefinite NPs require the accusative case marker to appear in its specificity property. In the case of definite NPs, they are not always marked with the accusative case particle as a specific interpretation. Likewise, the nominative case marker indicates NP's [+exclusiveness] or gives a selection designation effect that one thing is chosen among the other options by *'-ga/-i'*.

2.3. Conclusions

This chapter has dealt with the general linguistic typology in Korean including basic morphological and syntactic properties. Based on these fundamental concepts, we have also

explored the different types of word order which can be derived from canonical SOV ordering and semantic effects by preposing elements.

The most significant trait of Korean morphology is that it has agglutinative properties, which is observed in Altaic language family. That is to say, case and auxiliary particles for nouns and endings (i.e. tense, modal, sentential type or illocutionary force morphrmes) for verb stems can attach to each other with a certain set order rule to convey syntactic and pragmatic information, unlike Spanish, which belongs to fusional languages when it comes to linguistic typology. To be specific, we hav seen that it is hard to find subject-verb agreement in terms of specification of person and number in verbs, whereas verbs in Spanish always require subject-verb agreement.

These differences between two languages will then provide an account of how verbs behave and how the nominative case is assigned in syntax of both languages. Furthermore, on the basis of given typological information, we may predict an interaction between the phenomena discussed in this chapter and the left periphery, which is our main subject.

Finally, null subject phenomenon commonly observed in both languages has differed depending on whether verbs contain subject information. In Korean, it was shown that both subjects and objects can be dropped according to the flow of discourse, while in Spanish, only subjects are obligatorily not pronounced. As for the case-drop, we have found that particles (or case markers) in Korean and object case marker in Spanish give a specificity in terms of semantic.

Chapter 3

Word order under LCA approach

3.1. Introduction

This chapter explores the overall SOV word order formation in Korean bearing the relevance with the left periphery in mind. To derive SOV, two things should be considered in this language.

First, how the final head is derived such as {XP,Y} comparing to the process of derivation of head initial {Y,XP}. In this chapter, I capitalize on Kayne(1994)'s LCA approach, which may be a comparative cross-linguistically identical methodology given that a structural hierarchy gives a linearization. Specifically, the head-final system under LCA will be discussed separately as the OV order in simple sentences and the CP-V {=XP-that V} order in relative sentences. In this dissertation, I assume that OV word order can be regarded as the result of object shift from VO base-order (*contra* Chomsky 1981, 1986b; Stowell 1981; Travis 1989, Saito & Fukui 1998, Fukui & Takano 1998 for OV base-order) as argued by Kayne (1994). To pursue this assumption, following Zwart (1992) and Ad Neeleman (2015), a V-O adjacency test is provided in section 4.2.2.3. as a piece of evidence for object leftward movement.

As for the CP-V order, I also provide the possibility that a relative clause is base-generated on the right side of the main verb may have moved to the left side of the complementizer yielding {XP_i-that V t_i} order, based on the asymmetry between complementizer-initial languages and complementizer-final languages which is provided by Kayne (1994). In order to support this argument, a result of a parasitic gap test will be adopted as a piece of evidence that the Korean relative clause is born not as a mono-clause but as a bi-clause. If an embedded clause was base-generated separately from a matrix phrase as a bi-clause, we could infer the possibility that an embedded clause undergoes the movement of the left side of the complementizer and then to the left of the matrix verb. In fact, however, this method involves a complex derivation process as an unlimited movement and thus many problems are expected. Therefore, this work points out that requiring several stages of movement of an element under LCA-type approach can be problematic in terms of wh-island constraints in terms of forming [CP-V] order from [V-CP] base-order.

The second thing that we have to consider is how to derive inflectional verbal morphemes in Korean [V_{root}-Tense-(Modal)-Force]. As we have already studied in the previous section, the grammar properties in verbs of Korean such as tense, illocutionary force and modal exist as morphemes and these are derived in a way that they are suffixed or agglutinated in a certain hierarchical order on the right side of the verbal root. Contrarily, in Spanish, these properties are intensively distributed in functional categories T and C, triggering left movement of verb, and verb-subject inversion is frequently observed due to this verb raising. However, considering that subject or object-inversion is never allowed in Korean, it can be assumed that the verb movement in this language may not occur. This chapter put forwards that there is no verb movement in Korean, rather it is merged in PF according to Takano (2004), or a massive scale phrases movement leftward under LCA-type approach could be adjuncted under each inflectional verb morpheme so-called 'roll-up movement'. A brief summary of what will be discussed in this chapter is as follows:

(1) a. OV order derived from VO base-order on the basis of Adjacency

    b. [CP V] order derived from [V CP] base-order on the basis of bi-clause

    c. Discussing the problems with respect to the unlimited massive phrasal-movement in [CP-V] ordering that induces island constraints under the LCA-type approach.

    d. No verb raising or roll-up movement under LCA

No verb movement in Korean is associated with the fact that the behavior of verbs does not affect the left margin part of sentences in this language, whereas the interaction between verbs and informative elements is quietly observed in Spanish including Romance language (Gallego 2010 ch.3). Nonetheless, empirical data will be suggested in chapter 5 that a side effect could be occurred by negation raising. In addition, this chapter points out that the role of the functional category T in Korean is actually weaker or inactivate than that of Spanish on the basis of coordinate structures and pre-verbal / post-verbal negations tests. Each of these constructions makes us suspicious of the role of check [+tense] feature and of assigning the [+nominative case] feature of the functional category T in Korean. This will be connected with our proposal that the topic marker '–*neun*' in Korean is divided into the role and meaning in the [topic-comment] construction and in the information construction as the aboutness/old information topic. In other words, the subject phonologically realized as '-ga/-

i' is assigned in the [Spec-vP], the thematic topic *'–neun'* appears in the [Spec-TP] and the information topic *'-neun'* is realized in the [Spec-TopP] within CP-area.

Furthermore, the assumption that there is no verb movement in Korean suggests that the verb part such as Force-Fin system cannot be compatible with fronted XPs such as wh, focus and topic as in Romance languages in order to give some discourse effect. As is well knows, in Rizzi's (1997) *cartography,* the fronted XPs can be sandwiched between verb systems, and this word order change provides a semantic effect. Although this chapter focuses on the discussion that XPs move to the left side but verbs move to the rightward (or no move), the next chapter will show that informative morphemes such as *'–neun'* (topic marker), *'-man'* (focus marker) or *'–ani'* (negation) can occur between the Force-Fin system according to Saito (2010).

Discussion is divided as follows: Section 3.2. describes the OV configuration from a syntactic perspective based on Kayne's (1994) Linear Correspondence Axiom. This section also includes the discussions in favor of arguments for head final derivation by the left movement. of complements In this section, the complement-head order are divided into the [CP-V] order and [O-V] order. The [CP-V] will be first discussed providing the Parasitic gap, Binding condition and A/A'chain as the grounds for the left movement of compelements. In doing so, the problem of LCA-type approach for [CP-V] ordering will be arised. On the other hand, in section 3.2.2.3, V-O adjacency test as evidence to prove object-shift which yields OV. In addition, the right dislocation is also considered since [SV,O] order is usually possible. In section 3.3, the whole word-order patterns are considered in detail, focusing on the inflectional verbal formation in Korean. The sub-section 3.3.1 accounts for the possible syntactic derivation as a movement of head and phrase. After understanding the properties of verbs in Korean, in section 3.3.2 I delve into the difference of TP projection between Spanish and Korean as a macro parameter. At the same time, the subject position is also discussed in this section as a sub-part. Section 3.3.3 aims specifically at observing the patterns of no verb raising in negative constructions. The final part will provide a brief summary of the issues discussed in this chapter.

3.2. The interaction of linear order and hierarchy: evidence for XP-movement

Over the years many syntactic dependencies have been discussed in the literature. In traditional terms, an ever-present topic has been what the relationship is between linear order (syntagmatic or *in presentia* relations) and hierarchy (paradigmatic or *in absentia* relations).

Almost any syntax textbook discusses these notions, pointing out that they are different. That said, and although there is robust evidence that linear order is irrelevant for many syntactic processes (that's where the standard poverty-or-stimulus arguments become relevant; for arguments against this view see Bruening 2014a, Al Khalaf & Bruening 2015), it is also worth asking whether there is any relationship between those notions. This section touches on that issue by focusing on facts from Korean, whose main properties were introduced in the previous chapter. We will first discuss the answer to that question provided by Kayne (1994), and then we consider its effects when studying VP and CP phenomena (broadly speaking, facts related to word order).

3.2.1. Basic methodological framework on complement-head order

Before entering into the discussion on the complementizer (CP) layer corresponding to Left Periphery, it is important to consider how the structural representation of a clause is traditionally analyzed in syntactic form, i.e., the process of syntactic formation before reaching the CP area (discourse, modality, etc.) area. The following is an excerpt from Rizzi's (1997) description on the three kinds of structural layers of a clause:

1. The lexical layer, headed by the verb, the structural layer in which theta assignment takes place. → VP

2. The inflectional layer, headed by functional heads corresponding to concrete or abstract morphological specifications on the verb, and responsible for the licensing of argumental features such as case and agreement. → IP/TP

3. The complementizer layer, typically headed by a free functional morpheme, and hosting topics and various operator-like elements such as interrogative and relative pronouns, focalized elements, etc. → CP   [from Rizzi 1997: 281]

As described above, VP is a phrase which is built around the role of a verb and the V headed by a verb assigns thematic roles; the agent theta role and theme role to inserted lexical items. On the other hand, IP is a functional phrase, whereby the functional head I is responsible for the nominative case assignment, subject–verb person agreement, and tense inflection, on the basis of the morphological specifications on the verb. As for CP, it is also a functional phrase and the head C is connected with morphemes or operators regarding discourse and modality.

VP is the smallest unit and the next step of syntactic formation of a clause is IP. Given that the discourse and modality are expressed in CP layer as suggested by Rizzi (1997), the

structure can be extended to the CP part by moving or adding lexical items or phrase to upper projection, as shown in (4b):

(4) a. VP → IP → CP

   b. VP → IP: SVO, …   → CP: OSV, VOS, VSO,…

Consequently, under the *cartographic project* of Rizzi (1997), the layers of VP-IP form standard word order and the CP level is the position to occur word order change for special interpretation, as in (4b).

   In the literature, each layer (VP, IP, CP) is built up by means of an X-bar configuration (Chomsky 1970; 1991; 1993a, Jackendoff 1977). The advantage of this configuration is that it can capture the semantic-relationship among constituents, regardless of linear order. For example, the word order of two phrases is the same, but there may be a subtle difference in meaning. The X-bar structure can allow us to grasp this difference. This is because the two linear orders are structurally different. The examples in (5) show that in Spanish, for instance, *cuatro libros azules* (*Eng.* "four blue books") can have two possible interpretations depending on the hierarchically different structures:

(5) cuatro libros azules   (Spanish)

   four   books blue (literally)

(6) a.   NP   b.   NP

        cuatro   cuatro   libros   azules

              libros   azules

The structure of (6a) has the interpretation "there are four blue books", because *libros azules* (Eng. "books blue") is first formed and then *cuatro* (Eng. "four") is merged above *libros azules*, the head *libros* (Eng. "books") is semantically closer to the *azules* than *cuatro*. Contrary to this, (6b) indicates "there are only four books", since the *cuatro libros* is added to

the projection of *azules* after forming *cuatro libros*[40]. In this sense, we can predict that binary branching gives more semantic accuracy than a trichotomous one.

(7) a.

```
              K
          ／  |  ＼
         α    β     δ
       cuatro libros azules
```

b.

```
              XP
           ／    ＼
          α        X'
        cuatro   ／  ＼
                X⁰      β
              libros  azules
```
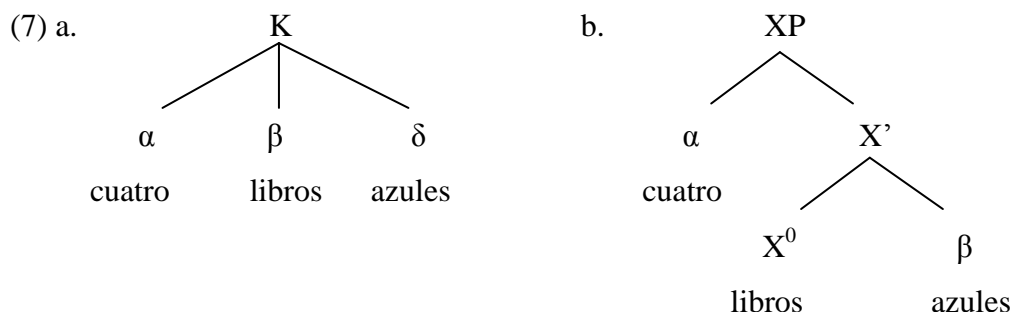
Structure (7b) is more efficient than (7a) to realize the semantic-relationship between the head and two elements at one time. The main points of X-bar configuration are endocentric (Jackendoff 1977) and binary branch constructions. By inserting intermediate X' projection[41], the adjacency of head X^0 and its complement β is necessarily required instead of its specifier α. Thus, X-bar theory allows the structural properties of languages to discern the meaning between heads and other constituents. In this vein, NP, VP, AdjP, AdvP, PP, etc. can be formed by three constituents; head, complement, and specifier in the aforementioned X-bar schema:

---

[40] In the case of Korean, in this example, a difference in linear order can give a different meaning:

(i) a. paran chaeg nae gueon   (Korean)

   blue book   four CLA   *Int*. "There are four blue books"

   b. nae gueon-ui   paran chaeg

   four CLA-of   blue book   *Int.* "There are only FOUR blue books, no more"

Therefore, if a linear order appears differently as in (ib), which is different from (ia), it may be analyzed that in Korean, *nae gueon* (Eng. four CLASSIFIER) has moved to the left from the structure (ia) accompanying *ui* (Eng. "of").

[41] Later, X-bar structure with head parameter (Chomsky 1981, 1986b) are eliminated due to the reason that the several directionality parameters should be established depending on the existing word order in world's languages. For example, the following parameters S-H-C, S-C-H, H-C-S, and C-H-S order (S=specifier, H=Head, C=complement) are parameterized for SVO, SOV, VOS, and VSO. respectively. It has been pointed out that the grammar excessively overgenerates the number of parameter types.

Chomsky (1994) proposes *Bare Phrase Structure* (PBS), in which is removed X' projection. As for the linear order in *PBS*, he uses Kayne's (1994) LCA and Phonological Component.

(8)

XP
Specifier   X'
            X⁰   Complement
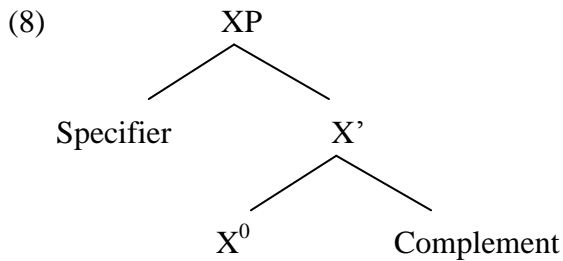
XP = Maximum Projection

X' = Intermediate Projection

In the case of VP, which is the domain where theta roles are assigned, the configuration is as follows (10a) in English, and on the right, there is VP configuration of Korean (10b) which is applied to the Korean example in (9):

(9) Yuna-ga   sagwa-leul   meog-eoss-da.

   Yuna$_{NOM}$ apple$_{-ACC}$ eat$_{-PST-DEC}$

   'Yuna eats an apple.'

(10) a. VP configuration

VP
Specifier   V'
            V⁰ ········► Complement

external
thematic
role

internal thematic role

b. Korean VP

VP
Yuna   V'
      meog- ········► sagwa
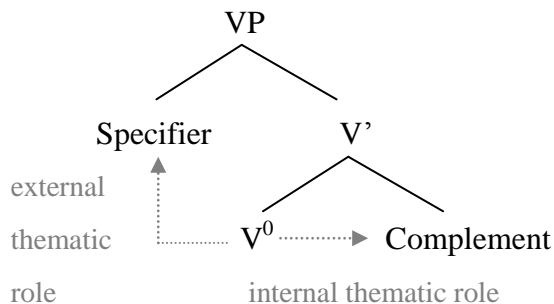
X-schema standard word order: SVO
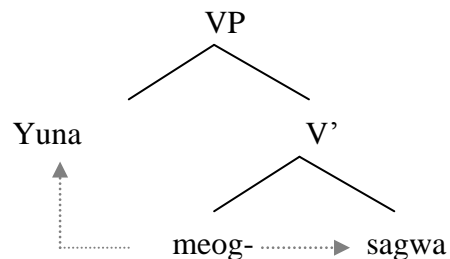
Korean standard word order: SOV

In (10a), the V⁰ head assigns the internal thematic role to its complement and the external one to the specifier; in the case of Korean (10b), the THEME role is assigned to the complement DP from the transitive verb *meog-* (Eng. "eat"). At the same time, the verb assigns an AGENT theta role to its external argument *Yuna*.

   As for the case markers, since the *v* that is responsible for the assignment of the accusative case and the T where the nominative case is checked has not yet entered into that configuration as shown in (10b), the NPs have not been assigned case. The nominative case assignment and functional category T for Korean will be discussed in section 4.3.2.

As is well known, it must be noted that Korean canonical word order is SOV, in other words, it is a head-final language (complement-verb), a fact that is not directly encoded in X-bar templates. Thus, the SOV linear order has been identified by "headedness parameter" (cf. - Chomsky 1981, 1986b; Stowell 1981; Travis 1989) to represent cross-linguistic differences in word order under X-bar structure. Nevertheless, there have been some problems to analyze a number of word orders with this apparatus, as mentioned in footnote 2, i.e., the requirement of several parameter settings. Furthermore, this structure, which requires strict adjacency of head and complement, is hard to explain the order that the verb and its complement are not adjacent, such as VSO, OSV.

Kayne's (1994) Linear Correspondence Axiom (henceforth LCA) is what appears in this flow. It attempts to account for the distribution of possible word order among the world's languages as one device. In other words, LCA reflects Specifier-Head-Complement (SVO) as universal canonical word order, and thus SOV order is, in turn, a result of a movement transformation of an NP/DP[42] or a TP from the base (complement) position to a specifier position:
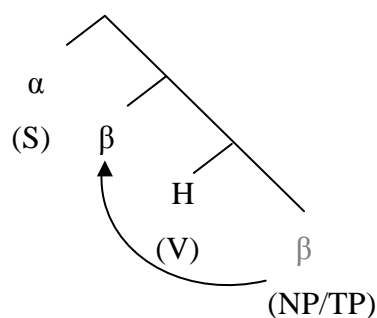
(11) a. Kayne (1994)   b. Korean
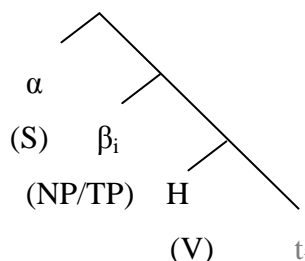
[adapted from Kayne 1994: 52-53]

This author suggests that the pure agglutination nature of head-final languages, which is never fused among morphemes, can be a reason for the complement movement. i.e., XP-movement[43].

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[42] From now on, I will apply nouns of Korean that can be located in subject and object position to NP hypothesis, not DP due to the article-less language.

[43] I point out that Kayne (1994) does not discuss the accusative case particle yielding O-V order, but only

At this point, when native speakers who use SOV see the hypothesis that they should always shift the object/complement to the leftward side of the verb in their cognitive mechanism, will first cast doubts on the following: How does the agglutinative nature relate to XP-movement and what is the certain **argument** of O-V resulting from Object Shift? In order to pursue this stipulation for O-V ordering, some evidence is provided in Kayne (1994). Skepticism about shifting complement/object for O-V order suggests that the evidence proposed in Kayne (1994) is worth pursuing in a longer discussion. Accordingly, I would like to test his suggestions when applying to Korean data to see whether the arguments are persuasive. This will be dealt with in section 4.2.2.

In fact, we can approach the head parameter for Korean because left-adjunction and right-adjunction are both freely available in X-bar configuration [44] [45]. Moreover, the head parameter-approach is easy to accounts for the syntactic phenomenon of Korean. If O-V is base-generated in X-bar constructions heading to rightward, there is no need to set up the intricate transformation (or movement). Despite this fact, the reason I want to approach Kayne's idea is due to the fact that there has been a lot of discussion on the XP-movement to leftward; there have also been significant controversies that LCA is not satisfied to reflect linearization under X-bar theory in the light of multiple subjects and head-final languages. Therefore, it is deemed that the LCA approach is worthy of discussion for Korean too. Moreover, applying the X-bar schema under Kayne's (1994) LCA-type to Korean data requires a more careful analysis of the properties in this language. This will give a motivation for seeking alternatives with regard to some problems that might arise, and, in doing so may help us understand the nature of the left periphery in Korean while looking for the formation SOV word order.

For these reasons, I review the evidence for the complement-head order that Kayne(1994) provides. In addition, the next section gives more plausible evidence than that suggested in

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complementizer C that triggers IP-movement yielding IP-C order.

[44] In Minimalist Program (Chomsky 1992), syntactic constituents are invariably target heads and specifiers which move in functional domain, i.e., left side movement is always required in a syntactic structure, like Kayne's suggestion. The difference in the stance between Chomsky and Kayne lies in the requirement of movement. In Minimalist Program, leftward (overt or covert) movement is triggered by a requirement of licensing abstract morphological features in lexical items, whereas in the context of anti-symmetry framework, it would be unclear what triggers this movement.

[45] I want to also refer to Saito & Fukui's (1998) paper, where they suggest head-parameter should be incorporated within the merge operation for SOV base-order.

Kayne (1994) for the object shift passing the verb to the [SOV] order, as well as, discusses the [S-CP-V] sequence that is produced via IP-movement from the complement position of the matrix verb.

3.2.2. Kayne's (1994) Linear Correspondence Axiom

The basic proposal in Kayne (1994) is that different linear word orders on the surface (say, VO vs. OV) involve different hierarchical structures. This idea, which affects word order and structure, reflects the difference above in a unified way, with consequences for the study of both head-initial and head-final languages (the Head Parameter). This is, for instance, the distinction between English, with V-DO order, and Korean, with DO-V order, as shown in (9) (object appears in **bold** type):

(9) a. [$_{VP}$ buy [$_{NP}$ **bread**]]   (English)

    b. [$_{VP}$ [$_{NP}$ **ppang(-eul)**] sa-(n-da)]]   (Korean)

        bread(-$_{ACC)}$ buy(-$_{PRESENT-DECLARATIVE)}$

There are two VP phrases in (9) with the same elements, ordered superficially in a different way. These two linear orders could be said to deploy two structural sources, those in (10):

(10) a.   V'   b.   V'

      V   NP   NP   V

      buy   bread   ppang   sa-
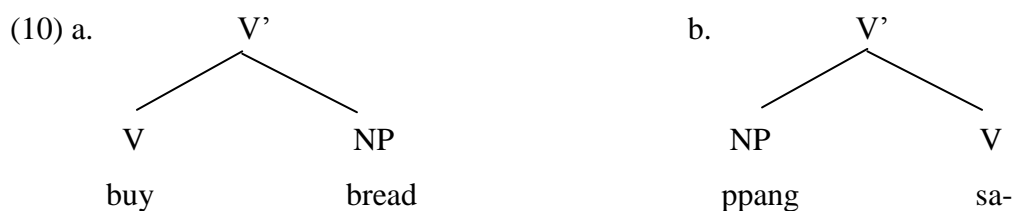
As the two representations in (10a) and (10b) are identical (they both involve mutual c-commands between V and NP, whereby V' immediately dominates NP and V; NP and V are sisters), thus they are exactly the same structures, if we abstract away from the linear ordering of the constituents. The crucial difference is not the structure, but the order of constituents within a structure.

    In this vein, we need to examine the schema that Kayne suggests and his LCA. Using his idea, the linear order to which a given hierarchy is mapped is based on the Linear Correspondence Axiom (LCA). The relevant properties of LCA are as follows:

(11) Linear Correspondence Axiom (LCA)

d(A) is a linear ordering of T

where:

A is the maximum set of all the ordered pairs of non-terminals, d(A) is the representation of the ordered pairs of non-terminals in ordered pairs of terminals (non-terminal → terminal relationship) and T is the maximal set of terminals of A.

[from Kayne 1994: 6; Roca 1997: 23]

The crucial point at which the LCA explains that the asymmetric c-command relations between non- terminals leads to terminal elements in a linear ordering[46]. The definition of c-command that Kayne stipulates is that LCA is mapped to the antisymmetric[47] configuration (i.e., a head does not c-command its specifier).

Accordingly, as in (12a), M and P, which are non-terminals and are in asymmetric c-command relations show their linear order by terminals m and p. Contrary to (12a), the configuration (12b) has symmetric c-command relations between m and p, hence the linear ordering is not determined:

(12) a.   L   b.   L

M   N   M   P

m P m p

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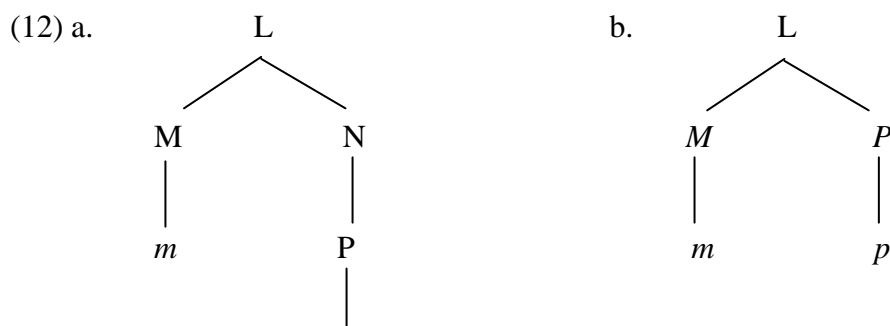
[46] However, if any of these relations is not made, then the linear order is not defined (and as a result the derivation is PF-illegitimate). Yoshida (p.c.) informs me that from the perspective of the well-formedness of X-bar structure, Kayne's idea is LCA that is an axiom that derive particular type of X-bar theory as a theorem. If it is correct, it is predicted that any X-bar structure that does not conform to any of these relations is not a legitimate X-bar theory. Thus, regardless of linear order such a structure is not legitimate, see Robert Frank & K. Vijay-Shanker (2001).

[47] Moro's (2000) dynamic antisymmetry points out that Kayne's original definition does not conform to antisymmetry, but it's asymmetry. Also I want to refer to Guimarãe's (2000) snippets on LCA, and put forwards that Kayne's original notion does not delimit the possible X-bar structures as what Kayne said. There are considerable discussions to recast the LCA within BPS, in which LCA is a PF phenomenon and has a look-ahead problem with this approach (Uriagereka 1999; Nunes & Uriagereka 2000; Guimarãe 2000). A more broader and nice review of Kayne, see Barrie (2006, 2011).

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Details aside, according to Kayne, all languages initially have the same basic order, which is head-complement (that is, head-initial) in accordance with LCA and anti-symmetry framework, as in (12a): this is called the Universal Order is S-H-C, as described in (13):

(13) Universal Base Hypothesis (UBH)[48]

Languages all have S-H-C order. (S = specifier, H = head, C = complement)

If we take a position of UBH (SVO) for the word order in Korean (SOV), SOV order follows from a transformation that implies the movement from head-complement, i.e., configuration plus an object shift operation, as depicted in (14b) and (14c):

(14) a. ZP   b.   c.

Z   XP ⟹   XP   ZP   ⟹   ppang(-eul)   VP

Z   XP   sa-   ppang

(object shift)

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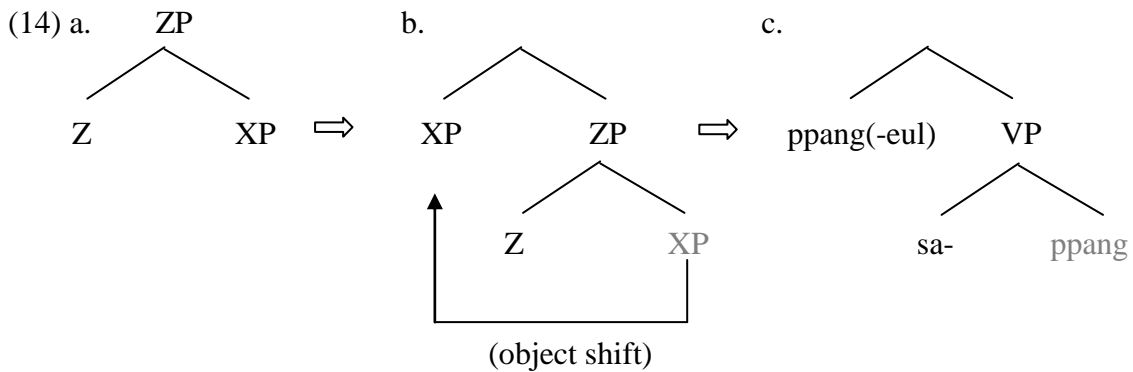
[48] According to some arguments (Ruhlen 1975, Dryer 2005), as below, it is uncertain whether the S-H-C order languages are predominantly observed. The debate between S-H-C and S-C-H regarding UBH still seems to be undetermined.

Table 1 Frequency of Word Order Types among the World's Languages (Ruhlen, 1975)

Order	Frequency	Headedness
SOV	51.5%	S-C-H
SVO	35.6%	S-H-C
VSO	10.5%	--
VOS	2.1%	H-C-S
OSV	0.2%	--
OVS	0%	C-H-S

[from Barrie 2006: 12]

In (14b), the XP is moved to the Spec of the other category, which could be the ZP itself or a higher category[49]. As a consequence, the direct object-movement *ppang* (Eng. "bread") is required for the higher projection bypassing verb *sa-* (Eng. "buy") to yield O-V order under LCA approach in (14); the specifier corresponding to the subject is not discussed here).

According to UBH, tentatively, I reiterate that SOV is derived from SVO by moving complement to the leftward. If that is correct, then one wants to make sure what the pieces of evidence for a leftward-moved complement are the ones he provides. The offered arguments are as follows (Kayne 1994: chapter 5):

(15) Evidence for leftward complement:
   a. (Conj.) *That*-trace effects are found only with initial complementizers. This would follow if a necessary condition for such violations is that the complementizer in question asymmetrically c-command the subject position… (Kayne 1994:53)
   b. German and Dutch in V2 languages require most of their complements to move leftward past V. When the verb is infinitival, the complements must precede it. (Kayne 1994:52)
   c. Final complementizers reflect the leftward movement of IP into Spec CP. (Kayne 1994:53)
   d. The sequence YX is produced by moving YP leftward to the Spec X, subsequent to moving ZP leftward to the specifier of Y. This is based on the pure agglutination since Y and X never fuse.

   …X [$_{YP}$ … Y ZP]… $\rightarrow$ …X [$_{YP}$ZP Y t]… $\rightarrow$ [$_{YP}$ ZP Y t$_{ZP}$] X t$_{YP}$ …(Kayne 1994:52)

In fact, the (15c) is a conjecture by simple observation of phenomena shown in a complementizer-initial language like in (15a), and (15d) is an analytical method to support the (15c). This is virtually a designed mechanism on how the head-initial is changed to head-final, not a piece of evidence.

As for the case of V2 languages in German and Dutch as shown in (15b), these languages do not match with Korean due to the fact that in Dutch the [Complement-Verb] order is

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[49] Subjects, more accurately Specifiers, are merged as adjunctions in a higher position, where asymmetrical c-commands, than the head. Notice that XP does not move necessarily to become adjunction, which can be substituted if the Spec position is available. The important point here is not the operation, but the position. Kayne does not distinguish between Adjunct and Specifier. Thus, it can be an adjunction.

required when the verb is infinitival, but in Korean the verb is no-infinitival form in general sentence. In other words, the position of a complement does not depend on the verb form. In section 3.2.2.2, however, we will discuss the possible base-generated position of CP-complement with reference to a wh-extraction among SOV languages such as Dutch, Basque and Japanese by observation of Ormazabal, Uriagereka & Uribe-Etxebarria (1994).

Therefore, I take the only (15a) as evidence for complement-movement bypassing verbs for SOV order-formation from Kayne (1994).

3.2.2.1 Some predicted problems on the LCA-type approach to Korean

In plain terms the (15a), the asymmetry on the extraction out of a subject/object appears only in complementizer-initial languages as in (16):

(16) a. * Who$_i$ did you say that t_i kissed Harriet?   (English)

   b. Who$_i$ did you say that Harriet kissed t_i ?

[from Sobin 1987: 1]

Based on this phenomenon, it can be inferred that this asymmetry may not appear in the complementizer-final languages. As expected, asymmetry like (16) does not appear in Korean because the extraction is possible regardless of the subject/object:

(17) a. nu(gu)$_i$-ga   John-i   [t_i Bill-eul   manna-ss-da-**go**]   malha-ni? (Korean)

       who$_{-NOM}$ J.$_{-NOM}$ t_i B.$_{-ACC}$ meet$_{-PST-DEC}$-that   say$_{-Q}$

       'lit. Who did John say that met Bill?'

   b. nugu$_i$-leul   John-eun   [Bill-i t_i manna-ss-da-**go**]   malha-ni?

       who$_{-ACC}$ J.$_{-TOP}$ B.$_{-NOM}$ t_i meet$_{-PST-DEC}$-that   say$_{-Q}$

       'Whom did John say that Bill met?'

As seen in (16a), the reason of *that*-trace violation found in the complementizer-initial languages is that the rising of the constituent in the subject position is blocked by the complementizer, since the complementizer is located in the position where it asymmetrically c-commands the subject. On the contrary, in Korean, -*go* (Eng. "that") cannot block the rising of the subject as it does not precede the subject position.

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Despite these facts, there are some SVO languages (it seems that some varieties of English as well) that do not show *that*-trace effects. Moreover, *that*-trace can be evaded just by inserting an adverb between "that" and IP, even though the grammaticality is slightly degraded, as in (18b) (See Sobin 1987 for the more detailed discussion of *that*-trace effect):

(18) a. Who$_i$ did you say Bill kissed t_i? (100% acceptance)   (English)

   b. Who$_i$ did you say that t_i really likes Bill? (71.4% acceptance)

[from Sobin 1987: 59]

In this case, if *that*-trace effect is not seen in some varieties of English, which is an SVO language, the question arises: Can IP be raised and does it mean that is has been moved to the left in varieties of English as well? Another question arises: What really is *that*-trace effect? It is possible that the nature of *that*-trace effect is really the linear order of *that* and the trace, meaning *that*, which precedes trace, is important. If we take the configurational approach, then it is the structure that has the subject trace and overt complementizer, regardless of the order. Kayne clearly takes the latter approach, but the nature of *that*-trace effect itself could be the issue of the linear order of *that* and trace. Curiously, *that*-trace effect is not seen under ellipsis as in (19):

(19) John said that someone kissed Mary, but I don't know who {John said that *trace* kissed Mary}.

[from Yoshida's p.c.]

In (19), the portion within the traces is the elided portion. This shows that another question can be raised on how can we can make sense of this from the configurational approach.

   The second question is also predicted whether the canonical word order of both [O-V] and [CP-V] is a product of the complement-movement. If a more complex sentence such as a relative clause is made by IP-movement, it can induce an island effect in long-distance scrambling. To see this by means of the IP-movement, let us first consider the repeated (15d) below, which explains how XP-movement leftward works:

(15d) …X [$_{YP}$ … Y ZP]… $\rightarrow$ …X [$_{YP}$ZP Y t]… $\rightarrow$ [$_{YP}$ ZP Y t$_{ZP}$] X t$_{YP}$ …

As mentioned before, (15d) shows the process of turning head X-initial into head X-final structure by phrase-movement leftward. Accordingly, it is possible to derive the [S IP-that V] word order like Korean from [S V that IP] like English. (20) shows that IP-C order and then CP-V consequence follows from (15d) based on canonical order UBH, as in (20a) (IP appears in bold type):

(20) a. *[Minsu-ga   malha-ess-da]   [-go]   **[Yuna-ga geu chaeg-eul sa-ss-da]**

        M.-NOM   say-PAST-DEC   -that   Y.-NOM   that book-ACC buy-PAST-DEC

        'Minsu said that Yuna bought that book.'

    b. [Minsu-ga   malha-ess-da]   [[**Yuna-ga geu chaeg-eul sa-ss-da**]$_i$ [-go] t_i]

    c. [Minsu-ga   [[**Yuna-ga geu chaeg-eul sa-ss-da**]$_i$ [-go] t_i]$_j$ malha-ess-da t_j]

(20c) is the general relative clause-order in Korean. In (20b) the word order is also acceptable, even though it has a slightly different meaning from (20c) and is analyzed as a right dislocation, including an intonational break. We will discuss this later. The whole process (20a-20c) shows that the IP *Yuna-ga geu chaeg-eul sa-ss-da* ("Yuna bought that book") undergoes twice the movement yielding IP-C as in (20b), and then [IP-C V] i.e., [CP-V], which becomes an embedded clause as in (20c).

    Note that in the final stage the NP *geu chaeg-eul* ("that book") can be more extracted from the shifted embedded clause with trace, as depicted in (21):

(21) Long-distance scrambling

    geu chaeg-eul [Minsu-ga [[Yuna-ga ~~geu chaeg-eul~~ sassda]$_i$ [-go] t_i] malhaessda]

    that book-ACC   M.-NOM   Y.-NOM   ~~that book-ACC~~   bought-that   said

As is well known, in Korean and Japanese, the extraction of the object is possible even from within a more complex clause:

(22) a. [**geu chaeg-eul$_1$** [$_{CP}$ John-i [[[$_{CP}$ Mary-ga t_1 sassda-go]$_2$ [Bill-i t_2 malhaessda]-go]

        that book-ACC   J-NOM   M-NOM   bought-that   B-NOM   said-that

        saenggaghanda]]

        think   (Korean)

        'John thinks that Bill said that Mary bought the book.'

b. [**sono hon-o$_1$** [$_{CP}$ John-ga [[[$_{CP}$ Mary-ga t$_1$ katta to]$_2$ [Bill-ga t$_2$ itta]]to] omotteiru]]

(Japanese)

Assuming that IP-C order, in turns, CP-V ordering is the product of movement, it is not clear why long-scrambling from within an embedded IP is possible.

Finally, there is another test that the IP-complement/ CP does not move leftward. Consider the following example:

(25) a. John says that Mary is a genius. (English)

b. *(That) Mary is a genius, John says.

This shows that if we assume that CP moves, C cannot be omitted as in (25b). According to this observation, the following generalization can be established:

(26) Generalization 1:

If a CP moves, C cannot be omitted.

Considering this, if Korean CP moves from the right of V to the left of V, we can predict that Korean C should not be omitted, or omission of C should be deviant, as illustrated in (27b):

(27) a. John-NOM says Mary-NOM genius-is C.

b. John-NOM Mary-NOM genius-is -(*C) says.

Contrary to this expectation, however, it is not deviant even if C *-go* is omitted in Korean, rather, it is optional:

(28) John-i Mary-ga ttogttog-hada (-go) malhanda. (Korean)

John$_{-NOM}$ Mary$_{-NOM}$ genius-is ($_{-C}$) says.

This can be lead us to the conclusion that Right CP in Korean does not seem to move leftward. As for the Right CP, we will have more discussion in section 4.2.2.2.

To sum up, it appears that XP-movement leftward is still inconclusive as a piece of evidence to base itself on yielding CP-V order. The next section, however, renders the

analysis that the CP-complement can be base-generated from the right side of a verb and undergoes the left fronting from a cross-linguistic point of view.

3.2.2.1 CP-V order from CP-left movement

Although some problems with the LCA-type approach are discovered for Korean, as we have seen in the previous section, the correlation between wh-extraction and a postverbal CP complement may be suggested as an evidence that a CP complement can be base-generated on the right side of a verb. The following exhibits the difference in the distribution of an NP and a CP-complement among SOV languages such as Basque, Korean and Dutch.

(16) a. Mary-ga [$_{NP}$ geu chaeg-eul] ilgneunda.   [S **NP** V]   (Korean)

      Mary-NOM   that book-ACC read (the fact)

     'Mary reads the book.'

   b. Mary-ga   ilgneunda [$_{NP}$ geu chaeg-eul]   [*S   V   **NP]**

      Mary-NOM   read   that book-ACC

(17) a. Mary-ga John-ege malhaessda [$_{CP}$ Paris-e-ganda-go]   [*S   V   **CP]**

     Mary-NOM John-DAT   said   Paris-to go-COMP (that)

   'Mary told John that she was going to Paris.'

   b. Mary-ga   John-ege [$_{CP}$ Paris-e-ganda-go] malhaessda   [S **CP** V]

     Mary-NOM   John-DAT   Paris-to go-COMP (that)   said

            [adapted from Ormazabal, Uriagereka & Uribe-Etxebarria 1994:7 for Japanese]

As shown in (16) and (17), an NP and a CP-complement can never follow the verb in this language and hence Korean and Japanese always follows the word order *subject-compelement [NPand CP]-verb*. We can not readily conclude, however, that the sentences (b) are the result of the leftward movement of two types of complemets i.e. an NP and a CP. This is because within SOV languages such as German and Basque these two complements exhibit different word order patterns.

(18) a. dat Jan [$_{NP}$ het verhaa] vertelde   [S **NP** V]   (Dutch)

      that Jan   [the story]   told

   b. * dat Jan vertelde [$_{NP}$ het verhaa]   [*S   V   **NP]**

       that Jan told   [the story]

c. dat Jan vertelde [_CP_ dat hij ziek geweest was].   [S V **CP]**

that Jan   said   [that he   ill   been   was]

d. *dat Jan [_CP_ dat hij ziek geweest was] vertelde.   [*S **CP** V]

that Jan   [that he   ill   been   was]   said

[from Kaan 1992: 92, recited in Ormazabal, Uriagereka & Uribe-Etxebarria 1994:7]

(19) a. Mirenek   [_NP_ egia] esan zidan.   [S **NP** V]   (Basque)

Mary-erg   truth-abs   say Aux

'Mary told me the truth.'

b. * Mirenek esan zidan [_NP_ egia]   [*S V **NP]**

Mary-erg   say   Aux   truth-abs

c. Mirenek esan zidan [_CP_ Paris-era joango zela]   [S V **CP]**

Mary-erg   say Aux   [Paris-to go Aux-COMP]

d. Mirenek [_CP_ Paris-era joango zela] esan zidan   [S **CP** V]

Mary-erg   [Paris-to go Aux-COMP]   say Aux

'Mary told me that she was going to Paris'

[from Ormazabal, Uriagereka & Uribe-Etxebarria 1994:8]

According to Ormazabal, Uriagereka & Uribe-Etxebarria's (1994) observation, three languages as illustrated in (18)-(19), the complement-head ordering allows identically when the complement is an NP yielding [S-NP-V], whereas there is differences among them when the complement is a CP. Therefore, under this data, the assumption that an NP is base-generated from the right of a verb and moves to the leftward seems somewhat weak for convenience. In the cas of CP, however, it is possible to predict that the CP would have been generated on the right side of the verb, since Basque and German allow the postverbal CP-complement, although Korean and Japanese does not accept this ordering. The hypothesis that a CP is base-generated on the right side of a verb can be inferred from the test of a wh-extraction in Basque. In Basque, it is shown that the presence of wh-extraction depends on the position of a CP-complement.

(24) a. **Zer**_i_ esan dizute   [entzun dutela [_CP_ **t**_i_   irakuriiko du-ela Peruk]]?   (Basque)

What-abs say Aux   [hear Aux   [_CP_   read Aux-Comp Peru-Erg]]

'What did they tell you that they heard that Peter will read?

b. *__Zer__$_j$ esan dizute [[$_{CP}$ __t__$_j$ irakuriiko du-ela Peruk]$_i$ entzun dutela t_i]]?

What-abs say Aux [[$_{CP}$ read Aux-Comp Peru-Erg] hear Aux-Comp

[from Ormazabal, Uriagereka & Uribe-Etxebarria 1994:10]

In this example, the CP has already moved to the left position of the embedded verb *entzun* (Eng. "to hear") and the extraction of the *Wh*-element *zer* (Eng. "What") is banned from the inside CP. Consequently, the fact that *wh*-word in Basque can not be extracted from the preverbal position CP-complement, but not from the postverbal position CP, can predict that the fronted CP-complement generates a kind of island constraints effects. Put differently, the fact that the wh-island phenomenon[50] appears at the preverbal position CP is that this CP can be expected to undergo the left shift movement.

(26)
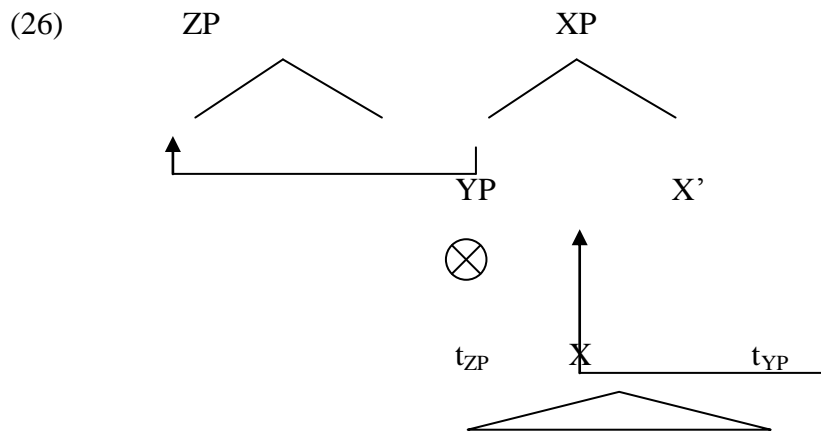
[from Ormazabal, Uriageraka & Uribe-Etxebarria 1994:11]

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[50] In the literature, the subextraction of a wh-phrase from an embedded CP is subject to the *wh*-island constraint as indicated in (23) and the examples (24) are the cases that corresponds to the wh-island constraint: .

(23) Wh-island Constraint

   A WH phrase cannot be moved out of a [+wh] CP

(24) a. *Which movie$_i$ did John wonder [$_{CP}$ who$_j$ t$_j$ wanted to see <which movie$_i$>]?
   b. *Which movie$_i$ did John ask [$_{CP}$ if <which movie$_i$> was playing locally]?

Of course, as they have suggested, in the case of Basque, it can be hypothesized that a moved CP can be regarded as a sorf of island, the C complementizer does not bear a [+wh] feature though.

Furthermore, also in Dutch, a wh-word can be extracted from the postverbal position of CP complements.

(20) a. dat Jan vertelde [CP dat hij een slang gezien had]   (Dutch)

　　　　that Jan told 　　 that he a snake seen had

　　b. Wat vertelde Jan [CP dat hij *t* gezien had]?

　　　　What told Jan 　　 that he 　 see had

　　　　　[from Kaan 1992:93, recited in Ormazabal, Uriagereka & Uribe-Etxebarria 1994:10]

The fact that *wh*-word was extracted from the CP-complement on the right side of the verb ensures the systematic postverbal position for the CP-complement.

To give an interim summary, since Basque allows both the preverbal position CP and the postverbal position CP, we can infer the relation between the position of the CP complement and the wh-extraction. If Basque becomes a standard, it is not possible to extract the wh-word in Korean.

Dutch	Basque	Korean/Japanese
wh　V　CP　(O)	wh　V　CP　(O)	V　CP　(word order X)
CP　V (word order X)	wh　CP$_i$　V　t$_i$ (X)	wh　CP$_i$　V　t$_i$ (X?)

As is widely known, Korean (and Japanese) is wh-in-situ language and thus, the wh-extraction should not be possible in this language. In fact, however, many studies have been suggested that wh-extraction in both languages is possible in this position. This can be classified as wh-scrambling. (Nishigaouchi 1996, 1992, Watanabe 1992, Takahashi 1993, Saito 1994, Miyagawa 2005, Lee 1993, Suh 1989, Chung 1996, Yoon 1999, a.o.; *Contra* Deguchi & Kitagawa 2002).

(27) Nani-o$_i$ John-wa [Mary-ga t$_i$ tabeta ka] siritagatteiru no?   (Japanese)

　　what-ACC J-TOP M-NOM ate Q wants to know Q

'What does John want to know whether Mary ate?'

[from Takahashi 1993:657]

(28) ?Nani- o$_i$ John-ga [$_{wh-isl}$ t$_i$ [$_{TP}$ dare-ga ti katta ka]] siritagatteiru ndai?

    what-ACC J-NOM   who-NOM bought Q want-to-know Q

    'What does John want to know who bought?'

[from Miyagawa 2005:196]

As argued by Takahashi (1993) and Miyagawa (2005), long distance scramling in wh-phrases does not show wh-island effects. I provide the following the same sentence in Korean and it is grammatical as Japanese :

(28) Nugu-leul$_i$ neo-neun   [Trump-ga   t$_i$ mana-neunji]   al-go sip-ni?   (Korean)

    who-ACC   you-TOP   T-NOM   meet-Q   want-C know-Q

    'Who do you want to know whether Trump meet [him]?'

Our goal is to see if a CP-complement has the possibility for being base-generated on the right side of the verb. According to this reasoning, however, it is difficult to see that the CP-complement undergoes the movement because wh-words can be extracted from the preverbal position CP (i.e., a wh-island effect does not show).

Based on these facts, it could be concluded that a Korean relative clause is derived by the CP-complement already preceded the verb with a complementizer morpheme such as *-go* (Eng. *that*) or *-neunji* (Eng. *whether/ if*) bearing a [+wh] feature as a mono-clause. In this work, however, I assume that the CP-complement is base-generated as a bi-clause on the right side of the verb and undergoes left movement by final complementizer morpheme as argued by Kayne (1994). In order to support this assumption, I present the following sentences in which show wh-island effects. The fronted wh-phrase under wh-island constraints environment has, in general, ambiguous meanings.

(28) Nugu-leul$_i$ neo-neun [Trump-ga *t$_i$* bangmunha-neunji] al-go sip-ni?   (Korean)

    who-ACC   you-TOP   T-NOM   visit-Q   want-C know-Q

    (i) Who do you want to know whether Trump visit [him]?' (with a wh-Q intontation)

    (ii) Do you want to know who Trump visit?' (with a Y/N-Q intonation)

(29) ¿A quién quieres saber si visita Trump?   (Spanish)

    (i) ¿A quién quieres saber si visita Trump?   (matrix scope: wh-question)

       (=¿Quién es la persona que Trump visita?)

       A: Trump visita Kim Jeong-Eun

    (ii) Quieres saber Trump visita ¿a quién ?   (embedded scope: Y/N question)

       A:Sí, quiero saber

The interrogative sentence in (28ii), for example, means that 'Do you want to know whether Trump meet?'. It should be 'Yes, I want to know' answer to this question, whereas the proper answer to the (28i) should be 'Trump meets Kim Jeong-Eun'. As for this type of sentence, I point out that there are considerable controversial whether *wh*-clause can take a matrix scope (wide-scope) or embedded scope (narrow scope), i.e., on the existence of island effects. The relevant scope reading is depending on the position of question markers as seen in (29):

(29) a. [$_{matrix\ CP}$ Who$_i$ S [$_{embedded\ CP}$ t$_i$ <u>-neunji</u> -ni]]?   (matrix scope: wh-question)

   b. [$_{matrix\ CP}$ Who$_i$ S [$_{embedded\ CP}$ t$_i$ <u>-neunji</u> -ni]]? (embedded scope: Y/N question)

However, I will show the result of the experiment on the acceptability judgment task in favor of wh-island effects in this language. For comparison, two cases are provided; the general CP as *Non-island* in which the complementizer does not bear [-wh] feature and the CP with [+wh] as an *Island*.

(26)) a. Non-island / Non-wh-extraction

    Neo-neun [Yeji-ga **nugu-leul** manna-ss-da-**go**] deul-eoss-ni?

    You-TOP   [Y-NOM who-ACC meet-PST-D.-that] hear-PST-Q?

    (i) Who did you hear whether Yeji met? (with a wh-Q intontation/wide)

    (ii) Did you hear who Yeji met? (with a Y/N-Q intonation/narrow)

   b. Non-island/ wh-extraction

    Nugu-leul neo-neun [Yeji-ga t manna-ss-da-**go**] deul-eoss-ni?

who-ACC   You-TOP [Y-NOM   meet-PST-D.-that] hear-PST-Q?

(i) Who did you hear whether Yeji met? (with a wh-Q intontation/wide)

(ii) Did you hear who Yeji met? (with a Y/N-Q intonation/narrow)

(27) a. Island/ Non-wh-extraction

Neo-neun [Yeji-ga   **nugu-leul**   manna-ss-**neunji**] deul-eoss-<u>ni</u>?

You-TOP   [Y-NOM who-ACC meet-PST-whether] hear-PST-Q?

(i) ??Who did you hear whether Yeji met? (with a wh-Q intontation/wide)

(ii) Did you hear who Yeji met? (with a Y/N-Q intonation/narrow)

b. Island/ wh-extraction

<u>Nugu-leul</u>   neo-neun   [Yeji-ga   t   manna-ss-**neunji**] deul-eoss-<u>ni</u>?

who-ACC   You-TOP   Y-NOM   meet-PST-whether] hear-PST-Q?

(i) Who did you hear whether Yeji met? (with a wh-Q intontation/wide)

(ii) ??Did you hear who Yeji met? (with a Y/N-Q intonation/narrow)

[from Cho J. 2017:331(8)]

The data (26) and (27) show that the visible wh-movement is observed in either the non-island, which is maker by *–go* (Eng. that) or the island [+wh] which is marked by *–neunji* (Eng. whether). In other words, even though Korean is wh-in-situ language, this language allows wh-scrambling, violating wh-island constraints. I would like to, however, provide some sentences that not violate wh-island constraints. (27) is the case that wh-island effect appears not in overt syntax but covert syntax.

(29) a. [$_{\text{matrix CP}}$ You [$_{\text{embedded CP}}$ S   who   <u>-neunji</u>]   -ni]]? (embedded scope:Y/N question)
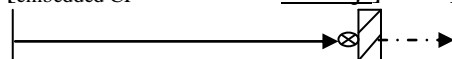
Blocking the wide scope reading in LF

b. [$_{\text{matrix CP}}$ Who$_i$ S [$_{\text{embedded CP}}$ t$_i$ <u>-neunji</u>]   -ni]]?   (matrix scope: wh-question)

Bloking the narrow scope reading in LF

According to the Cho J. (2017)'s experiment for acceptability judgment task[51] on the basis of the experiments of Kim and Goodall (2014), there exists wh-LF-island (*contra* Yoon's (2011) experiment)[52]. The survey shows that a majority of Korean native speakers prefer the matrix scope reading in wh-island sentences when a wh-word is scrambled. It means that the existential quantifier interpretation such as 'someone' should be in-situ and thus, a wh-LF-island effect occurs in Cho J.'s (2017) terminology. Moreover, Lee Y.'s (2018) experiments demonstrate that Korean has island phenomena. Thus, it may be suggested that a CP-complement would have undergone the left movement from the right of the verb since the wh(-LF)-island constraint appears in Korean and there are non-trivial cases that show wh-island effects.

As another ground for the base-position of a CP-complement, the parasitic gap test may demonstrate that the CP-complement is not base-generated precedes the verb as an embedded clause, but can be born separately from the out of the matrix verb clause.

3.2.2.1.1. Parasitic gap construction

A parasitic gap is a construction (henceforth PGC) in which a type of gap appears by virtue of another gap, which refers to as the real gap in the same sentence (Engdal 1983; Chomsky 1986; Culicover 2001). As the word itself (literally speaking) a gap is parasitic in the real gap. In syntax, it is generally noted that a gap results from the movement of an element and allows another gap within an island such as PPs that is in the same sentence. And this has been adopted as a diagnosis supporting the movement hypothesis of an element.

Although a PGC is a diagnosis that is presented as a basis for the movement of an element (such as topic or scrambled element), I would like to capitalize on this test to make the assumption that Korean relative clause was separately generated with matrix clause and

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[51] The results whether the extracted wh (or so-called wh-long distance scrambling) in (28) is interpreted as Y/N question or wh-question is different depending on the sruvey. In Yoon's (2010, 2013) experiment, for example, the majority of subjects count as a Y/N question, but in Cho's (2017) survey, the percentage of subjects who answered with wh-question was higher. I will not discuss it in detail but only focus on that there exists wh-island effects in Korean, i.e., the matrix Q-morpheme –*ni*'s extension at LF level.

[52] In Yoon's (2010, 2013) experiment, for example, the majority of subjects count as a Y/N question, but in Cho's (2017) survey, the percentage of subjects who answered with wh-question was higher. I will not discuss it in detail since its judgement is inconclusive. I only focus on the possibility of wh-island effect for this section.

embedded clause. This suggests that a CP in CP-V ordering, which is canonical word order in Korean, can be base-generated out of the matrix verb domain, rather than is born preceding the verb. Thus, this is in line with Kayne's LCA-type approach.

What I am attempting to argue in this section is that a CP clause (whether or not it plays a role as a compliment or a subject) is not originally derived from a mono-clause preceded by a matrix verb, but is base-generated out of the matrix verb as a distinct bi-clause. This fact may suggest that the embedded CP_2 in Korean might be have been base-generated in the different domains out of the matrix verb phrase, i.e. CP_1.

(29) Korean relative clause:

$[_{CP1}$ SOV] $[_{CP2}$ SOV]

a. $[_{CP1}$ S $[_{CP2}$ SOV]-that V]   (Complement clause type)
b. $[_{CP1}$ $[_{CP2}$ SOV]-who O V]   (Subject clause type)

It has been observed that PGC is licensed in two types of construction with respect to the clausal category, although there are some controversial as to which of the two types of constructions allows PGC. (30) shows that the antecedent *which articles* license both the real gap and the parasitic gap in adjunct clause and subject clause type constructions.

(30) a. Which   articles$_i$ did   John   file t_i without reading pg_i?

[Adjunct clause type]

b. Which   boy$_i$ did   Mary's   talking   to pg_i bother t_i most?

[Subject clause type]

In the previous literature, it has been suggested that PGC exists in both clausal types in Korean (Culicover 2017 for the cross-linguistic observation of PGC; Lee Y. 1998, 2011; Lee E. 2007), even though there is a controversial that different properties hold for Korean in two types constructions (Lee Y. 1998, 2011, adjunct clause is only Korean PGC: Lee Y. 2010; Lee E. 2007):

(31) a. eoneu   nara-leul$_i$ Kim-i   [eoje   Trump-ga t_i dochagha-gi   jeone] pg_i

which   country-ACC   Kim-NOM yesterday T.-NOM arrive-NOML before

bangmunha-ess-ni?

visit- PST-Q?

'Which country*i* did Kim visit *ti*　before Trump [*pgi*] arrived yesterday?

<div align="right">[Adjunct clause type]</div>

b. eoneu　nara-leul*i*　[eoje　*pgi*　bangmunha-n] daetonglyeong-i　*ti*　gajang

which　country-ACC　yesterday visit-COM　president-NOM　　most

saeng-gagha-ni?

consider-Q

'Which country*i* did the president who visited [*pgi*] yesterday consider　*ti*　most?

<div align="right">[Subject clause type]</div>

<div align="right">[adopted from Park Y. 2018: 44 (2)]</div>

Despite the fact that a parasitic gap appears in both clausal type constructions in Korean on the basis of the Culicover's (2017) account, Park S. (2018) claims that only subject clause type is a real parasitic gap in Korean. The adjunct clause type contains a null pronoun within the embedded clause rather than a parasitic gap. Thus, two clausal type constructions can be reanalyzed as follows:

(31) a. eoneu　nara-leul*i*　　Kim-i　[eoje　Trump-ga ***proi*** dochagha-gi　jeone]　　*pgi*

which　country-ACC　Kim-NOM yesterday T.-NOM arrive-NOML before

bangmunha-ess-ni?

visit- PST-Q?

'Which country*i* did Kim visit *ti*　before Trump [*pgi*] arrived yesterday?

<div align="right">[Adjunct clause type]</div>

b. eoneu　nara-leul*i*　[eoje　*pgi*　bangmunha-n] daetonglyeong-i　*ti*　gajang

which　country-ACC　yesterday visit-COM　president-NOM　　most

saeng-gagha-ni?

consider-Q

'Which country*i* did the president who visited [*pgi*] yesterday consider　*ti*　most ?

<div align="right">[Subject clause type]</div>

According to this result, the Park Y. (2018) reach the conclusion that Korean relative clause is a bi-clause phrase of TP and CP, while an adjunct clause in Korean is formed as a mono-clause phrase. In order for this consequence, the key clue she provides hinges on whether the clause can be tensed or not.

(31) a. eoneu nara-leul$_i$ Kim-i [eoje Trump-ga ***ei*** <u>dochagha</u>-gi jeone] t_i

     which country-ACC   Kim-NOM yesterday T.-NOM arrive-NOML before

     bangmunha-ess-ni?

     visit- PST-Q?

     'Which country did Kim visit before Trump arrived yesterday?

[Adjunct clause type]

   b. *eoneu nara-leul$_i$ Kim-i [eoje Trump-ga ***e$_i$*** <u>dochagha-ess-gi</u> jeone]   *pg$_i$*

     which country-ACC   Kim-NOM yesterday T.-NOM arrive-PST-NOML before

     bangmunha-ess-ni?

     visit- PST-Q?

     'Which country$_i$ did Kim visit before Trump arrived yesterday?

[Adjunct clause type:Tensed]

(32) a. eoneu nara-leul$_i$ [eoje   *e$_i$*   <u>bangmunha-Ø -n</u>] daetonglyeong-i t_i gajang

     which country-ACC yesterday visit-COM   president-NOM   most

     saeng-gagha-ni?

     consider-Q

     'Which country did the president who visited yesterday consider most?

[Subject clause type: Tensed (present)]

   b. eoneu nara-leul$_i$ [eoje   *e$_i$*   <u>bangmunha-ess-deon</u>] daetonglyeong-i t_i gajang

     which country-ACC yesterday   visit-PST-COM   president-NOM   most

     saeng-gagha-ni?

     consider-Q

     'Which country did the president who visited yesterday consider most?

[Subject clause type:Tensed (past)]

As illustrated in (31b), an adjunct clause does not allow a tensed verb phrase, rather it is nominalized by nominalizer -*gi*, whereas a subject clause in (32b), in which a verb phrase can

be tensed, and hence the sentence should be separated as a bi-clausal phrase of TP and CP. In this section, I will not discuss in detail in terms of the correlation between scrambling and two types of clauses. I just point out that it can be inferred that the Korean relative clause is consists of the two separately base-generated clauses, which is revealed in process of reasoning that a subject clause is the real PGC. In terms of the correlation between scrambling, I will discuss it in the next chapter.

3.2.2.1.2. Binding Condition

Another promising evidence of a CP-complement as a being base-generated out of the matrix verb clause and left moved is found in the following co-reference reading construction:

(36) Yuna-ga **geu$_i$-leul**   iyagi hagonhaesseo, [**John$_i$-i** cham joheun salam-ieossda-go].

    Y.-NOM he-ACC (**him**)   tell used to.   **J.-NOM**   very good   person-was-that

    'Yuna used to talk about him that John was very good person.'

(36) is grammatical in Korean. Given that the right adjoining or the rightward movement of an element or phrase are banned under LCA-type approach, there are two possibilities of the position of the CP-complement; the CP containing the R-expression "John" should be lower than the other CP containing the pronoun "him" or two CPs have syntactically distinct domain.

(37) a.   b.

    CP$_{1\ (him)}$

            CP$_{2\ (John)}$ [CP$_{1\ (him)}$]   [CP$_{2\ (John)}$]
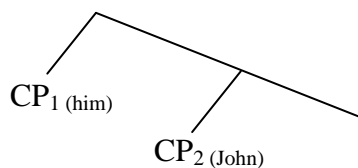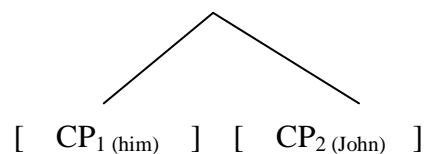
(37a) is straightforwardly ruled out by Binding Principle C, which the R-expression "John" is c-commanded by the pronoun "him":
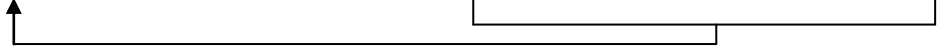
(38) Binding Principle C

    R-expressions must be free

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By and large, (37a) construction is analyzed as right node raising whereby the pronoun is c-commanded by R-expression which is higher than the CP$_1$ to avoid violating Binding Principle C. I believe that (36) has already undergone the right-dislocation that we will discuss in detail in section (4.2.2.4) since it has pause and complementizer *-go*. Therefore, the following two sentences are considered to be derived in different ways:

(39) a. Yuna-ga **geu$_i$-leul**   iyagi hagonhaesseo, [**John$_i$-i** cham joheun salam-ieossda-go].

   Y.-NOM he-ACC (**him**)   tell used to.   **J.**-NOM   very good   person-was-that

   'Yuna used to talk about him that John was very good person.'

   b. [Yuna-ga **geu$_i$-leul**   iyagi hagonhaesseo] [**John$_i$-i** cham joheun salam-ieossda]

As noted earlier, in our analysis, (39a) results from right node raising, but in (39b), two sentences are base-generated separately and any syntactic operation is not applied to be a relative clause since it does not involve a pause and a final complementizer such as (39a). Thus, another possibility can be proposed as in (37b), in which two CPs are separately base-generated in a distinct syntactic domain containing the connectivity between pronoun and the R-expression. I assume that (39b) may be produced as in (37b), in which two CPs are born in distinct domains but with connectivity. Later, the CP$_2$ is inserted into the left side of the CP1 to make the R-expression *John* c-command the pronoun *him* by virtue of the complementizer *-go* as illustrated in (40b).

(40) a. [Yuna-ga   **geu$_i$-leul**   iyagi hagonhaesseo] [**John$_i$-i** cham joheun salam-ieossda]

   b. [Yuna-ga   [**John$_i$-i**   ]-go **geu$_i$-leul**   V]]

We have delved into, so far, the possibilities and grounds for the postverbal position CP-complement or base-generating outside of the matrix verb phrase. The next section suggests a possible alternative to long-distance scrambling structure that was problematic under the LCA-type approach.

3.2.2.1.3. Uniformity Condition on Chains for LDS
Under the LCA-type approach, as for the case of Long-Distance Scrambling, Uniformity Condition on Chains (Chomsky & Lasnik 1993:4.1) may be applied to this structure.

(30) Uniformity Condition on Chains (Chomsky & Lasnik 1993:4.1)

  (i) Chain C: $[\alpha_1 \ldots \alpha_n]$ is a legitimate LF object only if C is uniform [or it is an operator variable construction].

 (ii) The Chain C is uniform with respect to a property P if each αi has property P or each α_i has non-P.

Let us consider the following examples to approach to UCC.

(9) a. ??What$_i$ do [$_{IP}$ t''$_i$ [$_{IP}$ you wonder [$_{CP1}$ whether [$_{IP}$ t'$_i$ [$_{IP}$ Mary fixed   t$_i$]]]]]]

    b. *How$_i$ do [$_{IP}$ t''$_i$ [$_{IP}$ you wonder [$_{CP1}$ whether [$_{IP}$ t'$_i$ [$_{IP}$ Mary fixed the car   t$_i$]]]]]]?

To put it in a nutshell, the argument-'*What*' extraction from the A-position (9a) forms a non-uniform chain, creating an (A'-A'-A) chain. The non-uniform chain is allowed to delete intermediate traces to become an operator-variable chain which is a legitimate object at LF. However, this derivation has a weak Subjacency violation (means that it is not completely ungrammatical) since it violates Minimal Link Condition (i.e. cyclic movement). On the other hand, the adjunct-wh '*How*' chain of (9b) is uniform[53], the derivation crashes since the intermediated traces of this chain-so-called offending intermediate traces- must be deleted LF[54] but it remains there, in turn, an illegitimate object will be crashed at LF. The structure can not be saved in this way. Thus, under LCA approach, it seems that long-distance scrambling can be explained for its legitimacy under the UCC.

(10) a. Bill-i **[Totoro-ga *dotori-leul* May-ege [jueoss]-neunji]**   muleossda.

        B.-NOM   *T.-NOM*   *acron-ACC*   *M.-DAT*   *gave-whether*   *asked.*

      'Bill asked whether Totoro gave the acorn to May.'

---

[53] Unifromity Condition on Chains (Chomsky & Lasnik 1993:4.1)

  (i) The Chain C: $[\alpha_1 \ldots \alpha_n]$ is a legitimate LF object only if C is uniform [or it is an operator variable construction].

 (ii) The Chain C is uniform with respect to a property P if each αi has property P or each α_i has non-P.

[54] Under minimalist program, every obejct is required to be legitimate for proper interpretation by grammar external systems such as LF and PF

b. [CP *dotori-leul*ᵢ [CP Totoro-ga tᵢ May-ege [jueoss]-neunji]ⱼ [v*P Bill-i [VP [CP]ⱼ muleossda [CP]ⱼ]].

c. [CP **acorn**ᵢ [CP *tᵢ*]ⱼ] [v*P S [VP [CP]ⱼ] V [CP]ⱼ]].

A'-movement   A'-movement   A-movement

As shown in (10c), the CP-complement bearing [+wh] by the morpheme *–neunji* is base-generated on the right side of the verb and the object "*acorn*" moves out of the CP, which forms, in turn, a legitimate scrambled structure. Put differently on this chain condition, the intermediate trace in the second step can be ignored since it takes place at LF and thus the final chain affects only one link of the A-chain. Thus, in the light of this chain condition, the ungrammatical sentence can predict the following Spanish data (Torrego 1986):

(11) a. *Esta es la autora **de la que varias traducciones** han ganado premios internacionales.

'This is the author by whom several translations have won international awards.'

b. Esta es la autora **de la que no sabes <u>qué traducciones</u>** han ganado premios internacionales.

'This is the author by whom (you) don't know what translations have won international awards.'

[from Ormazabal, Uriagereka & Uribe-Etxebarria 1994: 14]

According to Ormazabal, Uriagereka & Uribe-Etxebarria (1994), in (11a), the *qué traducciones* ("what translations") has already been moved to A'-position to intermediate SpecCP, whereas *varias traducciones* (several translations) has been moved to A-position as in (11b). Thus, in (11b), the extraction of the *de la que* ("by whom") can take place from the A' in the second step, and thus the sentence is improved. In other words, the second chain affects only one link of the A-chain as I mentioned before.

To sum up, we have concentrated on finding evidence for the CP-complement base-generated from the right side of a verb and undergo left fronting. Some problems were straightforwardly predicted such as that-trace effects, long-distance scrambling and lack of wh-island constraints, but in this dissertation I first showed the possibilities that Korean CP-complement might be base-generated on the postverbal position by providing empirical evidence such as existence of wh-island effects, Parasitic Gap Construction test resulting in

bi-clause in Korean relative clause and Binding Condition test. I attempted in various ways to find plausible grounds for the CP-complement position, but it still seems to need more robust evidence for [V-CP] ordering as a universal order.

3.2.2.3. NP-V order (Predicate cleft constructions and NP ellipsis test)

In this section, we focus on the NP-complement in the light of ordering [NP-V] from the [V-NP]. As in the previous section, supporting the LCA-type approach, I present here *Subjacency* exhibits between verbs and NP-complement cross-linguistically such as Dutch and Korean.

It is observed that in Dutch, an object seems to undergo left movement to yield O-V order from V-O. According to Zwart's (1992) account, in the literature, VP in Dutch has been dealt rightward movement to a functional head, having head-final properties in syntax. Note that the noun phrasal object has to precede the verb, but the clausal object has to follow the verb, as illustrated in (29):

(29) a. ..dat Jan wil   [dat hij zijn rijbewjs halt]   (Dutch)
    that John wants that he his drivers license gets

  b.* ..dat Jan [dat hij zijn rijbewjs halt]   wil
     that John [that he his drivers license gets]   wants

                             [from Zwart 1992: 4]

I refer to two complements as VP-complement such as "*dirvers license*" and IP/CP-complement such as *that-phrase* (lit. in Eng: *that he his drivers linces gets*), respectively. As seen in the data, phrases in Dutch can be summed up as follows; VP has head-final properties, whereas IP has head-initial properties. As for this difference between NP and CP-complement, we already have discussed in section (4.2.2.2). Despite the fact that Dutch is analyzed as a mixed branching language, Zwart (1992) supports that this language is possible to be regarded as head-initial languages by testing the adjacency effect between object and verb in the same line with our direction.

Zwart(1992) points out that when the complement is to the right of the verb/head, head-complement adjacency requirement is observed, and thus *V Adv O. On the other hand, this adjacency requirement is not observed when the complement is to the left of the verb/head, and thus O Adv V, as seen in Dutch and Korean:

(30) a. …dat   Jan   zijn rijbewijs   **nooit**   halt   (Dutch)

       that   John   his drivers license   never   gets

  b. Totoro-ga   dotori-leul   **jongjong**   gajyeoganda   (Korean)

      Totoro-NOM   acorn-ACC   sometimes   take

  'Totoro sometimes takes the acorn.'

In (30), the objects can be easily split up by the adverb (in bold type). If it is assumed that the object is generated directly preceding the verb as its sister, it can be expected that the object and the verb are adjacent. These tests lead to the second generalization, as illustrated in (31):

(31) Generalization 2:

    The direct object is merged directly to the verb, then V-DO adjacency holds.

If Korean DO is base-generated to the left of a verb, i.e., if Korean DP is directly merged to the Verb to the left, then DO-V adjacency should hold. Nevertheless, DO Adv V is possible, as seen in (30b) like VP in Dutch.

  This test leads us to the conclusion that the basic position of the object in VP of Dutch and Korean is to the right of the verb. Interestingly, the lack of adjacency effect is generally true for SOV languages, including Japanese. In these languages, O-V adjacency is never required, hence, O Adv V is always possible. On the other hand, in SVO languages, almost universally V-O adjacency seems to be required, as in English[55]. This difference between SOV and SVO

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[55] In the case of Spanish, adverbs can be inserted between verbs and objects, as in (ib), even though its canonical word order is SVO, like (ia). I see this is because of verb raising, not object fronting :

(i) a. Juan compró el periódico.   SVO   (Spanish)

    Juan bought the newspaper

  b. Juan compró$_i$ ayer t_i el periódico   SV Adv O

    Juan bought yesterday the newspaper

Spanish has SOV order, if the object is replaced by clitic pronoun, as a matter of course:

(ii) Juan   lo   compró   SOV   (Spanish)

  Juan   CL-3.SG   bought

languages readily follows from Kayne's approach. As a result, the adjacency effect of verb-object provides convincing evidence for the complement/XP-movement leftward.

Another ground I can suggest is *Predicate cleft construction* as a usual term where is observed loose adjacency between verbs and objects. The term *Predicate cleft construction* is also referred to as *Predicate repetition construction* (Kim G. 2019) or *Echoed verb construction* (Choi K. 2002) in the case of Korean. In Korean, it is formed as nominalized predicates which end with the nominalizer *-ki* in the initial position of a sentence as follows:

(30) a. *meog*-ki-neun, Mary-ga   Pizza-leul   *meog*-eoss-da.   (Korean)

         eat-NOML-TOP/CF   *M.-NOM*   *Pizza-ACC*   *eat-PST-D.*

    'As for eating, Mary ate the Pizza.'

    b. *Pizza-leul meog*-ki-neun, Mary-ga   *meog*-eoss-da.

  'Juan bought it'.

This shows that Spanish requires less strict V-O adjacency. Put differently, Spanish is less configurational than English. Ángel Gallego (p.c.) informs me that "adjacency" is typically defined as a linear (phonologic) issue. Moreover, an anonymous reviewer points out that there is a case that some adverbs cannot be located between verb and object depending on the types of adverbs: speech-act adverbs; sentential adverbs; sentenctial adverbs; subject oriental adverbs; and manner adverbs. However, considering the fact that French (as Pollock shows) and Spanish are V-raising languages, then V can move past the adverb that is attached to VP as an adjunct. Thus, in the light of the V-movement in Romance languages, it gives us an impression that V-O adjacency does not hold in Spanish.

As for the clitics as in (ii), I assume that clitics are linearized at the phonologic component. In this case, even though Spanish can hold SOV containing the clitic pronoun "lo", O-V adjacency is strictly required contrary to Korean:

(iii) a. *Juan   lo   ayer   compró   SO$_{clitic}$ (*Adv) V   (Spanish)

    b. *Te   mucho   quiero

         CL-you   much   love-I

(iv) a. Juan-i   geugeos-eul   eoje   sassda.   SO$_{pronoun}$ (Adv) V   (Korean)

       J.-NOM   it-ACC   yesterday   bought

    b. (Na-neun) neo-leul   mani   saranghae.

       I-TOP   you-ACC   much   love

Thus, I believe that the less configurational structure in Spanish is different from that in Korean and Dutch due to the different typological properties. Specifically, I tentatively put forward that the difference between "D" in DP for Spanish and "N" in NP for Korean. I will leave open this issue for further investigations.

Pizza-ACC	*eat-NOML-TOP/CF,*	*M.-NOM*	*eat-PST-D.*

   'As for eating Pizza, Mary ate [it].'

The verb *-meog* (Eng. *eat*) is repeated by the nominalizer *-ki* and the topic marker *–neun* (or contrastive focus marker) at the left periphery. In general, this sentence is a topicalized sentence as an information structure, but in this section, we focus on whether the object and verb can be broken up in the repeated phrase. In fact, this phenomenon also displays in Spanish as in Korean.

(31) a. *Conducir*, Juan *condujo* un camión.   (Spanish)

   Drive,   Juan drove-3.sg. a truck

   b. *Leer*, Juan ha *leído* el libro.

   Read,   Juan have-3.sg. read the book

   c. *Perder*, Juan *perdió* la cartera.

   Lose,   Juan lost-3.sg.   the wallet

   d. *Leer el libro*, Juan *lo*   ha *leído*

   Read   the book, Juan   it-clitic   have-3.sg. read

                                        [from Vicente 2007: 62, 63]

If it is shown that Korean, which is SOV language, displays the adjacency between verb and object is less than that of Spanish, which is SVO language, our prediction will be on the right track. As illustrated in (31a) and (31d), the adjacency of the verb and the object in Spanish can be easily split as in Korean. However, as shown in (30b) and (31d), (30b) in Korean allows the sentence with the empty object, whereas (31d) in Spanish requires the clitic object in canonical position.

   Furthermore, the left fronted sentence can strand the object in the canonical position, whereas in Spanish it does not allow.

(32) a. Mary-ga ∅ meog-ki-neun,   <u>*Pizza-leul*</u>   meog-eoss-da.   (Korean)

   M.-NOM   eat-NOML-TOP   Pizza-ACC   eat-PST-D.

   'As for Mary eating, [she] ate the Pizza.'

   b. *Juan *Leer*,   ha *leído*   <u>*el libro*</u>.   (Spanish)

   Juan Read   have-3.sg. read   the book

'As for Juan reading, [he] read the book.'

(33) a. *Pizza-leul,*   Mary-ga   meog-ki-neun   meog-eoss-da.   (Korean)

      Pizza-ACC   *M.-NOM*   *eat-NOML-TOP*   *eat-PST-D.*

    'As for Pizza, Mary ate [it] indeed.'

  b. * *El libro,* Juan *Leer* ha *leído.*   (Spanish)

      the book,   *Juan*   *read*   *have read*

Finally, what I can put forward as evidence for the assumption that Korean has less Subjacency between verbs and objects is NP-ellipsis phenomenon, which especially exhibits in Korean and Japanese.

(34) a. John-wa [CP [NP zibun-no teian]-ga   saiyoosareru-to] omotteiru.   (Japanese)

      John-TOP   *self-GEN proposal-NOM*   *be.adopted-COMP* *think*

    'John thinks that his proposal will be adopted.'

  b. Mary-mo [CP _____ saiyoosareru-to] omotteiru.

      Mary-also   *be.adopted-COMP* *think*

    'Mary also thinks that her proposal will be adopted.'

(35) a. John-eun [CP [NP jagi-ui   jean]-i   chaetaegdoel geos-ilago]saeng-gaghanda. (Korean)

      John-TOP   *self-GEN*   *proposal-NOM* *will.be.adopted-COMP*   *think*

    'John thinks that her proposal will be adopted.'

  b. Mary-do [CP _____ chaetaegdoel geos-ilago] saeng-gaghanda.

      Mary-also   *will.be.adopted-COMP* *think*

    'Mary also thinks that her proposal will be adopted.'

<div align="right">[from Saito & An 2014:117 (1), (2)]</div>

Traditionally, it is analyzed that the verb moves out of the VP to T and the remnant NP (the object containing the trace of the verb) in VP undergoes ellipsis. This shows that nouns and verbs can be easily separated.

To sum up, complements (XPs) should be moved from somewhere in the sentence to yield complement-head order; O-V (but not in the case of CP-V), following Kayne's approach. Based on those tests we have seen so far, the properties of XP-movement can be summarized, as in (31):

(31) If XP moves, then:
  a. XP is an island.
  b. XP-V adjacency shouldn't hold.
  c. C on the XP cannot be omitted
  d. Reconstruction effect is predicted.

However, if the XP-complement turns into an IP-complement, i.e., CP rather than a VP-complement, i.e., NP, the application of Generalization 2 fails as follows:

(32) a. John said **yesterday** that Mary bought the book.   S V **adv** CP
  b. *Mary bought **yesterday** the book.   *S V **adv** DP

As seen in (32a), the adjacency requirement can be easily broken down when the object is heavy (due to Heavy NP Shift)[56]. This suggests the possibility that the CP-object in English might have been generated on the left side of the verb and moved to the right side. This is contrary to Kayne's assumption that CP was generated on the right of the verb and moved to the left as in the case of complementizer-final languages like Korean. Accordingly, (33b) should be limited as follows:

(33) If XP moves, then:
  b. XP-V adjacency shouldn't hold, iff XP is VP complement, i.e., NP.

Furthermore, as we have seen before, based on the island effect and generalization 1, in the case of CP-complement in Korean, there was neither clear evidence nor observations that the

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[56] CP complement is quite big/heavy, and it can be easily separated by the verb. For this reason, Zwart (1992) is always using very small NP as the object for his argument.

CP-complement is base-generated on the right of the matrix verb as a sister so that it will be shifted leftward for CP-V order.

Considering this problem, I would like to highlight some empirical evidence of the CP movement leftward. In what follows, thus, we explore the case of right dislocated sentences in Korean, which can be regarded as complement base-generated rightward of the verb.

3.2.2.4. Right-Dislocation

In the previous section, we have devoted to finding evidence that O-V order is the result of XP-movement leftward under Kayne's framework. The adjacency requirement of NP-object and Verb in SVO languages, among the various tests, can be exclusively motivated to move XP, as the empirical evidence (but not IP and CP). Let us consider the following sentence in (34b) where the object phrase is located on the right side of the verb in an effort to find more evidence of XP-leftward movement:

(34) a. Mary-ga   LCA-leul   ihaehaess-da.   (Korean)

        -NOM   -ACC   understood-DEC.

   'Mary understood LCA.'

  b. Mary-ga   ihaehaess-da,   LCA-leul

      -NOM   understood-DEC   -ACC

The canonical word order in Korean is SOV, as in (34a), but the sentence (34b), where the object *LCA-leul* ("LCA-ACC") apparently dislocated to the right of the verbal complex *Mary-ga ihaehaessda* ("Mary understood"), is also acceptable. In colloquial Korean and Japanese (see Tanaka 2001), the phenomenon of an ostensibly scrambled object to the right side is quite observed. This also appears in subordinate clauses:

(35) a. John-i   [Mary-ga   LCA-leul   ihaehaessda-go]   malhaessda. (Korean)

      -NOM   -NOM   -ACC   understood-COMP   said.

   'John said that Mary understood LCA.'

  b. John-i   malhaessda,   [Mary-ga   LCA-leul   ihaehaessda-go]

      -NOM   said   -NOM   -ACC   understood-COMP

(35a) is the canonical word order in relative clauses of Korean [S CP V], and the sentence (35b), where a subordinate clause looks as having moved to rightward, is frequently used in casual conversation of Korean as in (34b).

What we hope to achieve is an analysis whose complements are base-generated to the right of the verb as a sister, which then moves to the left passing the verb. If not, we will not be able to follow the rigorous LCA approach. Therefore, we need to consider the possibility that the examples (a) of (34) and (35) can be derived from the (b) of those, which can be assumed to be a canonical word order [S V CP].

Contrary to expectations, the sentences of (b) in (34) and (35) are not regarded as basic word order in Korean/Japanese, but rather as Right-Dislocation (RD) sentences. We can test this by means of co-reference reading whether RD constituent is a rightward positioning adjunct or as a result of leftward movement under Kayne's antisymmetric approach. Consider the following example:

(36) Yuna-ga **geu-leul**   iyagi hagonhaesseo, [**John-i** cham joheun salam-ieossda-go].
     Y.-NOM he-ACC (**him**)   tell used to.   **J.**-NOM   very good   person-was-that
     'Yuna used to tell about him that John was very good person.'

(36) should be unacceptable on the co-reference reading under LCA, but acceptable. This is because the object pronoun *geu-leul* (him) c-commands the R-expression *John* that is structurally located lower than the object pronoun, violating binding principle C:

(37) Binding Principle C
     R-expressions must be free

The antisymmetric approach importantly implies that what is structurally higher should precede what is lower. If we obviate the upward rightward adjunction or movement, sentence (37) should be ruled out due to the violation of binding C[57]. Under the antisymmetric

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[57] Takano (2003) argues the necessity of two approaches in the cases of rightward adjuncts depending on such a different situation (reconstruction effects and binding patterns) on the basis of empirical evidence from NPI licensing: (i) the symmetric approach to adjuncts that is base-generated to the right-top than the preceding one and (ii) the antisymmetric approach to heavy NP shift to the left side.

He points out that under Chomsky's (2000) bare phrase structure, it is concluded that syntax should take a

hypothesis, there is a way to comply with both binding principle C and leftward movement. Thus, the (37) should be derived from the position where the adjunct originates higher than matrix VP.

We can approach the example (37) to the following methods in (38) as suggested by Takano (2003): Heavy NP shift (Kayne 1994, Larson 1988, Takano 1996, 1998), plus remnant movement approach, by developing Kayne's original hypothesis. Consider the following sentence, in which α is the heavy NP as the complement with overt final complementizer -*go* ("that"):

(38) Yuna-ga **geu-leul** iyagi hagonhaesseo, [α **John-i** cham joheun salam-ieossda-go].

    Y.-NOM he-ACC (**him**) tell used to.   **J.**-NOM very good   person-was-that

    'Yuna used to tell about him that John was very good person.'

Capitalizing on his assumption, heavy NP α is generated higher than matrix VP within the phrase β as in (39a). If that is the case, then, the R-expression *John* can bind the object pronoun *geu-leul* (him):

(39) a. Yuna [$_β$ **α**   **geu-leul**   V]

    b. Yuna **α$_i$** [$_β$ t$_i$ **geu-leul**   V]   → α's heavy NP shift

    c. Yuna [$_β$ t$_i$ **geu-leul**   V] **α$_i$** t$_β$ →β's remnant movement including trace

                                            [adapted from Takano 2003: 519]

The next step is how to place heavy NP α rightward of the verb without adjoining or moving it to the right side. As can be seen in (39b), the heavy NP α first is extracted leftward from the phrase β. In turn, the phrase β with the trace of heavy NP α moves to the left side, remaining its trace too. Likewise, it is possible to evade the violation of binding C by means of reconstruction of the phrase β. In conclusion, the right-dislocated element is not working as the complement of V that is base-generated to the right of the V.

In addition, there is an argument that the Right-Dislocated (henceforth RD) phrase is not in the same sentential domain as the rest of the sentence (Kuno 1978, Zaenen 1997, Tanaka

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"weakly antisymmetric" approach to UG, since heavy NP shift is formed by Set-Merge (formation of complements and specifiers) and adjuncts are derived by Pair-Merge (formation of adjunction structures).

2001). In other words, RD consists of two parallel phrases. The ground of this claim can be found in the vocative particle (*-yo*) in Japanese:

(40) a. John-ga   yonda-yo, LGB-o.   (Japanese)

　　　　-NOM   read   -ACC

　　　 'John read it, LGB.'

<div align="right">[from Tanaka 2001: 551]</div>

In (40), vocative-like element *-yo,* which appears in the C-area, can be on the verb of the RD constructions, as well as the interrogative particle, like *–ka,* also can appear in the verb. This phenomenon is the same for Korean:

(41) a. Mary-ga   ihaehae-**yo**,   LCA-leul   (Korean)

　　　　-NOM   understand   -ACC

　　 b. Mary-ga   ihaehabni-**kka**,   LCA-leul?

　　　　-NOM   understand-Q   -ACC

The C-area is already occupied by the complementizer elements *-yo* and *-kka* in the verb of RD constructions. This observation leads us to believe that the right-dislocated element is located outside the CP-layer, thus not right next to the verb. Tanaka (2001) puts forward that RD construction is derived in the following manner, adopting Kuno's (1978) idea:

(42) a. [Mary-ga   pro   ihaehae-yo], [Mary-ga   LCA-leul   ihaehae-yo]

　　 b. [Mary-ga   pro   ihaehae-yo], [LCA-leul$_i$ [Mary-ga t_i ihaehae-yo]]

　　 c. [Mary-ga   pro   ihaehae-yo], [LCA-leul$_i$ [~~Mary-ga t_i ihaehae-yo~~]]

<div align="right">[adapted from Tanaka 2001: 552]</div>

The underlying structure of (42) is that two sentences are laid out in parallel, and "pro" means a gap[58] where the object position is empty. This shows that there is no syntactic

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[58] Kuno (1978) stipulates "pro", i.e. gap, in a sentence like (37), but for Tanaka (2001), a gapless sentence, where the identical lexical item with RD element, is located in the gap position as in (i):

(i) a. Mary-ga   **geu iron-eul**   ihaehae-yo,   LCA-leul

movement between "pro" and the RD element. The RD constituent undergoes, in turn, scrambling and deletion, as in (42b) and (42c).

This approach, assuming two parallel sentences and ellipsis, can also be extended to the subordinate clause. For convenience, (43) is repeated here:

(43) a. John-i [Mary-ga   LCA-leul   ihaehaessda-go] malhae-yo. (Korean)

      -NOM   -NOM   -ACC   understood-COMP said.

    'John said that Mary understood LCA.'

  b. John-i   malhae-yo, [Mary-ga   LCA-leul   ihaehaessda-go]

      -NOM say   -NOM   -ACC   understood-COMP

In order to yield RD construction like (43b), it is possible to have two identical clauses and the repeated subordinate clause is also grammatical as illustrated in (44):

(44) John-i   pro malhae-yo, [[Mary-ga   LCA-leul   ihaehaessda-go]ᵢ

     -NOM   say   -NOM   -ACC   understood-COMP

   [John-i   tᵢ   malhae-yo]].

     -NOM   say

The right-dislocated subordinate clause *Mary-ga LCA-leul ihaehaessda-go* ("that Mary understood LCA") has undergone scrambling from the root clause whose construction is gapless. The clausal ellipsis of the remnant sentence is carried out as PF-deletion.

Such a bi-clausal and ellipsis approach is also applicable to the left dislocation phenomenon in German:

(45) Den Peter, den habe ich gesehen.   (German)

    the Peter   him have I seen

                                        [from Ott 2014: 269]

      -NOM   the theory-ACC   understand   -ACC

  'Mary understands the theory, LCA.'

See Tanaka (2001: 553) for the correlation between "pro" and RD constituent.

The Left-Dislocation construction, as in (45), can be analyzed in (44) as follows:

(46) a. [$_{CP1}$ habe ich **den Peter** gesehen] [$_{CP2}$ habe ich **den** gesehen]

    b. [$_{CP1}$ [den Peter]$_i$ [habe ich t_i gesehen]] [$_{CP2}$ den$_k$ habe ich t_k gesehen]

    c. [$_{CP1}$ [den Peter]$_i$ [~~habe ich t_i gesehen~~]] [$_{CP2}$ den$_k$ habe ich t_k gesehen]

<div align="right">[from Ott 2014: ibid.]</div>

In (46), the CP1 is juxtaposed with CP2, whose host clause contains the correlate element *den* ("him") of *den Peter* ("The Peter"). The two objects are scrambled leftward (A-bar movement) in each CP area. The remnant of the sentence of CP1, after left-dislocating *den Peter* is deleted on the phonetic form (PF), yielding (46c). This part is related to left periphery phenomenon, which is the main topic of this dissertation, and thus will be discussed in detail in chapter 5.

To sum up, it is hard to find the possibility that right-dislocated phrases in Korean are base-generated on the right of V as a complement, and then shifts to left. Rather, the RD element bears another domain outside of the CP, and it is by and large analyzed as the production of a reduced clause by PF-deletion.

As a result, given these various factors and tests, it seems difficult to conclude that object shift is a generalized transformation to be OV order, based on the evidence of IP-leftward movement which can be inferred from *that*-trace effect. Such an explanation under the LCA approach, whose IP moves over C and matrix V in the relative clause in SOV languages, would somewhat lose the predictive power. For these reasons, we take only adjacency-requirement between DO and V as evidence for yielding O-V, but not for yielding IP-C and CP-V order, contrary to Kayne's (1994) claims.

3.3 Inflectional verb patterns in head-final languages

The previous section delved into two aspects with respect to the VP part, i.e., O-V order under Kayne's (1994) LCA approach. One was that the O-V word order is the output of the XP-leftward movement, and the other was to explore what is the precise grounds are for reasoning that XP moves to the left side passing the verb. The VP part in Korean discussed before will be dealt with later in relation to the topic-focus system. In this section, we explore how inflectional verb formation in Korean is generally analyzed in syntax based on

agglutinative properties. This will be related to the Force-Finiteness system in Rizzi's (1997) cartography as part of IP/TP and CP in Korean.

The crucial point of verbs in Korean is that verbs are complex words derived by affixation following the stem in comparison with English and Spanish. Notice the bold type:

(47) a. Mary learn-**ed** Spanish and…   (English)

    b. Mary aprend-i**ó** español y ...   (Spanish)

    c. Mary-ga Spanish-leul   baewo-**ess-go**...   (Korean)

        -NOM   -ACC   learn$_{-PST}$-and

Focusing on the verb-formation in Korean, past tense suffix *-ess* (Eng. "-ed") and connective *-go* (Eng. "and") are followed by the stem *baewo-* (Eng. "learn") in turn. As we have seen in the previous chapter, there was no suffix in terms of subject-verb agreement in Korean, whereas Spanish as in (47b) *-ió* in verbs, bears formal features: [past tense] and [3rd person singular] agreeing with the subject *Mary*.

On the other hand, Korean verbs, suffixes that determine the clausal type, or the illocutionary force, are obligatorily marked at the very end of the complex verb. It means that CP in Korean is an obligatory projection since every verb stem should be closed off by a morpheme of C: for example, *-da* refers to declarative, *-ni/-kka* interrogative, and *-guna* exclamative, respectively, as in (48):

(48) a. baewo-ess-**da**.   (Korean)

      learn$_{-PST-DEC}$

    b. baewo-ess-**ni**?

      leran$_{-PST-Q}$

    c. baewo-ess-**guna**!

      learn$_{-PST-EXCL}$

Morphemes like *-ess, -si, -gess,* which combine with a stem to form a complex stem, are stem-forming suffixes; clausal type morphemes, like (48), and connective *-go,* which combine with a word to form another word, are word-forming suffixes. There is strict, hierarchical linear ordering among those morphemes which are attached to a verb stem, as illustrated in (49):
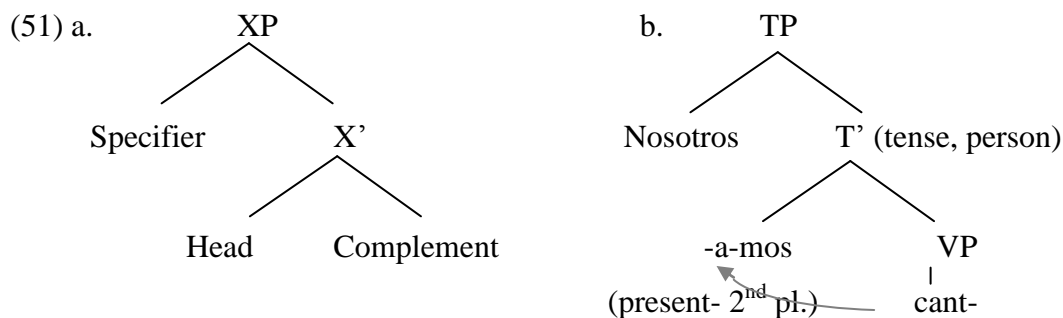
(49) a. baewo-   'learn' (stem/root)

    b. baewo-ess-da   'learn$_{PST-DEC}$'

    c. baewo-si-eoss-da   'learn$_{HON-PST-DEC}$'

    d. baewo-si-eoss-gess-da   'learn$_{HON-PST-MOD}$ (may)$_{DEC}$'

    e. *baewo-eoss-si-da   'learn$_{PST-HON-DEC}$'

    f. * baewo-da-eoss-si   'learn$_{DEC-PST-HON}$'

    g. *baewo-si-da-eoss   'learn$_{HON-DEC-PST}$'

    h. *baewo-si-gess-eoss-da   'leran$_{HON-\ MOD}$ (may)$_{-PST-DEC}$'

In the previous section, we have capitalized on Kayne's (1994) LCA and anti-symmetric approach to compare two languages as a generalized transformation and, moreover, to reach Rizzi's (1997) cartography. The fact that the complement-head of each category is derived by phrasal units with leftward movement obeying LCA implies that we need to take into account whether IP/TP and CP in Korean, which are categories related to verb-formation, are also the result of XP leftward movement. In the head-initial languages like Spanish and English, inflectional morphology is performed by means of verb movement, i.e., X^0-movement in syntax.

(50) a. Nosotros cant-a-mos.   (Spanish)

      we   sing$_{-\ PRS\ -2.Pl.}$

    b. [$_{TP}$ Nosotros   [$_{T'}$ -amos   [$_{VP}$ nosotros   cant-]]]
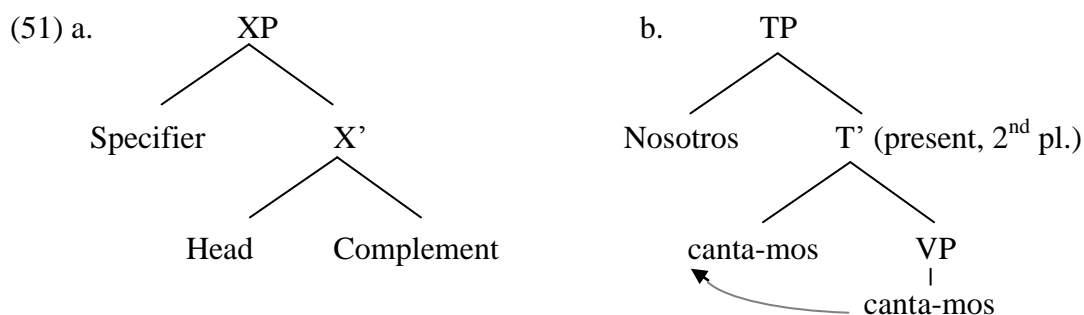   ①   ②
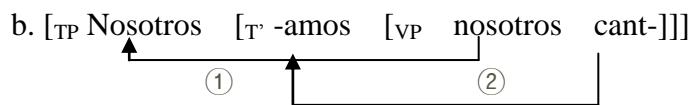
As can be seen in (50b), the structure of TP is articulated as a morpheme, with which are fused features of [tense] and [person and number] with regard to the subject. The head T holds these features and triggers verb-movement to license its features under spec-head agreement configuration (Chomsky 1986b, 1993, Chung 1998).

100

(51) a.

```
              XP
            /    \
      Specifier   X'
                 /  \
              Head   Complement
```

b.

```
              TP
            /    \
      Nosotros   T' (tense, person)
                /    \
            -a-mos    VP
       (present- 2nd pl.)   |
                           cant-
```

The subject *Nosotros* (Eng. "we") moves to Spec-TP projection from Spec-vP to give linear order or be assigned a nominative case. The morpheme *-mos,* which indicates [present tense] and [2nd pl. person], is in T and it provides the motivation to trigger verbal root *canta-* (Eng. "Sing"). Thus, the relation of subject-verb agreement between *Nosotros* and *-mos* is morphologically satisfied by virtue of the verb *canta-* movement under the spec-head agreement system (Halle and Marantz 1993, Bobaljik 1994, Lasnik 1995)[59].

There is another sense in which the T is already inflected in syntax, unlike (51b). Consider the following construction:

(51) a.

```
              XP
            /    \
      Specifier   X'
                 /  \
              Head   Complement
```

b.

```
              TP
            /    \
      Nosotros   T' (present, 2nd pl.)
                /    \
           canta-mos   VP
                        |
                     canta-mos
```

(52b) shows that the inflected verb *canta-mos* is inserted in V and moves to the inflected T, where has [present tense] and [2 person pl.] features. Thus, the features of functional T are licensed by checking relation (Chomsky 1995).

---

[59] The relationship between verbal morphology and syntax can have two major approaches as pointed out by Takano (2004). One approach claims that finite verbs are completely inflected when entering syntax and the features of functional head T are licensed by checking relation (Chomsky 1995). The other approach is that the finite verb, which is uninflected (e.g. the root), enters in syntax, and is merged in the phonological component with the inflectional morpheme which is located in T (Halle and Marantz 1993, Bobaljik 1994, Lasnik 1995). (5b) corresponds to the second approach. If this applies to the first approach, the inflected verb *cant-amos*, in which the inflectional morpheme *-amos* is regarded as a part of V, rather than the root *cant-*, enters syntactic derivation fully inflected and the features of T (e.g. present 2nd pl.) will be checked by movement according to the checking relation.

The distinction between these two perspectives can be applied to the morphological difference between agglutinative richness in Korean and inflectional richness in Spanish. I suggest that T of Spanish is already inflected in syntax and inflectional morphemes are regarded as a part of V, as in (52b). On the other hand, T of Korean, in which the inflectional morphemes located in T separately, is not inflected, such as (51b), and is merged in PF. The fact of whether or not all finite verbs are fully inflected when they enter syntactic derivation is expected to affect verb movement in Korean. I put aside for a moment discussions with respect to the functional T-issue; at first, I consider the direction of derivation in Korean verbs which can be controversial.

3.3.1 Considerations on XP and X-movement in verb of Korean

As argued above, I take the X-bar structure and LCA approach as a unifying principle for cross-linguistic comparison. If we combine X-bar configuration (Chomsky 1992) and the LCA approach, in which movement invariably targets heads (i.e. only leftward movement) and specifiers to a functional category, the following properties of inflectional morphemes in Korean are forced to be considered:

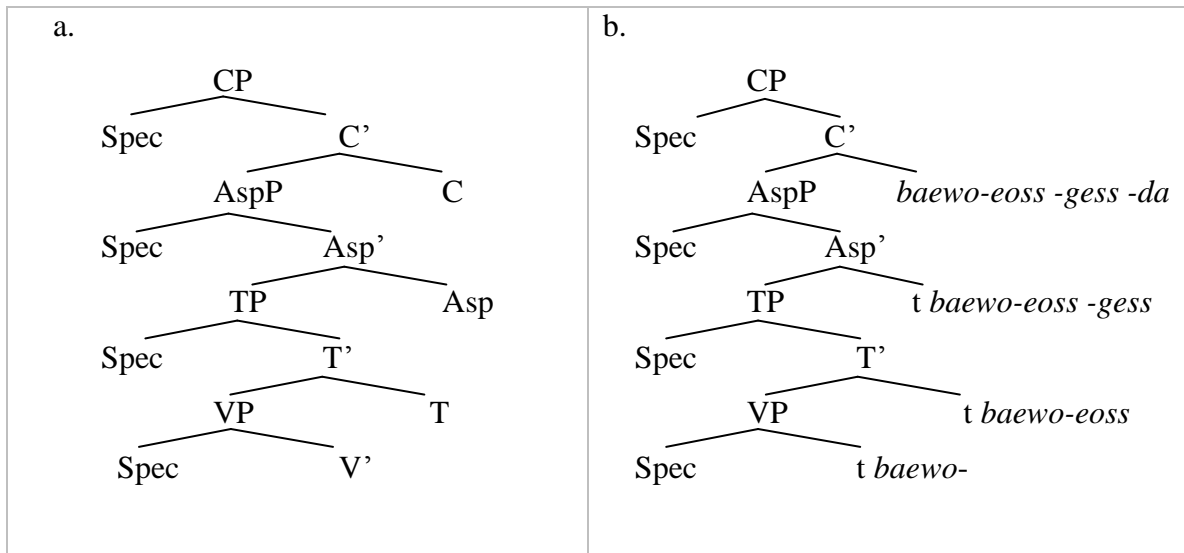(53) Inflectional morphology is articulated by means of:
    a. XP-movement as phrasal affixes
    b. X-movement as heads of maximal projections

If the inflectional morphemes are regarded as phrasal affixes following the combination of Kayne and Chomsky, a phrase or a compound constituent moves to the left side, i.e., an inflectional morpheme triggers movement as a phrasal unit (Koopman 2005; Kayne 1994). This approach cannot be compatible with the derivation of rightward movement by phrase (see Tanaka 2003: 522). On the other hand, if inflectional morphemes are assumed as the head of an independent syntactic unit, it can be derived that the inflectional morphemes are in each projection as a head and formed by verb's movement itself rightward (Mahajan 1989, 1990; Deprez 1990; Yoon 1990). Let us first consider (53b).

    Yoon (1990) exploits the following structure of IP/TP and CP, which has been predominantly employed in Korean and Japanese, as in (54a). Although Yoon claims that the inflectional morphology is formed via X-movement of the verb, in fact, it is observed that amalgamated forms raise upward projection to combine with another inflectional morpheme,
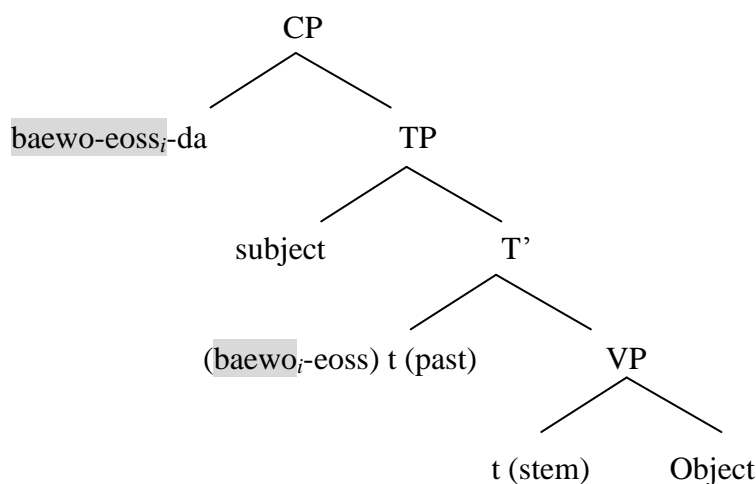
not as a unit of simple verbal root- movement, as illustrated in (54b). Thus, it is hard to say that this is a pure X-movement in inflectional morphemes.

(54) baewo-eoss-gess-da   'learn-Past-modal (may)-Decl'

```
a.                                    b.
            CP                                    CP
        /        \                            /        \
     Spec         C'                       Spec         C'
               /      \                              /      \
            AspP        C                         AspP      baewo-eoss -gess -da
          /      \                              /      \
       Spec       Asp'                       Spec       Asp'
              /        \                             /        \
            TP          Asp                        TP        t baewo-eoss -gess
          /     \                               /      \
       Spec      T'                          Spec       T'
              /      \                               /        \
            VP        T                            VP        t baewo-eoss
          /     \                               /        \
       Spec     V'                           Spec        t baewo-
```

If I only consider leftward X-movement away from this structure, then the following derivation is predicted, as illustrated in (55):

(55) a. baewo-ess-da   'learn$_{PST-DEC}$'

b. X^0-movement in verb of Korean (V-T-C)

```
                        CP
                   /          \
        baewo-eoss_i-da         TP
                            /        \
                        subject       T'
                                  /        \
                    (baewo_i-eoss) t (past)  VP
                                            /    \
                                      t (stem)   Object
```

The complex verb formation process of (55b) is derived in the same way as in (54b). To give the SOV linearization, after forming the amalgamated form *baewo-eoss-da* (learn-Past-

Declarative), it can be suggested that the TP remnant containing the subject *Mary-ga,* and the direct object *Spanish-leul* with case markers, moves higher than the complex verb of CP:

(56) a. Mary-ga   Spanish-leul   baewo-eoss-da.

    -NOM   -ACC   learn-PST-DEC

'Mary learned Spanish.'
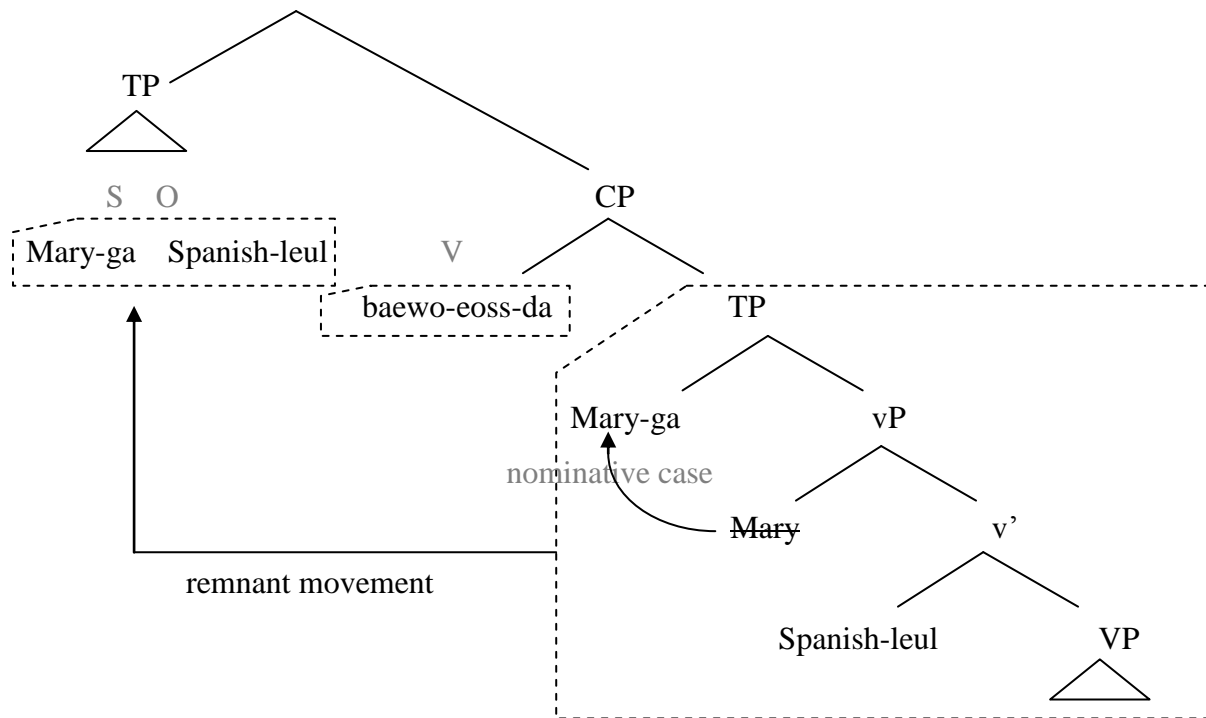
The questions that can be raised with this analysis are what motivate the remnant S-O to move higher than CP. If we want to follow Kayne's (1994) LCA approach, in which the complex verbs in Korean are derived syntactically from head-initial structures by phrasal movement, and avoid the pointed problems, then the following TP structure will be expected as illustrated in (57):

(57) [TP [vP… [V …]][T' [T …]]]

[from Koopman 2005: 604]

In (57), VP that remains V is attracted to the specifier of T, yielding the head-final property. This structure parallels the last step in (15d) (in bold type):

(15d) …X [$_{YP}$ … Y ZP]… → …X [$_{YP}$ZP Y t]… → [$_{YP}$ **ZP Y t$_{ZP}$**] **X t$_{YP}$** …

This is, for example, similar to that of *'s* in English and a cooperative phrase:

(58) a. [[$_{DP}$ John] ['s [brother]]]

   b. [$_{DP}$ John [and [Mary]]]

(58) shows that not two separate DPs merge like [$_{DP}$] 's/and [$_{DP}$], but phrasal affixes like *'s / and* trigger another phrase to move. Bearing this background in mind, the following is derived from applying phrasal movement and ellipsis as suggested by Koopman (2005):

(59) Mary-ga   Spanish-leul   baewo-eoss-da.

        -NOM   -ACC   baewo-PST-DEC

(60)   [$_{VP}$ Mary [baewo- Spanish] …]]

                                                            Mary   learn   Spanish

   b. *Merge v for case markers* (-ga) and(-leul), *attract NP* (Mary) and (Spanish) →

                              [$_{vP}$ Mary-ga [$_v$ Spanish-leul]] [$_{VP}$ ~~Mary~~ [baewo- ~~Spanish~~]]

                              -NOM   -ACC   learn-

   c. *Merge F, move VP* →

                           [$_{FP}$ [$_{vP}$ M-ga Spanish-leul]] [$_F$ [$_{vP}$ baewo-]] [$_{vP}$ ~~gongbuha~~]]]]]

                              -NOM   -ACC   learn-

   d. *Merge T, FP rolles up to TP* →

                    [$_{TP}$ [$_{FP}$ [$_{vP}$ M-ga Spanish-leul]] [$_F$ [$_{vP}$ baewo-]] [$_T$ -eoss [~~$_{FP}$~~ ~~[$_{vP}$ …]~~ ~~[$_F$ [$_{vP}$ …]~~]]

                              -NOM   -ACC   learn-   -PST

   e. *Merge C* (-da), *TP rolles up to CP* →

         [$_{CP}$ [$_{TP}$ [$_{FP}$ [$_{vP}$ M-ga Spanish-leul]] [$_F$ [$_{vP}$ baewo-]] [$_T$ eoss [$_C$ -da]]]]]] ~~[$_{TP}$ [$_{FP}$ [$_{vP}$ M-ga~~

                                               ~~Spanish-leul]] [$_F$ [$_{vP}$ baewo-]] [$_T$ eoss]]]~~

                                               [adapted from Koopman 2005: 609]

As can be seen in the (60), if the morphemes are phrasal affixes, then the units in which the elements are amalgamated forms are rolled up to Spec position by a phrasal affix, which is a head of maximal projection. By this way of derivation, the rolled-up constituents become

significantly heavy. In other words, heads remain in-situ and the whole SOV$_{root}$ is formed by triggering the movement of heavy units.

The definition of 'roll-up' can be compatible with 'pied-piping', which is nontrivial in playing a role as phrasal affixes in Koopman (2005). This manner can yield the following example in English:

(61) [[[Whose brother]'s friend]'s car] did you borrow?

[from Koopman 2005: 606]

Bearing this in mind, I include the detailed syntactic derivation-tree to better understand (60). For convenience, I use the abbreviation of "S" for subject and "O" for Object and "decl." for declarative due to space. Note that the past tense morpheme *-eoss* and declarative morpheme *-da* are phrasal affixes for inducing phrasal movement:

(62) a.
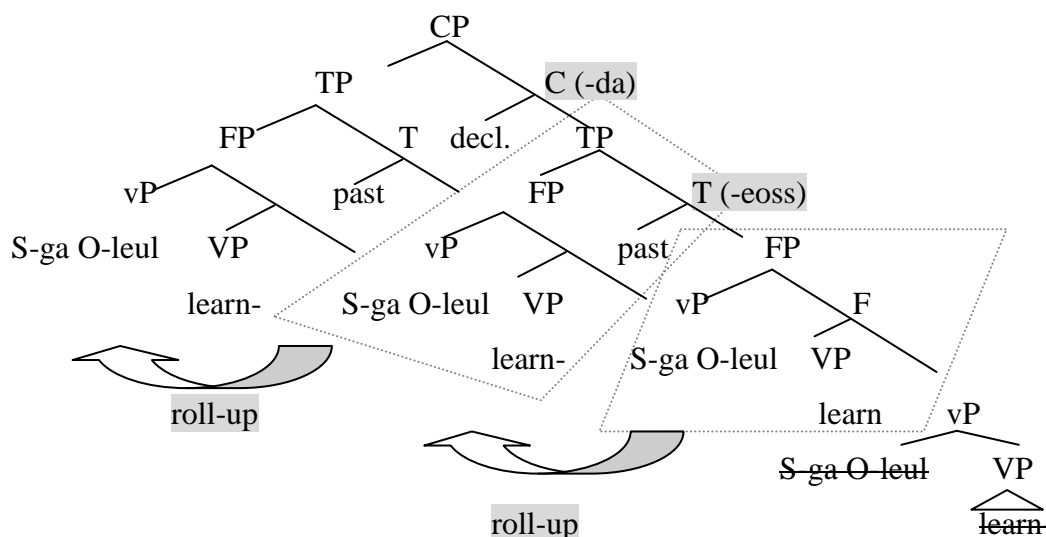
b. Result of word order: S-ga   O-leul   learn$_{PST-DEC}$

In order to account for the position of the subject in Korean, the analysis that nominative case is assigned VP-internally, namely Hypothesis of VP internal subjects, has been principally supported by the observation of multiple subjects and lack of properties in subject-verb agreement (Diesing 1989, Tateishi 1988)[60]. As for the nominative case assignment, we will discuss it in detail in the part of coordination and NegP constructions.

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[60] Note that there are many tests to prove whether subjects in Korean and Japanese remain within vP (J.-M.

Similarly, I assume that small v is responsible for assigning nominative case *-ga* in the specifier of vP and accusative case *-leul* in v. The setting of F is inevitable in which the selection must occur locally under the Principle of Locality of Selection (Sportiche 1998, 2000, 2001). The clausal ellipsis is commonly implemented as PF deletion of IP/TP as suggested by Merchant (2001), but Japanese and Korean probably have massive argument drop, according to Hoji's (1998) assertion. Thus, it is possible to delete massive TP, as in (60f).

To capture a simple and quick derivation of linear order between SOV_{root} and inflectional morphemes, I reiterate the more bare structure to yield the whole construction (62):

(63) a.

Linear order: XP H_1 H_2

SOV_{root} -da-eoss

b.

Linear order: XP_3 H_2 H_1

SOV_{root} -eoss-da
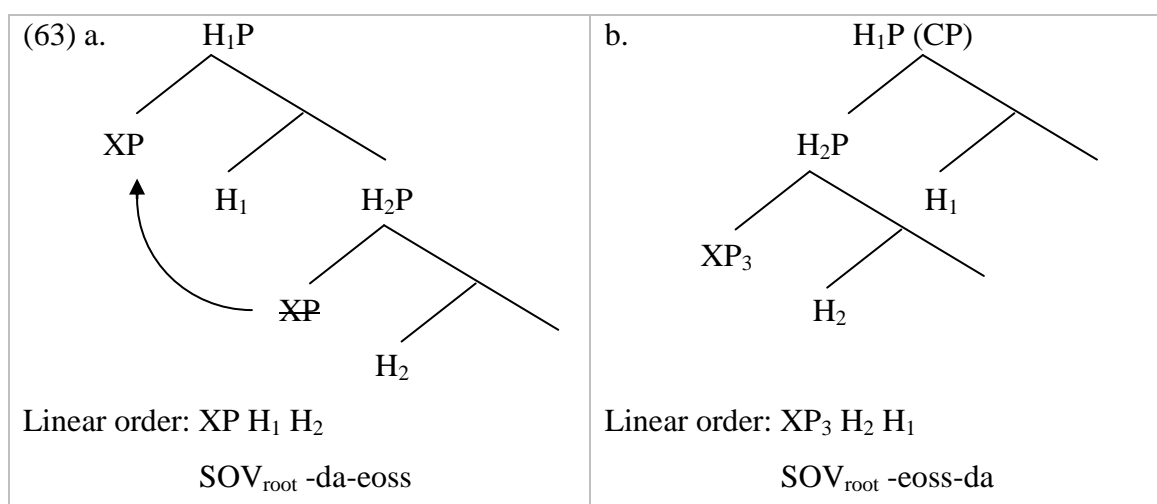
[from Koopman 2005:605-606]

In (63a), if XP is SOV_{root}, H_1 is the head of C, which has the declarative morpheme *-da* and H_2 is T bearing the past tense morpheme *-eoss*, then the expected linear order is similar to XP H_1 H_2, which is not allowed. After rolling-up the phrase H_2P, then the linearization is legitimate[61].

Yoon 1991, Fukui 1986, Kuroda 1988 among many others; also see Rizzi 1990) or they undergo raising to Spec-TP (Miayagawa 1989, Kishimoto 2001).

[61] This method shows well that inflectional morphemes in Korean have agglutinative natures. However, the problem with this operation is that it requires unrestrictive movement and the phrasal affixes give rise to the complexity of the operation by attracting the heavy phrases-movement. As a native speaker, I doubt whether this syntactic operation is a natural processing in my cognitive mechanism.

H$_2$P is only allowed to form the legitimate word order of verbal morphology (i.e. for Vroot-T-C). However, both structures of (63a) and (63b) are legitimate in some phrases. This fact is observed in the following example where a delimiting particle *-kkagi* (Eng. "up to", "even") and the dative case marker *-hanthey-* can take turns changing their linear order.

(64) a. (Simjieo) Swuni-*hanthey-kkagi*-neun ju-eoss-da.   (Korean)

      Even   Swuni-DAT-even-FOC   give-PST-DEC

     'I gave it even to Swuni.' (hierarchy: *-hanthey < -kkagi-*)

   b. (Simjieo) Swuni-*kkagi-hanthey*-neun ju-eoss-da.

      Even   Swuni-even-DAT-FOC   give-PST-DEC   (hierarchy: *-hanthey < -kkagi-*)

                   [adapted from Sell 1995:285, cited in Koopman 2005:608]

Returning to the example of (38), the anti-symmetric approach indicates that on the surface, the preceding constituent in linearization c-commands the following ones; that is to say, what ostensibly precedes structurally should be higher than the following one. Thus, in (64b) the dative particle *-hanthey*, which has a wider scope than in (64a) but appears on the surface to the right of a lower one, should follow the operation of (63b) (without considering the symmetric approach, i.e., rightward and upward adjoin).

(63) a. Linear order: XP H$_1$ H$_2$
    Swuni-*hanthey-kkagi*

b. Linear order: XP$_3$ H$_2$ H$_1$
    Swuni-*kkagi-hanthey*
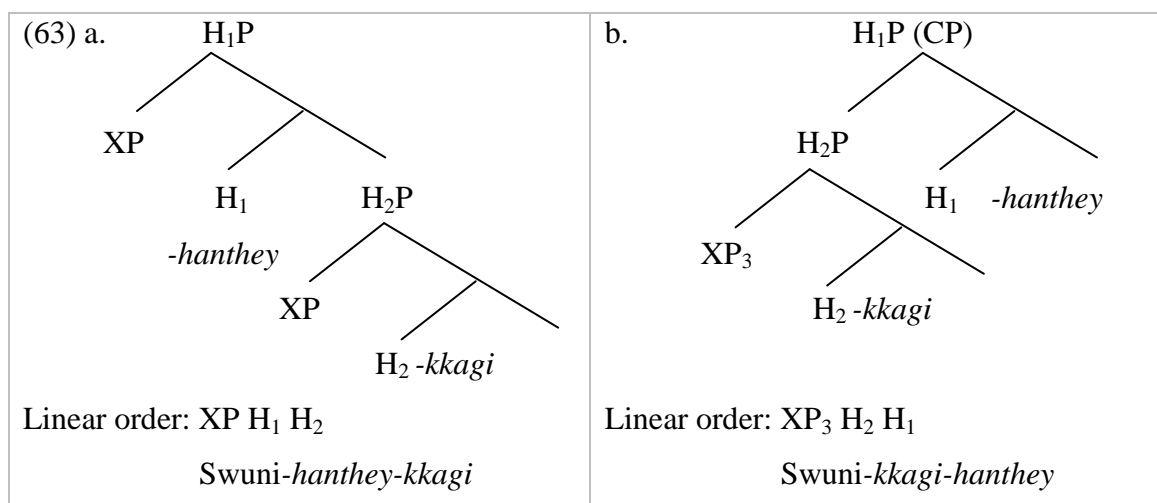
There is another empirical argument in English that the following element c-commands the lower one, as shown in (65):

(65) a. ?John twice intentionally knocked on the door.

b. ??John intentionally twice knocked on the door.

c. John knocked on the door twice intentionally.

d. John knocked on the door intentionally twice.

<div align="right">[from Andrew 1983, cited in Takano 2003: 517]</div>

Takano (2003) states that in (65a-b) the preceding adjunct is structurally higher than the following one, whereas in (65c-d) the following adjunct is lower than the preceding one. In the case of English, Takano suggests that in (65c-d) the higher element is right-adjoined to a phrase bearing the lower element (i.e., symmetric approach).

The point that I would like to indicate is whether a language is SVO or SOV; all languages do not employ only one strict construction, but two types of approach; anti-symmetric vs. symmetric or X-movement vs. XP roll up-movement[62].

So far, we have seen that phrasal affixes forming complex verbs in Korean cause phrasal movement and ellipsis processing of remnant parts in PF to yield SOV word order. The advantage of this is that we can maintain our analysis in Kayne's (1994) antisymmetric and LCA approach. At the same time, however, it raises unrestrictive heavy phrase movement,

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[62] Koopman (p.c.) also points out that Korean mostly may have the (63b) construction and (63a) appears in some cases. Otherwise, the derivation like (63a) could be flipped up at PF as in (63b) to give linear order. As presented in Koopman (2005), the preceding focus marker *-man* (Engl. only) and the following universal quantifier *modeun* (Eng. every) can have two scopes.

(i) a. John-man   modeun-salam-i   saranghan-da.   (Korean)

    John-only   every-person$_{NOM}$ love$_{-DEC}$

    'Only John, everyone loves'

(ii) Possible readings

   a. Everyone loves John and no one else. (every > only)

   b. John is the only one whome every loves. (only > every)

<div align="right">[from Lee 2005:(26)]</div>

However, when the accusative marker *-leul* is attached to the *-man*, i.e., *-man-eul* cannot take scope over the universal quantified subject:

(iii) John-man-eul   modeun-salam-i   salanghan-da.   (Korean)

   John only$_{-ACC}$ every-person$_{NOM}$ love$_{-DEC}$

   'Everyone loves John (and no one else). (every > only, *only > every)   [from Koopman 2005:628]

thus intricacy of operation. On the other hand, the rightward branching tree should be considered in order for X^0-movement of the verb. This is an easy way to generate a verb-final word order and seems to be a more natural manner for native speakers. However, the violation of the LCA approach is inevitable. In conclusion, by and large, in Korean, verb-heads themselves do not seem to play a nontrivial role in triggering the movement.

In the forthcoming section, the evidence in favor of the peculiar status of the functional category T in Korean is discussed when comparing it to Spanish. To this end I present some arguments where 'no verb raising' appears in a Negative and coordination construction in Korean (including Japanese) to prove the intuition that the verb is not as active as Spanish. I will start by considering coordination constructions in which special properties of T are displayed in Korean.

3.3.2 TP projection as a macro-parameter

As mentioned at the beginning of section 4.2.1, the functional category TP is responsible for the licensing of argumental features such as case and agreement. It is also relevant for morphological tense morpheme.

(64) TP projection

      a. licenses nominative case to qualify as a subject.

      b. triggers the verb movement to head-TP to have the relation of subject-verb agreement

          (v-T movement).

      c. bears tense morphemes.

In the Minimalist Program (Chomsky 1995), D-features in T projection were established as a parameter in cross-linguistic variations. According to this, in the case of a particular language, it was postulated that the overt movement of an element is required to be checked against D features in syntax as they are strong. This parametric setting leads to the necessity of head movement in verbs among many linguists of Romance languages.

In this vein, I would like to address the three properties of T-projection in Korean to delve into the correlation between the active verb movement patterns and the dynamic left peripheral fronting in the sense of Gallego (2010). This is because a syntactic macro-parameter in between Spanish and Korean may be considered to be in TP projection (or

expansively to CP). Let me begin with the subject and the subject-verb agreement comparing Korean with Spanish and English.

There are two types of languages, namely pre-verbal and post-verbal subject languages. Pre-verbal languages involve movement of the vP-internal subject (henceforth I use *v* for intransitive and *v** for transitive structure; cf. Chomsky 2001) to the Spec-TP position which is obligatory and based on the basic observation that subject should always precede the verb or require to the subject position in English (i.e., not pro-drop language). On the contrary, in Spanish and Korean, subjects both precede and follow verbs:

(65) a. John has arrived   (English)

    b. *Has arrived John

(66) a. Juan ha llegado.   (Spanish)

    'Juan has arrived.'

    b. Ha llegado Juan

(67) a. Juan-i   dochagha-eoss-eo.   (Korean)

    J.-Nom   arrive-PST-DEC

    b. ?Dochagha-eoss-eo, Juan-i

It is demonstrated that in (65) English T assigns nominative case triggering subject raising to the Spec-TP from the base-generated in Spec-vP, where the thematic role is assigned. In the case of Spanish, where both pre-verbal and post-verbal subjects are possible, the subject undergoes raising to Spec-TP to take the nominative case or it can remain in-situ (Koopman & Sportiche 1988: VP-internal Subject Hypothesis)[63][64].

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[63] According to Chomsky (2001), the subject can base-generates in Spec-vP which assigns agent thematic role. Considering the possibility of post-verbal subjects in Spanish, henceforth I assume that post-verbal subjects in Spanish remain in Spec-vP in that case.

[64] There are several discussions concerning the position of the subject in Spanish comparing it to English. That is to say, the nature of the base-generated in Spec-TP position in English and of the Spec-TP position in Spanish, to which the pre-verbal subject has undergone movement,are different (Argument position for English and Non-argument for Spanish). This intuition has been proven in various tests of extraction subject-island (Uriagereka 1988; Gallego & Uriagereka 2007b; Chomsky 2008; Jiménez-Fernández 2013; Rubio Alcalá 2014).

Although the subject of Korean is also acceptable to be post-verbal, it seems to be different from that of Spanish. In other words, a comma intonation is required and this way may be used to emphasize 'who has arrived'. Hence, this seems to be closer to the case of Right-Dislocation we already discussed in the previous section.
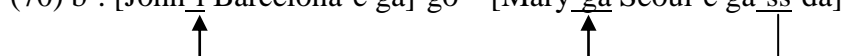
By and large, it has been considered that the nominative case in Korean is assigned in Spec-vP (against Miyagawa 1989, 2001, 2005; Kishimoto 2001, 2017), which is a base-generated subject, i.e. it does not undergo subject raising to Spec-TP[65]. This is due to the fact that in Korean coordination construction is observed, as seen in (68):

(68) a. John went to Barcelona and Mary went to Seoul.   (English)

    b. John goes to Barcelona and Mary went to Seoul.

In English, the inflected verb displays its own tense within its scope. Put differently, in the case of (68a), John and Mary 'both' went to those cities 'in the past', but (68b) means that John goes 'now' and Mary went 'in the past'. This shows that each T has its own scope. Let us see the cases of Korean about the counterparts to (68a) and (68b):

(69) a. [John-i Barcelona-e ga-ss]-go   [Mary-ga Seoul-e ga-ss-da]   (Korean)

        -NOM   -to go-PST-and   -Nom   -to go-PST-DEC

    b. [John-i Barcelona-e ga]-go   [Mary-ga Seoul-e ga-ss-da]

In the data (69a), the past tense morpheme *-ss* bears its own scope in the first clause, such as (68a). The point to be noted, however, is that the sentence of (69b) has an ambiguous reading. (69b) is interpreted not only as (68b), but also as (68a) and (69a). This is because the Tense of the second clause extends to the first clause. In this connection, thus, one tense element (e.g. one T) is forced to assign two nominative cases to both John and Mary.

(70) b'. [John-i Barcelona-e ga]-go   [Mary-ga Seoul-e ga-ss-da]

---

[65] In Kishimoto (2017), there are detailed discussions on the way of measuring whether or not the subject undergoes raising to Spec-TP by providing NPIs arguments in Japanese in comparison with English. Kishimoto refers to the subject inside vP as 'thematic subject' and to the raised subject to Spec-T as 'nominative subject'. We will discuss whether the subject position in Korean is in Spec-vP or Spec-TP in the next section.

① nominative　　　　　　②nominative　T

(70) leads us to conclude that the nominative case was not assigned by Tense. Moreover, another argument relevant for this is found in NegP in coordination construction.

(71) [John-i Barcelona-e ga]-go　　[Mary-ga Seoul-e ga]-ji　*ani*　ha-ess-da]
　　　　　　⊗　　　　　　　　　　　　　　　⊗　　　　　▨　　　|T

In the above example of (69b), not only is there a doubt as to whether the Korean T is qualified as the nominative case assigner, but doubts also exist as to whether tense features are prevalent in Korean, i.e., the possibility of an absence of TP or defective TP (cf. Kang, J-M 2014)[66]. As will be discussed briefly in the next section, there is another plausible test that in NegP, T is difficult to perform as a nominative case assigner. I put aside this issue for a moment, and turn to the issue of subject-verb agreement.

Now, let us turn to the subject-verb agreement between Korean and Spanish. As is well-known, Korean does not hold the system of subject-verb agreement. The example (50) is repeated here for convenience:

(50) a. Nosotros cant-a-mos.　　　　　　　　　　　　　　　　　　　(Spanish)

　　　　we　　　　sing- PRS- 2.Pl.-

　　b. ulideul-eun　　nolaebuleu-n-da.　　　　　　　　　　　　　　　(Korean)

　　　　we-TOP　　　　sing-PRT-DEC

In (50a), the morpheme *-mos* in Spanish, which agrees with *nosotros* (Eng. "we"), does not appear in Korean. Although it sounds a somewhat odd, the plural morpheme *-deul* in *ulideul* (Eng. "we") can attach to the end of the verb, as shown in the honorific morpheme marked sentence in (72b):

(72) a. [?]uli**deul**-eun   nolaebuleu-n-da-**deul**.   (Korean)
           plural   plural

    b. seonsang**nim**-**kkeseo**   nolaebuleu-**si**-n-da.
       teacher(HON)-NOM(HON)   sing-HON-PRT-DEC

I do not regard *-si* (honorific morpheme) and *-deul* (plural morpheme) as an agreement morphemes in terms of subject, but rather they provide pragmatic effect since the presence or absence of those morphemes does not affect the grammaticality of sentences according to Yoon's (1990) claim (against Koopman 2005). Therefore, I would like to conclude that the subject-verb agreement in Korean does not provide a syntactic mechanism.

To sum up, in Spanish, the position of the subject can hold both Spec-TP and Spec-vP in the light of the possibility in pre-verbal and post-verbal subject order. In the case of Spec-TP in Spanish, it is generally assumed that the position of Spec-TP bears a non-argumental property through much testing regarding the extraction of the subject from an island (i.e. a phrase once moved from its original position). Going more in-depth on subject activity, the reasons for subject-raising to Spec-T in Spanish may vary depending on different perspectives (adjunct permits PRO operator, topicalization, defectiveness property in the head of CP, etc.). In the case of Korean, much research and debate are needed as to whether subject-raising to TP takes place. However, it has been generally verified that the nominative of Korean is difficult to be checked in T through the coordination construction test and thus, is marked as a subject in Spec-vP. Recently, Kishimoto (2017) suggests both possibilities, in which the subject remains in vP-internal (Koopman and Sportiche 1991; Sportiche 1988; Fukui 1986; Kitagawa 1986; Kuroda 1988) and undergoes A-movement to Spec-T (Miyagawa 1989, 2001, 2005; Kishimoto 2001) by testing the two types of NPIs in Japanese. This part will be briefly discussed in the next section.

As for the subject-verb agreement, this is not as clear in Korean as it appears in Spanish. In addition, one thing I want to clarify is that the Korean-T is not inflected if I do not consider the possibility of an absence of TP in Korean.

Finally, this section has shown the possibility that TP in Korean is absent or optional through coordination constructions and NegPs. Under these constructions, the role of T is not so clear in assigning the nominative case and the subject-verb agreement. The following table summarizes the properties of TP projection in Korean and Spanish described so far:

(73)

TP projection	Spanish	Korean
Position of subject	Spec-TP (Ā-position)	Spec-TP? (A-position?)
	Spec-vP (A-position)	Spec-vP (A-position)
subject-verb agreement	O	X
Tense feature	rich-tense morphemes (activated TP)	lack-tense morphemes (inert TP or absence)

In what follows, I would like to provide additional evidence in favor of 'no verb raising' that occurs, in particular in the negative sentence in Korean.

3.3.3 No verb raising or Neg-head raising in NegP *ani*

This section demonstrates how the inflectional morphology in terms of V-movement in negative sentences of Korean behaves in syntax. The negative sentence has two types of negation depending on the syntactic positions of the negative word *ani* (Eng. "not"): One type of negation refers to pre-verbal negation and the other type is post-verbal negation, as illustrated in (74):

(74) a. Mary-ga   ppang-eul   *ani*   meog-eoss-da.   (Korean)

   Y$_{-Nom}$ bread$_{-Acc}$ not   eat$_{-PST-DEC}$

   'Mary did not eat the bread.'

   b. Mary-ga   ppang-eul   meog-ji   *ani*   ha-ess-da.

   Y$_{-Nom}$ bread$_{-Acc}$ eat$_{-COMP}$ not   do$_{-PST-DEC}$

To be specific, the negator *ani* may either precede or follow the main verb; the former is in pre-verbal negation, as in (74a), and the latter is in post-verbal, as in (74b), respectively. In

the case of post-verbal negation, a kind of nominalizer *-ji* should be attached to the verb stem *meog-* (Eng. "eat"); and the dummy verb *ha* (Eng. "do"), which is attached with the inflectional morphemes, follows *ani*.

Interestingly, the extent to which the negative scope extends differs depending on whether *ani* precedes or follows the main verb. The scope in pre-verbal negation is only limited to the verb itself; however, the scope in post-verbal negation extends over the whole clause. In particular, it is conspicuous that the Neg-reading has different scope between preverbal and postverbal negative sentences when the quantifier *da* 'all' occurs in NegP:

(75) a. da   an(i)   o-ass-da

     all   not   come$_{\text{-PST-DEC}}$

  b. da   o-ji   ani   ha-ess-da

     all   come$_{\text{-COMP}}$ not   do$_{\text{-PST-DEC}}$

[from Han 1995: 361]

The preverbal negative sentence is only possible in the following interpretation:

(76) Nobody came

However, the postverbal negative sentence has the following two readings:

(77) a. Nobody came.

   b. Not everybody came.

If the postverbal negative sentence contains more constituents, then various interpretations are legitimated, since Neg takes the whole scope of the clause, unlike the preverbal negator, as illustrated in (78):

(78) a. Mary-neun   Barcelona-e   yeoleo-beon   *ani*   ga-ss-da.   (Korean)

       Top   to   several-times   not   go$_{\text{-PST-DEC}}$

   'Mary did not go to Barcelona several times.'

  b. Mary-neun   Barcelona-e   yeoleo-beon   ga-ji   *ani*   ha-ess-da.

   Top   to   several-times   go$_{\text{-COMP}}$ not   do$_{\text{-PST-DEC}}$

‘Mary did not go to Barcelona several times.’

(79) Possible interpretations

    a. It is several times that Mary did not go to Barcelona.

    b. It is not several times that Mary went to Barcelona.

    c. It is not Mary who went to Barcelona several times.

    d. It is not Barcelona where Mary went several times.

<div align="right">[adapted from Yoon 1990: 346]</div>

The pre-verbal negative sentence in (78a) allows only for the interpretation of (79a), whereas (78b), which is the post-verbal sentence, is possible for all four interpretations in (79). From a syntactic point of view, (78b) bearing such several different readings implies that *ani* is a syntactically independent head of NegP and is located higher than the verb. I provide the syntactic derivation-tree so as to understand well the difference between two types of negative sentences:
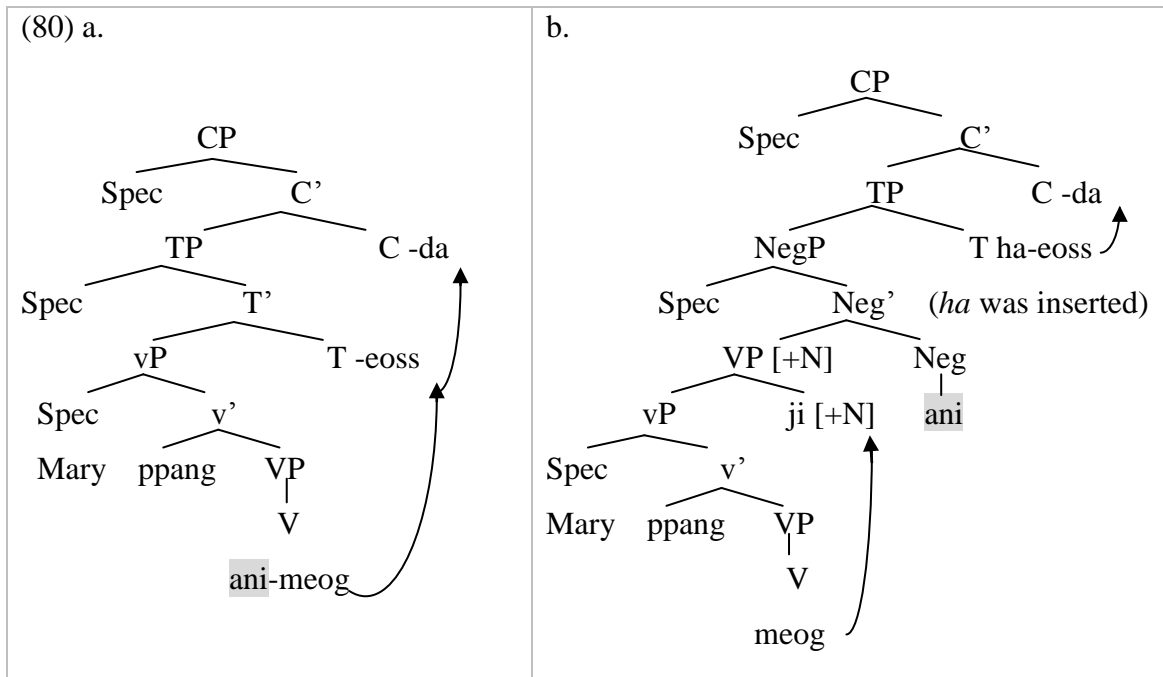
<div align="right">[from Yoon 1990:356, 359]</div>

Notice that the position of Neg captures its scope. Yoon (1990) suggests that the negator *ani,* in the pre-verbal negative is prefixed to the verb stem *-meog* (Eng. "eat"), whereas post-verbal negator *ani* acts as a head of NegP which is generated higher than the nominalized VP

<div align="center">117</div>

by *-ji*. Those structures show that the post-verbal negator holds the entire VP scope (against Han 1995: NegP does not exist). Therefore, in (80a), it is emphasized that 'Mary does not eat bread, and no other thing', since the lexical item *ppang* (Eng. "bread") is generated on the right of the negative complex verb *ani-meog* (Eng. "not eat"), which has only the scope of the object '*ppa*ng'. On the other hand, in (80b), it is highlighted in the action that 'Mary does not eat bread', since the scope of Neg is extended to the subject 'Mary'. Consequently, the nominalized verb *meog-ji*-raising, in the sentence that has Neg as a head, is blocked due to the head movement constraint: HMC (Travis 1984).

On the other hand, the fact that the negative element in Korean is extended to the scope of the subject is born out comparing with the data in English:

(81) a. John did not read any book.   (English)

    b. *Anyone did not read the book.

[from Kishimoto 2017:112]

The Negative Polarity Items (henceforth NPIs) in the negative sentences of English are not allowed in the subject position. Put another way, English displays a subject-object asymmetry with regard to NPIs, but the absence of a subject-object asymmetry in Korean means that negative scope ranges over the subject position, as shown in (82):

(82) a. John-i   amuleun chaeg-eul   illg-ji   ani ha-ess-da.   (Korean)

      J$_{-NOM}$ any   book$_{-ACC}$ read$_{-COMP}$ not do$_{-PST-DEC}$

   b. Amudo   chaeg-eul   ilg-ji   ani ha-ess-da.

      Anyone   book$_{-ACC}$ read$_{-COMP}$ not do$_{-PST-DEC}$

Unlike the NPI subject of English in (81b), the NPI of Korean can be licensed by Neg in the subject position, as in (82b). In this vein, Kishimoto (2017) focuses on the point of view that Neg-head raises to Spec-TP (and further to Fin in the case of copula construction in Japanese) under the condition of which NPI-subject is placed in Spec-TP. The relevant derivation is as follows:

(83) Japanese

    a. [$_{FinP}$ [$_{TP}$ [$_{NegP}$ [$_{vP}$ SUBJ OBJ V-v] Neg] T] Fin]

b. [FinP [TP SUBJ [NegP [vP   OBJ V-v] ~~Neg~~] ~~Neg T~~] NegT-Fin]

(84) English

[FinP [TP SUBJ T [NegP Neg [vP V-v OBJ]]]]

[from Kishimoto 2017: 113-114]

The empirical evidence that the NPI-subject is compelled to be in Spec-TP is shown in the aspectual constructions containing Neg. Thus, I would like to consider the possibility of subject raising (A-movement) like Japanese.

As illustrated above, Korean does not show the subject-object asymmetry with regard to NPIs in postverbal negative scope. Nevertheless, not all NPIs behave this way. The raising of nominative subjects gives rise to a subject-object asymmetry in the licensing of the NPI in the variant of aspectual constructions.

(85) a. *Saikin   <u>amari ooku-no   hito-ga</u>   hon-o   yoma-nai-de i-ru.   (Ja)
         recently very many-GEN man-NOM   book-ACC   read-No-GER be-PRS
         'Recently, very many people have not been reading books.'
    b. Saikin Ken-ga   <u>amari ooku-no   hon-o</u>   yoma-nai-de i-ru.
       recently, Ken-NOM   very many-GEN   book-ACC   read-NEG-GER be-PRS
       'Recently, Ken has not been reading very many books.'

[from Kishimoto 2017:118]

As can be seen in (85a), the NPI-subject cannot be licensed by the embedded negative verb *yoma-nai* (Eng."not read"). If the NPI-subject remains in vP-internal, it should be licensed by the embedded negative verb. By contrast, (85b) shows that the NPI marked object is in the scope of the embedded verb. As a result, it is born out that the position of the subject is outside the embedded negative scope. Nevertheless, this fact does not match with Korean:

(86) a. Choegeune   <u>geudajido   manheun salamdeul-i</u> chaeg-eul   ilg-ji   ani hago issda.   (Ko)
          recently   very   many   men-NOM   book-ACC read-COMP   NEG do   be-PRS
     b. Choegeune Ken-i   <u>geudajido manheun chaeg-eul</u>   ilg-ji   ani hago issda
        recently   Ken-NOM   very   many   book-ACC   read-COMP   NEG do   be-PRS

In light of this fact, the NPI-subject in Korean is licensed by the embedded negative verb, thus it can remain in vP-internal, not raising to Spec-T in this case. Contrary to this, the nominative subjects in Japanese undergo raising to the matrix Spec-TP, and the raising of nominative subjects gives rise to a subject-object asymmetry in the licensing of the NPI in the variant of aspectual constructions As a consequence, it can be postulated that the nominative case is marked in the vP-internal position in Korean.

As for the possibility of Neg-head raising, I agree with this idea because the negative morpheme can be attached to the main verb and copula 'be' in aspectual construction like in Japanese.

(87) a. [<u>V</u>-**Neg**-<u>be</u>]

    <u>ilg</u>-ji   **ani** ha-go   <u>iss</u>-da.   (Korean)

    read$_{\text{COMP}}$ Neg do$_{\text{CON}}$ be $_{\text{DEC}}$

    'has/have not been reading.'

  b. [<u>V</u>-<u>be</u>-**Neg**]

    <u>ilg</u>-go   <u>iss</u>-ji   **ani**   ha-da.

    read$_{\text{CON}}$ be$_{\text{COMP}}$ Neg do$_{\text{DEC}}$

    'has/have not been reading.'

To sum up, it seems that the NPI-subject in Korean does not undergo raising to Spec-TP based on the data negative scope in (86) comparing with Japanese (85). Furthermore, the possibility of a Neg-head raising is also considered (87).

In conclusion, the aim of this section was to consider how the verb-movement in Korean differs from that in Spanish. Also, as a subpart, we have discussed the possible position of the subject linked to TP projection. The intention of starting this discussion is due to the fact that there is a connection between the left periphery part and verb movement in Spanish as argued by Gallego (2010). According to this, it was also worth focusing on the verb patterns in Korean to investigate the correlation between the syntactic derivation of verbs and the left periphery. The given arguments lead us to the conclusion that verbs in Korean are not as active as in Spanish in syntax, but rather count as phrasal affixes in forming inflectional morphemes which trigger heavy remnant movement while eliminating their traces.

3.4 Conclusions

This chapter has mainly been dealt with the whole word-order of SOV from a syntactic point of view considering morphological properties. It has specifically focused on finding the evidence for the complement-head order starting from head-complement while adhering to strict Kayne's (1994) LCA. However, it was not easy to find a piece of plausible evidence for the left movement of complements, especially, in the larger unit [CP-V] order due to the strict constraint as pointed out by Julien (2002):

(88) Restrictions on syntax (after 1994)

    a. Nodes are binary branching or nonbranching.

    b. Asymmetric c-command maps into linear precedence.

    c. Syntactic movement is always to the left.

    d. Adjunction is always to the left.

<div align="right">[from Julien 2002: 36]</div>

We have shown that the behaviors of CPs and NPs in head initial languages are different according to Ormazabal, Uriagereka & Uribe-Etxebarria (1994). The [CP-V] ordering from [V-CP] base-order gives rise to wh-island constraints in the sub-extraction of wh-phrases since the CP in [CP-V] contains one more movement. Although we have suggested some alternatives such as bi-clause approach by being verified in parasitic gap constructions and uniformity chains, these do not give us straightforward accounts as the arguments of NPs's shift, i.e., adjacency. Thus, the lack of adjacency between verb and object in Korean was the most tenable. This leads me to the conclusion that the VP part, which is a small unit in syntax, is supposed to be a structure that reflects the LCA (not vP, TP or CP) in the case of Korean.

    We have also explored the general issues relevant for T, i.e., subject position, subject-verb agreement, and no verb raising by testing in coordination and negative constructions. This endeavor makes us postulate the possibility of inert-T in Korean, unlike Spanish, which has a relatively active-T. If we assume inert T in Korean, we can infer that the verb's behavior has nothing to do with the left periphery of sentences unlike Spanish and the subject in the [Spec-TP] may not be a subject that receives the structural nominative case. In our proposal, I will assume that the subject in the [SpecTP] is thematic topic marked by '-*neun*' and the subject in the [Spec-vP] is the real subject marked by '-ga/-i', which is structural nominative case marker.

Finally, we have considered three possibilities of verb movement patterns: (i) XP-movement as phrasal affixes, namely 'roll-up movement' (Koopman 2005, Kayne 1994), (ii) X-movement as an amalgamated form, which triggers the S-O movement and (iii) the verbal root in V merges with the inflectional morpheme (located in T, which is mapped to the right side of VP) in the PF component, as suggested by Takano 2004; Halle and Marantz 1993; Bobaljik 1994; Lasnik 1995.

Chapter 4

Left periphery in Korean and Spanish

4.1. Introduction

Chapter 1 outlined the basic assumptions of the so-called Cartographic Project (cf. Rizzi 1997 and sub.). As we saw, this line of research assumes that the CP layer is to be divided (splitted) in a series of functional projections that encode different types of information dealing with inflectional properties of verbs, clause typing, information structures, and modality. We will be assuming the template in (1) as the departing point of our investigations:

(1) [Force [Top* [Int [Top* [Foc [Top* [Mod [Top* [Q$_{emb}$ [Fin [$_{IP}$ . . .]]]]]]]]]]]]

[from Rizzi & Bocci 2015: 8]

As is argued in Rizzi (2015) as in (1), if the CP-area is a universal part, the functional heads in CP should have discourse-semantic effect in the pattern of cross-linguistic variation. As expected, in the case of Korean, the scrambled/fronted elements and topics appear in the left side but with special morphological markers (Abbreviations: NOM-Nominative, ACC-Accusative, D-Declarative, Op-Operator, TOP-Topic):

(2) a. Etteon chaeg$_i$-**eul**   Q/Foc/Op   [$_{TP}$ ne-ga   t$_i$ sa-ss-ni]]?   (Korean)

   Which book$_{-ACC}$ *you$_{-NOM}$*   *buy$_{-PST-Q}$*

   b. Geu chaeg$_i$-**eun**   TOP   [$_{TP}$ ne-ga   t$_i$ sa-ss-da]]

   The book$_{-TOP}$ *you$_{-NOM}$*   *buy$_{-PST-D}$*

   c. GEU CHAEG$_i$-**EUL**   FOC   [$_{TP}$ ne-ga   t$_i$ sa-ss-da]]

   The book$_{-ACC}$ *you$_{-NOM}$*   *buy-$_{PST-D}$.*

As is shown in (2), topic, focus, and *wh*-element can reside in the left periphery as in English and Spanish, however, bear in mind that *wh*-element in interrogative and focus are generally located in-situ, in Korean. Thus, if the elements were scrambled/ fronted to the left side from

in-situ, it means that the shifted elements have a different semantic effect, unlike in-situ object/*wh*-element, even though there is a claim that the scrambled elements are semantically vacant and are regarded as being base-generated as argued by Saito (1989) and Bošković & Takahasi (1998). The following are the elements that are assumed to postulate in the left margin in Korean based on the (2):

(3) The left peripheric elements (first version) in Korean:

    (i) Scrambled Object as a focus element

    (ii) Scrambled *wh*-object

    (iii) Topicalized *-neun* marked element

    (iv) Empty operator or Q-morpheme (Force markers)

On the other hand, the morpheme of forceP and FinP which is related to the verb part will be discussed. Given that the verb part is on the right side of a clause and informative elements such as topic and focus (scrambling/ wh) are placed on the left side, separately, it is difficult to assume that universal splitted CP, which Rizzi (1997 et seq.) advocate strongly, exist in head-final languages (i.e., in the case of Korean and Japanese). The possibility that the universal splitted CP part could also exist in Korean will be discussed on the basis of Saito's observation.

(4) The left peripheral elements distributed on both sides (left and right)   (Korean)

    b. Relative clause:

      […[…[…[… Fin *(-geos)*][Top* *(-eun)*] Force *(-aninga)*] Report *(-hago)*]

<div align="right">[adapted from Saito 2010:16]</div>

(5) The left peripheral elements located on the left side   (Spanish)

    b. Relative clause:

      [Force [Top* [Foc [Top* [Fin [$_{IP}$ . . .]]]]]]

      que(that)   *de(for)*

<div align="right">[from Brucart & Hernanz 2015: 92]</div>

Based on the above-mentioned matters, this chapter introduces the phenomenon that can be analyzed to the left periphery in Korean and Spanish. That is, scrambling, in-situ focus/wh, '-

neun' maked topics in Korean as well as Wh-movement Hanig Topic, CLLD, and foclization in Spanish will be introduced. In doing so, I attempt to find some similarities between the two languages in terms of left periphery. I will present the fact that Korean the dropped '-neun' topics are pararell to HT in Spanish. In addition, there is a discussion as to whether there exist a constraints when several peripheral elements appear. Finally, relevant data is provided on whether the sandwiched Force-Fin system found in many Romance languages, can be applied to Korean. I will discuss it capitalizing on Saito's (2010) observation.

This chapter is organized as follows. In the next section, I present the phenomena of the *wh*-movement and the *wh*-in-situ focusing on English, Spanish and Korean. This discussion will be the basic concept and data of the analysis to be applied within different parameters. Section 4..2. deals with the phenomena, the traditional approaches and the properties of wh-movement and wh-in-situ. 4.3. provide some basic notion of scrambling. 4.4. discusses Topicalization in Spanish and Korean focusing on a special marker *-(n)eun,* which is an important measure for expressing the information structure, and 4.4..2 briefly revies the focalization in two languages. In section 4.5, I examine the restrictions in co-appearing informative constituents such as the elements of scramling, topic, and focus or multiple topic and focus. Section 4.6 explores the projections of Force, Fin, and Modality that have relevance for the verb. Moreover, according to Rizzi's (1997) splitted-CP in *Cartographic Project*, I put forward the possibility of adjacency of Topic-Focus within Force-Fin system, based on Saito (2010)'s sense. Finally, the discussions that have been addressed in this chapter are summarized in section 5.7.

4.2. wh-movement vs. wh-in-situ

As stated at the outset of this chapter, we briefly have studied on which elements are located on the left periphery of a clause. In particular, among them, *wh*-expressions has been representatively analyzed as a result of the *wh*-movement operation to the Specifier (Spec) of Complementizer (Comp) position in which the interrogative nature of a clause is specified.

(6) [$_{CP}$ What$_i$ [$_C$ did   [$_{IP}$ John see t$_i$]]   (English)

In the interrogations of English, the wh-movement, as well as the auxiliary inversion, are observed. The obligatory movement of wh-expressions is generally assumed by postulating a relation between the head C of CP, where the inverted auxiliary is placed, and wh-word,

rather than the base-generation approach. In the case of Spanish, like in English, the subject-verb inversion is observed and the movement operation is applied to wh-expressions as the obligatory dependency.

(7) a. ¿A quién visitó Juan?   (Spanish)

      Whom visited Juan

  b. *¿A quién Juan visitó?

      Whom Juan visited

[from Ordóñez 2000:115 (1)]

As is well known, however, in some languages, interrogative clauses are expressed as *wh-*phrases being realized in the canonical position without wh-word order changing to the Spec of Comp, which is referred to as *wh*-in-situ in the generative grammar. Typically, this wh-in-situ phenomenon, which is no overt wh-movement, is known to display in Korean, Japanese and Chinese. The canonical word order is SOV in Korean and Japanese, but Chinese is SVO language as illustrated in (8):

(8) a. Húfěi   mǎi-le   *shénme*   (Chinese: SVO)

      Hufei   *buy- PERF*   *what*

   'What did Hufei buy?'

  b. John-i   *mueos*-eul   sa-ss-ni?   (Korean: SOV)

     John-NOM   *what-ACC*   *buy-PST-Q*

   'What did John buy?'

  c. John-ga   *nani*-o   kat-ta-no?   (Japanese: SOV)

     John-NOM   *what-ACC*   *buy-PST-Q*

   'What did John buy?'

Although these languages display wh-in-situ phenomena, wh-expressions can be placed in the initial position as in English type languages.

(9) a. *mueos*-eul   John-i   sa-ss-ni?   (Korean)

     what-ACC   *John-NOM*   *buy-PST-Q*

  b. *nani*-o   John-ga   kat-ta-no?   (Japanese)

what-ACC　　　　　*John-NOM*　　　*buy-PST-Q*

The initially positioned wh-words in a clause correspond to *scrambling* in these languages rather than the operation of wh-movement since the proposed wh-expressions are optional, not obligatory. Furthermore, two types of approaches have been generally suggested for this: base-generation and optional movement. The reason that the base-generation approach is assumed is that the wh-elements can easily appear in the initial position in Korean and Japanese, but in the case of English, that case is taken as an ungrammatical sentence.

(10) a. *Which book$_i$ does Boll wonder [$_{CP}$ [$_{TP}$ she read　t_i]]?　　　　(English)

　　 b. *Who did you say [$_{CP}$ that　t_i　met　Kim]?

(11) a. etteon chaeg-eul$_i$　 Bill-eun [$_{CP}$ geunyeo-ga　 t_i　ilgeossneun-ji] gunggeumhaeha-ni?

　　　　which problem-ACC　　　*Bill-TOP*　　　*she-NOM*　　　　*read-COMP*　　　*wonder-Q*　　(Korean)

　　 b. nugu-ga$_i$　 neo-neun [$_{CP}$　t_i　Kim-eul manassda-go]　 malhaess-ni?

　　　　who-NOM　　　*you-TOP*　　　　　*Kim-ACC*　　*met-that*　　*said-Q*

The restriction on the appearance of wh-elements implies (i.e., wh-island constraints) that the interrogations of wh-movement languages are driven by a movement of wh-elements. Whether scrambling is driven from the base-generation or a movement will be addressed in the next chapter.

　　In natural languages, there are cases of multiple interrogatives which contain two or more different wh-expressions. In the case of English, a wh-element of them should be in place (in-situ[67]). In other words, the movement of the farthest one of the two wh-elements is blocked. This is generally referred to as *Superiority effect*.

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[67] The *wh*-in situ also appears in *wh*-movement languages as in English but in this case, *wh*-words require a prosodic intonation and have a special meaning. This is referred to as 'Echo questions' as illustrated in (i):

　(i) Totoro takes WHAT?

Semantically, this is not the same as (4b).

(12) *Superiority effect*[68]

   a. Who read what?   (English)

   b. *what did who read   *t* ?

However, such a "superiority effect" does not arise in Spanish, even though this language belongs to the wh-movement language like English.

(13) a. ¿Quién compró qué?   (Spanish)

      who   bought   what?

   b. ¿Qué$_i$ compró[69] quién t$_i$?

      what   bought   who

The fact that the superiority effect in multiple wh of Spanish does not show is identical in Korean.

(14) a. nu-ga   mueos-eul   sass-ni?   (Korean)

     who-NOM   what-ACC   bought-Q

   b. mueos-eul   nu-ga   *t*   sass-ni?

     what-ACC   who-NOM   bought-Q

One thing to note is that the wh-words of the representative wh-in-situ languages are interpreted as a quantifier (or indefinite pronouns). I put here the summarized *wh*-words of Korean, Japanese and Chinese for quantifiers meaning (Symbols of quantifiers: existential ∃ / universal ∀):

(15)

As *Wh-* words	Korean (∃/∀)	Chinese (∀)	Japanese (∃/∀)	As quantifiers (∃/∀)

---

who	nugu(-inga)/-do	shei	dare-ka/-mo	somebody/ anybody
what	mueos(-inga)/-do	sheme	nani-ka/nan-mo	something/ anything/
which	eotteun(-geosdo)	na	nan-demo	any
when	eonje(-lado)	heshi	itsu-demo	any time
where	eodi(-do)	nail	doko-demo	any place

[adapted from Huang 1982:241; Bosque 2015:319]

Due to the *wh*-word as quantifiers or indefinite pronouns meaning base, it induces an ambiguity[70] as to whether it implies 'what' or 'something':

(16) a. John-i   **nugu**-leul   bo-ass-**ni**?   (Korean)

     John-NOM   *who-ACC*   *see-PST-Q?*

  b. who is the person *x* such that John saw *x*. →'Who did John see?'

  c. for which (x), x a person, John saw x. → 'Did John see someone?'

Focusing on Korean (including Japanese), the particle *–inga*, as shown in (15), not only plays a role as the quantifier but also can be omitted. If *–inga* is attached to the wh-NP *nugu-*,

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[70] In the case of Korean, this ambiguity can be obvious depending on where is fallen the focal stress on which of two elements ('what' and 'accusative case marker') together with the intonational difference on the complementizer *-ni* (Question particle):

(i) A: Totoro-ga   May-ege   *mueos*-[EUL]   jueoss-**ni**? [↘]   interrogation

    '**What** did Totoro give to May?'

  B: Totoro-ga   May-ege   dotori-leul   jueoss-da

    Totoro-NOM   *May-DAT*   *acorn-ACC*   *gave-D*

    'Totoro gave the acorn to May.'

(ii) A: Totoro-ga   May-ege   [*MUEOS*]-eul   jueoss-**ni**? [↗]   yes/no question

    'Did Totoro give **something** to May?'

  B: Eung, Totoro-ga May-ege dotori-leul   jueoss-da.

    'Yes, Totoro gave the acron to May.'

(i) is a normal *wh*-expression as in English, while in (ii), the *wh*-word '*mueos*' (Eng. *what*) is interpreted as 'something' that yields the "yes/no question"-type clause.

the *who-inga* can only be interpreted as 'someone' that yields the "yes/no question"-type clause as in (17b). Since the fact that the quantifier particle can be omitted, a *wh*-word itself can be regarded as a *quantifier* and induce an ambiguity in a similar line with Pesetsky (1987):

(17) John-i   **nugu(-inga)**-leul   bo-ass**-ni**?   (Korean)

    John-NOM   who-(some/ever)-ACC   see-PST-Q?

    a. who is the person *x* such that John saw *x*. →'**Who** did John see?'

    b. for which (x), x a person, John saw x. → 'Did John see **someone**?

However, the attached *-inga* (Eng. *some/ever*) to *nugu* (Eng. *who*) involves only the meaning of *someone* yielding the "yes/no" question-type clause.

(18) John-i   **nugu-inga**-leul   bo-ass**-ni**?   (Korean)

    John-NOM   who—some/ever-ACC   see-PST-Q?

    a. #'**Who** did John see?'

    b. 'Did John see **someone**?

   Contrary to Korean and Japanese, in the case of Mandarin Chinese, since it does not have particle corresponding to *–inga* in Korean, the adverb '*dou*' (Eng. *all*), which plays a role as the universal quantifier, saves the interpretive ambiguity, as in (20):

(19) ta   bu   xiang   chi   **sheme** (?)   (Mandarin Chinese)

    he   not   want   eat   what/anything

    a. 'What didn't he want to eat?'

    b. 'He didn't want to eat anything.'

(20) **shei**   *__dou__*   xihuan ta.   (Mandarin Chinese)

    who/anyone   all   like   he

    'Everyone likes him.'

[from Huang 1982: 242-244]

As shown in (19), *wh*-words give rise to 'ambiguous reading' as shown in Korean. The *wh*-words become clearer as 'something/ anything' which refers to the term negative/positive

indefinite and negative polarity when they only occur in the domain of the universal quantifier 'all' (Chi.*dou*) as in (20). In English, the possibility that wh-words can be also interpreted in a different meaning as quantifier has been suggested by Chomsky (1977).

(21) a. *who* did John see?   (English)

    b. for which (*x*), *x* a person, John saw *x*.

<div align="right">[from Chomsky 1977: 83]</div>

According to Chomsky (1977), by the interpretive rule, the meaning of quantifiers is guaranteed at the level Logical Form (LF, henceforth) and the rule giving the meaning of quantifiers introduces the variable. Thus, it is considered that the *variable* is the (terminal) symbol of LF (as his terminology). In Korean, it is expected that the wh-word does not need to postulate the LF-movement to function as a variable. This is because the wh-words can serve as a variable by virtue of a particle system like –*inga* (Eng. some) with the meaning of a quantifier and a phonological difference. The LF movement in terms of wh-word will be discussed in detail in the next chapter.

    One of another property that is observed in the wh-in-situ language is that Q-morpheme is found. As discussed earlier, we confirmed that the wh-word itself can be interpreted as an indefinite pronoun (or quantifier) and hence, can play a role as a variable of the wh-elements. In the following sentence, it is observed that enables the practically questionable function is Q-morpheme rather than wh-element.

(22) a. Totoro-ga   May-ege   *mueos*-eul   jueoss-**da.**   *'declarative'*

        Totoro-NOM   *May*-DAT   *some*-ACC   *gave*-D

    'Totoro gave **something** to May' / #'**What** did Totoro give to May?'

    b. Totoro-ga   May-ege   *mueos*-eul   jueoss-**ni**?   *'interrogative'*

        Totoro-NOM   *May*-DAT   *what/some*-ACC   *gave*-Q

    '**What** did Totoro give to May?' / 'Did Totoro give **something** to May?

We have confirmed in chapter 3 and 4 that the verbs in Korean should end with a morpheme that acts as an illocutive force to show whether a sentence is interrogative, exclamative or declarative. As shown in (22a) and (22b), in the sentence ending in the declarative morpheme

-da the wh-element can only be interpreted as an indefinite pronoun, not as an interrogation, while in the sentence ending in the questionable morpheme *-ni*, it can play a role as the interrogative element. Thus, we can infer that the Q-particle in C holds [+wh] feature, rather wh-word itself.

Cheng (1991, 1997) defines these morphemes of *illocutive force* as the clausal type[71], in which every clause should be typed. In Chomsky (1995), this information is referred to as the specification of Force. Adopting this, in the *cartography* of Rizzi (1977), it is highlighted in C system that Force-part in C is expressed by overt morphological encoding on the head. This approach allows us to have a point of view that the syntactic operations give the semantic effects of clauses rather than morphological functions. We will discuss the analysis of wh-movement and wh-in-situ phenomena with various parameter settings such as syntax, morphology, and phonology in the next chapter. In what follows, we will discuss the traditional approach and the basic data of scrambling, which is the phenomenon that an element seems to undergo the left movement.

4.3. Scrambling and Hale's Configurationality Parameter

This section is devoted to exploring the whole types of scrambling and its nature that appear particularly in Korean through a wide range of previous studies. *Scrambling* is the term refers to the phenomenon that exhibits free word order variations in natural languages. Ross (1967) is the first generative syntactician who applies this term to languages that permit optional word order variations such as German, Latin, and Russian, among many others. The term *scrambling* was defined as a stylistic component in grammar by Ross (1967), then Hale (1980, 1983) tried to the theoretical approach of *scrambling* with *configurational parameter*. Since then, more in-depth studies in different ways have been concentrated on finding the nature of scrambling by many researchers such as Saito (1985), Hoji (1985) and Mahajan (1990), among many others. Although there are some micro-variations between Korean and Japanese, Korean has the same flexible ordering as Japanese, as seen in (23):

(23) a. Totoro-ga **dotori-leul** gajyeoga-n-da. [canonical order: S<u>O</u>V]

 Totoro_{-NOM} acorn_{-ACC} takes_{-PRS-D}

---

[71] Clausal Typing Hypothesis (Cheng 1997:22)

Every clause needs to be typed. In the case of typing a wh-question, either a wh-particle in C^0 is used or else frongting of a wh-word to the Spec of C^0 is used, thereby typing a clause through C^0 by Spec-head agreement.

‘Totoro takes an acorn.’

b. **Dotori-leul**   Totoro-ga   gajyeoga-n-da.   [object scramblilng: OSV]

Acorn_{-ACC}   *Totoro_{-NOM}*   *takes_{-PRS-D}*

‘Totoro takes an acorn.’

As will be discussed later, Korean allows scrambling of various constituents not only within a clause but also across a clausal boundary. The possible types of constituents in scrambling are the object as well as other types of phrases, for instance, the subject, the indirect object, clausal arguments, and certain type of adjuncts. In this sense, the term *scrambling* may be more suitable than the term *object shift* for the example (23b)[72]. As for another property in scrambling, as in (23b), there is no change in the case marker *-leul*[73] attached to NP *Dotori*.

As alluded above, *scrambling* that any element can appear in the non-canonical position can be associated with the Hale (1983)'s the non-configurational notion, in which points out the two main properties: (i) free word order, (ii) discontinuous constituency.

(24) a. X' $\rightarrow$ X'* X

---

[72] I would like to point out that *Object Shift* in Spanish and *Object-Scrambling* in Korean may have some difference in terms of the syntactic operation. As discussed in the previous chapter, an OS in Spanish may be affected by verb movement (e.g., v*-T movement) yielding VOS and VSO. In the case of Korean, verb movement may be absence in syntax (i.e., in PF) or even if verbs undergone movement, it would not materially affect NPs (subjects or objects), unlike in Spanish. This assumption suggests that the verb should be constantly in the final position of a sentence but objects or subjects (or other types of phrases) are scrambled.

[73] In the case of topialization in Korean (including Japanese), topicalized NPs should be attached by the topic marker *-(n)eun* in the initial position of a clause. That is to say, there is a categoric change when NPs change their position to receive a topic interpretation.

(i) Nu-ga   **dotori-leul**   gajyeoga-ni?.   [canonical order: SOV]

who_{-NOM}   *acorn_{-ACC}*   *takes_{--Q}*

‘Who does take an acorn?’

(ii) **Dotori-neun**   Totoro-ga   gajyeoga-n-da.   [topicalization: OSV]

Acorn_{-TOP}   *Totoro_{-NOM}*   *takes_{-PRS-D}*
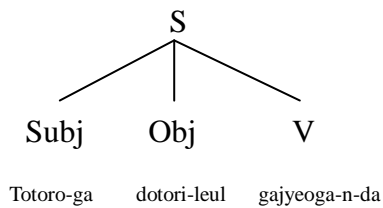
‘As for the acorn, Totoro takes it.’

As will be discussed later, Korean exhibits the word order changing in topicalization as in scrambling but the leftward moved element accompanies the topic marker *-(n)eun,* unlike scrambled object.
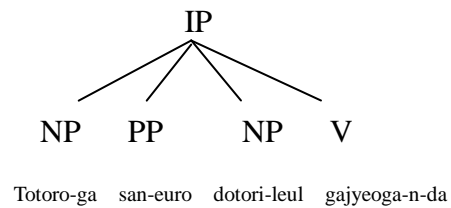
b. N' (=NP) P' (=PP) N'(=NP) V

The formula in (24) shows that scrambling languages like Korean (and Japnese) are head-final. That is to say, [x] means a head, [x*'] denotes any number of xs and their flexibility. Hale (1980) attempted to distinguish scrambling and non-scrambling languages by providing theoretical account such as *Configurationality Parameter*. Under this approach, configurational languages hold a hierarchical structure formed by establishing asymmetric relation between phrases, while non-configurational languages take a flat structure whereby all phrases have a symmetric relation with the head.

(25) *non-configurational flat structure*

a.

```
          S
        / | \
    Subj  Obj  V
```
Totoro-ga dotori-leul gajyeoga-n-da

b.

```
          IP
       / /  \  \
     NP PP  NP  V
```
Totoro-ga san-euro dotori-leul gajyeoga-n-da

[adapted from Saito 1985: 24-27]

a. Totoro-ga dotori-leul gajyeoga-n-da

  Totoro-NOM   acorn-ACC   takes-PRS-D

 'Totoro takes an acorn.'

b. Totoro-ga san-euro dotori-leul gajyeoga-n-da

  Totoro-NOM   mountain-to   acorn-ACC   takes-PRS-D

 'Totoro takes an acorn to the mountain.'

According to Hale's proposals, scrambled orderings are driven from free base-generation in syntax and no movement is involved. The considerable data, however, have been provided as pieces of evidence that scrambling in Korean and Japanese (Choe 1985 for Korean, Saito and Hoji 1985, Saito 1985, Whitman 1987 for Japanese) has some regular constraints such as binding scope and weak cross over in terms of movement operations in syntax.

In the forthcoming section, we will briefly review the types of scrambling in Korean based on the aforementioned backgrounds.

4.3.1. Types of Scrambling and word order

It is generally assumed that scrambling can be classified into three types depending on the length of dependency: (i) clause-internal scrambling, (ii) clause-external (long-distance) scrambling, and (iii) VP-internal (short) scrambling. Phrasal scrambling that a phrasal unit like CPs can appear in the leftward of a clause is also presented in some studies (cf. Kwon 2010). In Ko (2017), the scrambling data for Korean based on the classification just mentioned above is well summarized. In this section, on the basis of the Ko's (2007, 2017) discussions, the data corresponding to each type of scramblings is briefly introduced here and other types of scrambling are also added.

At first, scrambling can be observed both locally and long-distance, the former is clausal-internal scrambling as in (26) and the latter is called clause-external (long-distance) scrambling as in (27) according to Saito (1985)'s terminology.

(26) Clause-internal scrambling (direct object)

    a. Totoro-ga   **dotori-leul**   gajyeoga-n-da.

       Totoro-NOM   *acorn-ACC*   *takes-PRS-D*

      'Totoro takes an acorn.'

    b. **Dotori-leul**   Totoro-ga   gajyeoga-n-da.

       Acorn-ACC   *Totoro-NOM*   *takes-PRS-D*

       'Totoro takes an acorn.'

(27) Clause-external scrambling (in/direct object)

    a. Bill-i   [Totoro-ga *dotori-leul May-ege* [jueossda]-go] malhaessda.

       Bill-NOM   *Totoro-NOM*   *acorn-ACC*   *Mary-DAT*   *gave*   *that*   *said*

     'Bill said that Totoro gives the acorn to May.'

    b. **May-ege$_k$**   dotori-leul$_i$ [Bill-i [Totoro-ga t_i t_k [jueossda]-go] malhaessda.

    c. Dotori-leul$_i$ **May-ege$_k$**   [Bill-i [Totoro- ga t_i t_k [jueossda]-go] malhaessda.

The following is the case VP-internal scrambling. In the VP-internal scrambling, it is the structure that an indirect object element is involved as illustrated in (28). The possible

number of cases in word orderings are 6 among 3 elements: the subject, the direct object, and the indirect object, except the verb because it remains in the final position in any case.

(28) VP-internal scrambling (indirect object)

a. **Totoro-ga** *dotori-leul* *May-ege* ju-eoss-da. (S DO IO V)

    Totoro-NOM   *acorn-ACC*   *Mary-DAT*   *give-PST-D*

    'Totoro gave the acron to May.'

b. **Totoro-ga** *May-ege* *dotori-leul* ju-eoss-da. (S IO DO V)

c. *Dotori-leul* **Totoro-ga** *May-ege* ju-eoss-da. (<u>DO</u> S IO V)

d. *Dotori-leul* *May-ege* **Totoro-ga** ju-eoss-da. (<u>DO</u> IO S V)

e. *May-ege* **Totoro-ga** *Dotori-leul* ju-eoss-da. (IO S DO V)

f. *May-ege* *Dotori-leul* **Totoro-ga** ju-eoss-da. (IO DO S V)

Addition to this, PPs can be scrambled to the initial sentence position as in (29e) and (29f) and the possible number of word orderings among three flexible elements are also 6 cases under the factorial calculation.

(29) PP scrambling

a. **Totoro-ga** *dotori-leul* *san-euro* gajyeoga-n-da. (S DO PP V)

    Totoro-NOM   *acorn-ACC*   *mountain-to*   *takes-PRS-D*

    'Totoro takes an acorn to the mountain.'

b. **Totoro-ga** *san-euro* *dotori-leul* gajyeoga-n-da. (S PP DO V)

c. *Dotori-leul* **Totoro-ga** *san-euro* gajyeoga-n-da. (DO S PP V)

d. *Dotori-leul* *san-euro* **Totoro-ga** gajyeoga-n-da. (DO PP S V)

e. *San-euro* **Totoro-ga** *dotori-leul* gajyeoga-n-da. (<u>PP</u> S DO V)

f. *San-euro* *dotori-leul* **Totoro-ga** gajyeoga-n-da. (<u>PP</u> DO S V)

In Korean, the case of scrambling across a topic is also regarded as the clause-internal scrambling but it is degraded in grammaticality than the case of scrambling across a subject (see J. Cho and O. Kim (2002) for the discussions of the difference between scrambling across a topic and a subject). To my ear, otherwise, the *-neun* (topic) marked NP *Totoro-neun* can be interpreted as a *contrastive focus* since it occurs in the second position.

(30) Scrambling across a topic

    a. Totoro-neun   dotori-leul   gajyeoga-ss-da.

        Totoro-TOP   *acorn-ACC*   *take-PST-D*

    b. ?Dotori-leul   Totoro-**neun**   gajyeoga-ss-da.

        acorn-ACC   *Totoro-*TOP/CF*   *take-PST-D*

    Contrastive focus interpretation:

    'Only Totoro took the acorn, but other animals did not took it.' .'

It means that when topic appear in-situ with focused elements, it is interpreted as contrastive focus not a topic. This can be regarded that topic does not follow scrambling in Korean. I will discuss the restrictions of co-appearance among them in section 4.5.

    Moreover, scrambling can occur in classifier NPs, but there is an asymmetry between the object and the subject as illustrated in (31a)-(32b):

(31) Scrambling in number classifier NPs

    a. Dotori-leul$_i$ Totoro-ga t_i se-gae   gajyeoga-ss-da.

        Acorn-ACC   *Totoro-NOM*   *3-Cl(object)*   *take-PST-D.*

        'Totoro took three acorns.'

    b. *Totoro-deul-i$_2$ dotori-leul$_1$ t_2 se-mari t_1 gajyeoga-ss-da.

        Totoro-Pl-NOM   *acorn-ACC*   *3-Cl(animal)*   *take-PST-D.*

        'Three Totoro took the acorns.'

    c. ?Totoro-deul-i$_1$ *eoje* t_1 se-mari   dotori-leul   gajyeoga-ss-da.

        Totoro-Pl-NOM   *yesterday*   *3-Cl(animal)*   *acorn-ACC*   *take-PST-D.*

        [adapted from Ko 2007:50 (1)-(2); cf. Saito 1985:52 (39) for Japanese]

(31a) and (32b) show that there is a constraint in subject scrambling than object scrambling as argued by Saito (1985:51). Contrary to this, Ko (2005a, 2007), however, provides the possibility that the subject in Korean and Japanese may indeed undergo movement over *v*P-external high adverbs *eoje* (Eng. *yesterday*) as in (31c) and this means that the subject scrambling is the product of the movement, not base-generation. To my ear, this sentence seems a bit degraded, but it is not entirely ungrammatical. However, I agree with Ko's (2007,

2017) suggestion, since the grammaticality of (31c) where the subject moves over the adverb is much more improved than (31b).

Now, let us consider the scrambling in the case of long-length dependency. (32b) - (32c) is the typical long-distance scrambling cases, which the direct object or the indirect object can occur across a clausal-boundary:

(32) Clause-external (long distance) scrambling

    a. Bill-i   [Totoro-ga   *dotori-leul* *May-ege*   [jueossda]-go] malhaessda.

       Bill-NOM   *Totoro-NOM*   *acorn-ACC*   *Mary-DAT*   *gave*   *that*   *said*

     'Bill said that Totoro gives the acorn to May.'

    b. **May-ege$_k$**   dotori-leul$_i$ [Bill-i [Totoro-ga t_i t_k [jueossda]-go] malhaessda.

    c. Dotori-leul$_i$ **May-ege$_k$**   [Bill-i [Totoro- ga t_i t_k [jueossda]-go] malhaessda.

Another property of scrambling, in the relative classical type, is that the entire embedded clause can be scrambled as in (33b):

(33) Clausal scrambling

    a. Bill-i **[Totoro-ga**   *dotori-leul*   *May-ege*   **[jueoss]-neunji]**   muleossda.

       B.-NOM   *T.-NOM*   *acron-ACC*   *M.-DAT*   *gave-whether*   *asked.*

     'Bill asked whether Totoro gave the acorn to May.'

    b. **[Totoro-ga** *dotori-leul* *May-ege*   **[jueoss]-neunji]** Bill-i *t*   muleossda.

    c. *dotori-leul$_i$* [Totoro-ga t_i *May-ege* [jueoss]-neunji] Bill-i *t*   muleossda.

    d. *May-ege$_k$*   [Totoro-ga *dotori-leul* t_k [jueoss]-neunji] Bill-i *t* muleossda.

    e. *dotori-leul$_i$* *May-ege$_k$* [Totoro-ga t_i t_k [jueoss]-neunji] Bill-i *t* muleossda.

     …

                             [adapted from Kwon 2010: 232-234]

(34b) shows that the subject can readily scrambled over the clause-boundary as the (in)object can do:

(34) Subject scrambling

    a. Na-neun   [May-ga   Totoro-leul   mannassda]-go] saeng-gaghan-da

       I-TOP   *May-NOM*   *Totoro-ACC*   *met-that*   *think-D*

'I think that May met Totoro.'

b. May-ga$_i$ Na-neun   [t_i Totoro-leul   mannassda]-go] saeng-gaghan-da

    May-NOM   *I-TOP*   *Totoro-ACC*   *met-that*   *think-D*

'May$_i$, I think that t_i met Totoro.'

[adapted from Ko 2007:52 (4)]

As a consequence, scrambling in Korean whether or not it occurs in clause-boundaries allows almost lexical or phrasal structures so that exhibits the non-configurational nature. The presented scrambling data may lead us to the judgment that the scrambling-form comes from base-generation, which cannot be considered as a result of the inner-syntactic operation. However, many linguistic studies of Korean and Japanese have reported that scrambling shows movement constraints. This will be discussed in detail in the next chapter whether scrambling is derived from syntactic constraints or other operations are subject to.

4.4. The basic notion of topicalization and focalization

As is well known, topicalization and focalization are traditionally defined as follows: (i) when the information is newly presented between the speaker and the listener in the discourse, it is referred to as '**new information', 'rheme' or 'focus'** and (ii) when the information is already familiar or shared between them through the previous discourse, it is referred to as **'old information', theme', or 'topic'**. The structure to which the Topic and Focus belong is called '**Information Structure**'. In particular, in the case of Romance languages, when informational constituents i.e., topic and focus appear at the same time, they appear the hierarchical relationship in one sentence, as shown in (35) and (36):

(35) A: ¿Qué hizo José?   (Spanish)

      what did José

    'What did José do?'

  B: [TOPIC José] [FOCUS fue a casa]

        José   went to home

(36) A: ¿Quién comió las fresas?

     who   ate   the strawberries

  B: [TOPIC Las fresas, las comí] [FOCUS yo]

   [the strawberries, CL-3.pl. ate-1.person][I]

'As for the strawberries, I ate it.'

The Korean version corresponding to (36) is also equivalent to Spanish, as illustrated in (37):

(37) A: Nu-ga   ttalgi-leul   meog-eoss-ni?   (Korean)

        who-NOM   strawberry-ACC   eat-PST-Q

    B: ttalgi-**neun**   nae-**ga**   meog-eoss-da.

        strawberry-TOP   I-NOM   eat-PST-DEC

    B': *nae-**ga**   ttalgi-**neun**   meog-eoss-da.

As shown in (37B), the shared information *ttalgi-neun* (Eng. strawberry-Top) by the previous context is in the initial position and the new information *nae-ga* (Eng. I-Nom) follows the topicalized constituent. This shows that Korean also requires a topic-focus order, like Spanish. If the topicalized element follows the focus, it is not acceptable as the correct answer. Thus, it can be realized that Topic is forced to posit in the initial or the leftmost of a sentence. The only difference between Korean and Spanish is conspicuous by topic marker *-neun* in bold letter. As for the focus marker, it is well known that the case markers *(-i/ga* for nominative and *-(l)eul* for accusative) play generally a role as a focus marker in Korean.

In the literature, there are two main streams of the syntactic dependencies for the information structure: (i) the approach to the around of a phase-head of Chomsky (2000 and subsequent work), and (ii) the approach to *cartography*, which CP field is split in Rizzi (1997)'s work. In order to receive a certain interpretation, the movement of constituent under phase theory (Chomsky 2000, 2001) can be triggered by EPP (Extended Projection Principle) feature to the edge of the vP-phase position. On the other hand, under the *cartography approach*, the topic and focus features cause the movement to the Spec-TopP and FocusP in the splitted-CP. In addition to this, the prosodic reasons can trigger p-movement as well as scrambling (Reinhart 1995; Neeleman and Reinhart 1997; Zubizarreta 1998).

So far, we have briefly examined the basic definition and the traditional syntactic analysis for topics and focus. In what follows, topicalization and focalization in Korean are discussed in turn, comparing to Spanish for giving the cross-linguistic viewpoint.

4.4.1. Topicalization

This section discusses Topic Phenomena between Korean and other languages (in particular, focusing on Spanish data). In general, Korean (and Japanese) are well known as free word order languages, unlike fixed word order languages such as English. In the case of Korean, this phenomenon can be analyzed by virtue of 'particles' or 'syntactic position', as well as there are considerable suggestions that it is caused by phonological reasons. In this connection, I would like to not only focus on its syntactic domain but also morphological approach (or phonological as well if necessary) since there is a correlation between them for this phenomena in Korean. As for the several approaches to topicalization, we will deal with this issue within parameters of variation in the next chapter. In what follows, let us explore Clitic Left Dislocation and Haing Topic, which are typical topicalization in Spanish, and also briefly review the Korean data that corresponds to two types of topic in Spanish.

4.4.1.1. HT and CLLD in Spanish and Korean

In Romance languages, when the dislocated element is a/an (direct or indirect) object, it is generally referred to as two types depending on whether clitics appear in root clause: CLLD (Clitic Left Dislocation) and HT (Hanging Topic Left Dislocation). This peculiar phenomenon in which clitics appear as an anaphora is the representative property in Romance languages (Cinque 1983; 1997; 1990). Semantically, the dislocated constituents are taken to be topic interpretations or focus depending on the conceptual definition of them. The following is the examples of CLLD and HTLD:

(38) CLLD   (Spanish)

    a. A María, no la vi nunca (*a esa chica) tan enfadada.

     'To Maria, I never saw (to that girl) so angry.'

    b. A María, no le enviaré ningún paquete.

     'To Maria, I won't send (her) a package.'

    c. De Juan, no me acuerdo.

     'About John, I don't remember.'

(39) HTLD   (Spanish)

  a. (*A) María, no vi nunca a esa chica tan enfadada.

  b. (*A) María, no le enviaré ningún paquete.

  c. (*De) Juan, no me acuerdo de él.

In CLLD (29a-c), it turns out that the dislocated constituent is obligatorily resumed by clitic accompanying preposition and not allow it to be resumed by an epithet as in (38a). Contrary to CLLD, in the case of HTLD (39a-c), a dislocated constituent cannot be marked by preposition, but it can be substituted by a strong pronoun and an epithet as shown in (38a). This HTLDed constituent can be expressed in terms of a topic while being led by expressions such as '*en cuanto a* (Eng. as for), *con respecto a* (Eng. with respect to), *por lo que respecta a* (Eng. with regard to), *hablando de* (Eng. Speaking of)', as shown in (40):

(40) a. **Hablando de** la mesa, recuerdo ahora que dejé la carta allí (=en la mesa).   (Sp)

    Speaking of the table, I-remember now that I-left the letter there (=on the table).

  b. **Hablando de** (*en) la mesa, recuerdo ahora que dejé la carta allí (=en la mesa).

[from Bosque & Gutiérrez-Rexach 2009: 685]

Just one thing that I would like to point out that, as seen in (40b), the constituent uttered in the initial position of the sentence cannot appear with the preposition *en* (Eng. on), which *allí* (Eng. there) refers to in the root clause. On the basis of the link to an antecedent, from the point of view of syntax, the CLLDed constituent conceives as a movement, whereas the HTed one as the base-generated phenomena in the left periphery.

    As for the restrictions of dislocation, besides DPs, the diverse constituents can be CLLDed; APs, PPs, and CPs:

(41) a. **Listo** no lo parece.   (Spanish)

    clever not CL seems

  b. **Sobre la mesa**, no lo he puseto.

    On the table, no CL I-have put.

  c. **Que fumas** lo sabemos todos.

    that you-smoke, CL we-know all.

[from Zubizarreta 1998: 101, 110; Casielles 2004:27]

In the case of Korean, apart from APs, the rest of the constituents can be topicalized comparing to Spanish as in (41):

(42) a. [Eomma-ege-neun]   María-ga   chaeg-eul   seonmulhae-ss-da.   NP (Korean)

      mother$_{-DAT.to-TOP}$ María$_{-NOM}$ book$_{-ACC}$ give$_{-PAST-DEC}$

      'María gave the book to mother.'

   b. [Seoul-e-neun]   saram-i   man-da.   PP

      Seoul-in$_{-TOP}$ people$_{-NOM}$ there are many

      'There are many peopel in Seoul.'

   c. [Ne-ga   dambae piunen geos-eun]   uri modu-ga   an-da.   CP

      you$_{-NOM}$ smoking$_{-TOP}$ we all$_{-NOM}$ know$_{-DEC}$.

      'We are know that you smoke.'

   d. *[Ttogttoghan-eun], geuleohge boiji anh-a.   *AP

      smart$_{-TOP}$,   like   look no

      'Smart, it does not look like.'

In the data (42) above, the NP-indirect phrase *'eomma-ege'(to mother)*, PP *'Seoul-e'(in Seoul)*, and the CP of relative clause *'ne-ga dambae piunen geos'(the fact that I smoke)* can move to initial-sentence to be topicalized, whereas APs cannot as in (41e)[74].

---

[74] In the case of English topicalized arguments, this is more restrictive in its distribution than in Romance languages, i.e., the noun phrase only can be dislocated or topicalized:

(i) a. This book, I don't like.

   b. John, I saw him yesterday.

   c. Thelma, Mary will invite.

                    [from Casielles 2004: 72; Haegeam & Guéron 1999: 516]

(ii) a. *Clever he doesn't seem it.

   b. *Everybody I haven't seen them yet.

   c. *That you smoke we are know it.

                             [from Casielles 2004: 74]

This shows that the English topicalized arguments differ from the CLLD in Romance (Haegeman & Guéron 1999; Haegeman 2004). We do not discuss profoundly the difference between English topicalization and CLLD arguments here.

Bearing these properties of Spanish in mind, let us now approach topicalization to Korean. Again, as I said before, the properties of topicalization in Korean is required to be located on the left side or initial position of a sentence as well as morphological *-(n)eun* topic marker.

(43) Q: Totoro-ga   mueos-eul   gajyeoga-ni?   (Korean)

       Totoro-NOM   what-ACC   take-Q

      'What does take Totoro?'

  A: Totoro**-neun**   dotori-leul   gajyeoga-n-da.

      Totoro-TOP   acorns-ACC   take-PRT-DEC

     'Totoro takes the acorns/ As for Totoro, he takes the acorns. '

  B: *Totoro-ga   dotori**-neun**   gajyeoga-n-da.

      Totoro-NOM   acorns-TOP   take-PRT-DEC

     'Totoro takes the acorns, not others.'

  C: *Dotori-leul   Totoro**-neun**   gajyeoga-n-da.

      acorns-ACC   Totoro-NOM   take-PRT-DEC

     'Totoro (not other) takes the ACORNS.'

As I pointed out in section 4.2, the shared constituent in the previous question *Totoro*, is expected to be marked with *-neun* at the initial position of the sentence to be topicalized in the answer sentence. This prediction is definitely borne out in (43A). It is deviant if it is not placed on the left side of the sentence, even if *Totoro* is marked with *-neun*, as shown in (43B).

At this point, there may raise a question as to whether the topic marker *-neun*, which plays a role such as '*hablando de*' (Eng. As for/ Speaking about) in Spanish, can be omitted as HTed constituent. The answer is yes, and the only topic maker can be elided as in (44b) or the whole topic marker constituent can be also omitted as shown in (44c), and in this case, it refers to as *Null Subject Languages* or *(radical) pro-drop*:

(44) Q: Nu-ga   dotori-leul   gajyeoga-ss-ni?   (Korean)

      who-NOM   acorn-ACC   take-PST-Q

      'Who took the acorn?'

  a. Topic with particle *'-neun'*[75]

---

[75] The syntactic properties and semantic effects of topic with particle –neun and without –neun are discussed in

Geu dotori-**neun**   Totoro-ga   gajyeoga-ss-eo.

the   acron-TOP   Totoro-NOM   take-PST-DEC

'As for the acorn, Totoro took it.'

b.Topic without particle *'-neun'*

Gue dotori,   Totoro-ga   gajyeoga-ss-eo.

the   acorn   Totoro-NOM   take-PST-DEC

c. Ellipsis of topicalized subject (*radical pro-drop)*

~~Geu dotori -neun~~   Totoro-ga   gajyeoga-ss-eo.

Finally, -neun marked topic element in Korean and the CLLDs in Spanish are sensitive to strong island effects:

(45) a. *A Carlos, Pedro conoce [a la persona [que lo visitó]   (Sp)

"To Carlos, Pedro knows the person who visited him".

b. *Carlos-neun,   Pedro-ga (geu-leul)   bangmunha-n   salam-eul   algo iss-da. (Ko)

Carlos-TOP,   Pedro-NOM (him-ACC)   visited-who   person-ACC   knows-DEC.

To sum up, the similarities and differences between Korean and Spanish can be summarized as follows from a cross-linguistic point of view.

(46) Similarities of topics in Korean and Spanish

a. It is located on the left.

b. The HTs are equivalent to the topic element without maker –*neun* (base-generation approach).

c. The CLLDs are equivalent to the topic element with marker –*neun* (movement approach).

d. Strong island-sensitive

(47) Differences of topics in Korean and Spanish

	Korean	Spanish
± multiple	-multiple topics	+multiple topics

detail in Kang's (2017) master's paper.

Distribution of phrases	NPs, PPs, CPs / no APs	All kind of phrases are possible: DPs, PPs, CPs, APs

Based on this data, the next chapter will present an integrated system for topicalization that can be considered between the two languages. In what follows, let us go through some of the semantic properties of topic marker –*neun*.

4.4.1.2. Topic marker -*(n)eun*

Before exploring the focalization in Korean, I would like to briefly introduce the basic functions of topic marker -*neun*[76] (corresponds to Japanese's -*wa*) under the definition of the traditional grammar in Korean. In what follows, let us look at how -*neun* is semantically and syntactically related to information elements. In the traditional grammar of Korean, the basic function of topic marker is to indicate *aboutness* or old information:

(48) Aboutness

    a. Jeo-**neun**   migug-eseo on   Michael imni-da.   (Korean)

       I-TOP   America-from   Michael am-DEC

       "I'm Michael from America."

    b. Jeo-e daehae malhajamyen, migug-eseo on Michael imni-da.

       I-speaking of,   America-from Michael am-DEC

       "Speaking of me, I'm Michael from America."

                                    [from NIKL 1999:435]

(49) Old / Given information

    a. yesnal-yesnal-e han sonyen-i i   maeul-e   sal-ass-da.   (Korean)

       long long-ago one boy $_{-NOM}$ this town-at   live$_{-PAST-DEC}$

       "Once upon a time, a boy lived in this town."

    b. geu sonyen-**eun/*i** sey   mali-ui   gae-leul   gajigo iss-eoss-da.

       the boy$_{-TOP/-*NOM}$ three CLS$_{-GEN}$ dog-ACC have be$_{-PAST-DEC}$

       "The boy had three dogs."

                                        [from Han 1992: 7]

---

[76] The topic marker -*eun/-neun* alternates depending on the phonological state of preceding nouns: -*eun* follows a consonant and -*neun* is used after a vowel.

As shown (48a) and (48b), the topic marker *'-neun'* can be substituted by *'-e daehae malhajamyen'* (in Eng. speaking of). In other words, it is used when the speaker try to explain a fact, an affair, a person or an object to the hearer. In the (49), new information is marked by case marker *–i* but the old /given information by the previous sentence is marked by topic marker *–neun*, as in (49b). However, there is another assertion that its main function is *contrastiveness*.

There have been many long discussions in Korean linguistics with respect to the particle *–neun*'s main semantic function. They did not achieve an agreement and three major analyzes are most persuasive (Kim 2015, Han 2017). At first, there is an assumption that the only function of *-neun* is to mark a constituent as a topic and its secondary function is contrastiveness (NIKL 1999: 433; Yeon & Brown 2011: 121; Choi 2004: 142; Park 2003: 239; Lee 2005: 146; Koh & Wang 2014 among many others). On the contrary, this basically marks contrastiveness and aboutness as a secondary function. Finally, the particle *–neun* deconstruct the notion of topic and focus, rather it marks as the discursive prominence (Choi 1996, Kim 2015; 2016).

(50) Three semantic approaches of the topic marker *–neun*

    a. Main function: topic / secondary function: **contrastiveness**

    b. Main function: contrastiveness / secondary function: **aboutness**

    c. Discursive **prominence**

Han (1992, 1998) distinguishes three different reading for *-(n)eun* marked phrases depending on the syntactic environment: a topic reading, a contrastive topic reading, and a contrastive focus reading[77]:

(51) Topic reading/ Contrastive topic reading

    [IP John-eun   [VP Mary-luel   joahanda]]

        John-TOP/CT   Mary-ACC   like

    'As for John, (he) likes Mary' [Topic reading]

---

[77] Languages with 'topic marker' allow more than one reading, for instance, Japanese *-wa* and Hindi *-to* have both the topic, contrastive topic reading and contrastive focus reading as Korean (see Han 1992 foot note 4).

'As for John, (he) likes Mary, (Frank likes Susan, and Peter likes Laura) [Contrastive topic reading]

(52) Contrastive focus reading

   [$_{IP}$ John-i   [$_{VP}$ Mary-neun   joahanda]]

    John-NOM   Mary-CF   like

   'John likes Mary, (but not others).'

<div align="right">[from Han 1992: 2]</div>

Han (1992) argues that *-neun*-marked DPs in VP-external position receive topic/contrastive topic reading and VP-internal *-neun*-marked DPs have contrastive focus reading, following Diesing's (1992) mapping hypothesis that accounts for the VP-external *-(n)eun* marked phrase as a quantificational element and it can be a (contrastive) topic, on the other hand, the VP-internal *-(n)eun* marked phrase as a non-quantificational one thus cannot be a topic.

As for the contrastiveness first, it has a presupposition that there are other DP elements besides the DP of the given discourse entity. In other words, by *-neun* we can presuppose that there is a set of DPs in the discourse domain. In this connection, Han (1992) suggests different reading possible by defining the presupposed set of *-neun* as follows:

(53) Presupposition of α-*(n)eun*, where α is an individual and X is a set variable over individuals: $\exists X[\alpha \in X] \land (|X| \geq 1)]$

<div align="right">[from Han 1992:5]</div>

Put simply, when the DP set is composed of more than one element, topic reading, contrastive topic reading, and contrastive focus reading are all possible. When the DP set has one element (singleton set), only topic reading is available. That is, topic reading is about without any implications regarding other elements in the set, and contrastive topic and contrastive focus reading is about a certain implication regarding other elements in the set. This is the difference between topic reading and contrastive (topic and focus) reading, as can be seen in the examples (51) and (52).

Bearing this background in mind, we explore the various possible topic reading.

4.4.1.3. Sub-types of topics

From a perspective of discourse, Frascarelli and Hinterhölzl (2007: 87-88)[78] distinguish topics into three types based on the semantic/pragmatic part: aboutness/shifting topics, contrastive topics, and familiar topics, as follows:

(54) Three types of topics

    a. aboutness or shifting topic: the topic that is introduced newly in the discourse, or is turned to among the topics in the given previous discourse.

    b. contrastive topic: one topic that is selected among alternative referents in the discourse and oppose it to another one.

    c. familiar topic: the topic that simply is mentioned in the previous discourse.

            [from Jiménez-Fernández and Miyagawa 2014: 284; Fábregas 2016: 24]

The followings are the examples, corresponding to each type of topics mentioned above:

(55) Aboutness / Shifting Topic

    [Context: we have bought just oranges and apples, but up to that moment we had only been discussing what to do with the oranges]

    … (En cuanto a) las manzanas, las podemos usar para hacer mermelada.

     (in about to)   the apples,   them can-$_{1SG}$ use   to   make marmelade.

                           [from Fábregas 2016: 24]

(56) Contrastive Topic

    [Context: we have bought apples and oranges and we are discussing what to do with them]

    ...Las manzanas, las podemos usar para mermelada; las naranjas, las podemos

     the apples   them can-$_{1PL}$ use for   marmelade; the oranges, them can-$_{1SG}$

    usar para hacer zumo

    use   to   make juice

    'The apples, we can use them to make marmalade; the oranges we can use to make juice.'

                          [from Fábregas 2016: ibid.]

---

[78] The followings are the claims of the same line with the three types of topics: Jiménez-Fernández and Miyagawa (2014), Fábregas (2016), and Bianchi and Frascarelli (2010).

(57) Familiar Topic

    a. ¿Cuándo rompió Juan el jarrón?

       When   broke-3SG. Juan the vase

    b. <u>Juan</u>, <u>el jarrón</u> lo rompió esta mañana.

       Juan,   the vase it-3SG. broke-3SG. this morning

<div align="right">[from Jiménez-Fernández 2011: 10]</div>

The following are examples showing three kinds of topics in Korean (Choi 1996, Han 2017, Lee 2007, Oh 2007, among many others).

(58) Aboutness / Shifting Topic

    a. ne Sinay eotteo-ha-go barampi-nya?

       You Sinay how-do-and cheating on her-INTERROGATIVE

       "How do you cheat on Sinay?"

    b. ne-kkaji wae geulae? <u>Yumi-neun</u> jal jinae-ni?

       you-even why tease? Yumi-TOP is well-INTERROGATIVE

       "Why are you teasing me? Yumi is well?.

<div align="right">[from Oh 2007: 66]</div>

(59) Contrastive Topic

    a. ai-deul-eun myeoch sal-iji-yo?

       children-TOP how many years old-INTERROGATIVE

       "How old are your children?"

    b. <u>keun ai-neun</u> yeolsal-igo <u>jageun ai-neun</u> ilgobsal iye-yo.

       older kid-TOP ten years-is-and younger kid-TOP seven years is-DECLRATIVE

<div align="right">[from Lee 2007: 158]</div>

(60) Familiar Topic

    a. neo-hui   eomma   jigeum   mwo ha-si-ni?

       your-GEN   mother   now   what do-HON-INT

       "What is your mother doing now?"

    b. <u>eomma-neun</u>   jigeum   jumu-se-yo.

       mother-TOP   now   sleep-HON-DEC

"Mom sleeps right now"

In the conversation (58), the '*Yumi*' is introduced newly in the discourse by virtue of the particle *-neun*. In the case of (59), the two topic constituents '*keun ai*' (older kid) and '*jageun ai*' (younger kid) was selected by speaker among alternative referents and the selected topics are the opposite. Finally, in the discourse (60), the topic element *eomma-neun* functions as a familiar topic that is already mentioned in the previous question. Strictly speaking, this corresponds to the given/old information that is well-known in literature.

So far, we have scrutinized the syntactic and semantic properties of topics in Korean based on the existing researches. In the next section, we discuss whether Focus Fronting (FF) that is one of the left periphery phenomena and gives Contrastive Focus (CF) interpretation in Romance languages can be also applied to Korean. In addition, we consider the basic concept of Focus and how to approach it to Korean's focus structure.

4.4.2. Focalization

This section is devoted to introduce the different notions available with respect to the focus structure in the literature and scrutinize the Korean datum. As we have already discussed before, the focus constituents have the relationship between new information, stress and sentence-final position, whereas the topicalized elements are related to old information and sentence-initial position. In particular, the focused elements get stress and this phonological feature leads the semantic effect.

However, a number of studies have been already raised the problems of identifying a focus, like the problem of notion of topicalization, the various approaches have been tried to identify what focus is (Rochemont 1986, Gundel 1994, Erteschik-Shir 1997, Vallduví 1990, Lambrecht 1994, and É. Kiss 1998). The focused constituent can stay in situ or can be moved to the left periphery with focal stress, unlike the canonical definition in the literature, in which the focus elements are placed in final position of a sentence.

(61) a. I ordered a COKE.   (English)

    b. A COKE I ordered.

(62) a. [TOPIC Se fueron]   [FOCUS los niños].   (Spanish)

        SE leave-PST-3.PL   the children

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'The children left.'

  b. ELS GANIVETS li   vaig donar.   (Catalan)

     the   knives   CL.-him   give-PST-.1SG.

    'THE KNIVES, I gave him.'

As seen in (61) and (62), English and Romance languages often take a syntactic or phonological way for focused elements, of which the former one is the movement of focused one, namely FF (Focus Fronting), and the latter one is putting the stress. In the case of Romance language as in (62a), in the neutral structure without focal stress, the focused one means new information and is in the final position of the sentence and in (62b) fronted focus implies contrastive focus meaning.

    As for Korean, it takes a phonological or morphological way for focused elements, whereby putting stress to the in-situ focused constituent or attaching a particle after the focused one.

(63) a. Nae-ga   COLA-LEUL/cola-leul   sikyeossda.   (Korean)

     I$_{-NOM}$ COKE$_{-ACC}$ ordered

     'I orderd COKE.'

  b. Nae-ga   COLA-<u>NEUN</u>   sikyeossda

     I$_{-NOM}$ COKE$_{-CF}$ ordered

    'A COKE I ordered.' → 'I ordered A COKE, (but not others).'

In (63a), it is neutral focus structure and the focused element can be marked by intonational stress or not to be expressed as new information. If this element needs an emphasis, it is uttered by putting stress and if not, it is realized simply as the unmarked form. In the case of (63b), the focused element is marked by the particle *-neun* morphologically and is stressed phonologically at the same time. Semantically, it is interpreted as Contrastive Focus in-situ. If the *–neun* marked element bearing focal stress moves to left periphery as Spanish and English, in which FFed element is considered CF, this expresses contextually Contrastive Topic, not CF.

(64) COLA-<u>NEUN</u>   nae-ga   sikyeossda.   (Korean)

    COKE$_{-CT}$ I$_{-NOM}$ ordered

'As for a coke, it is what I ordered. (John ordered a juice, and Peter ordered a coffee).'

As can be seen in (64), the FFed element with focal stress does not indicate CF, while in Romance languages, FF leads to the conclusion that it causes the interpretation of CF. This is exactly consistent with the fact that López (2009) pointed out that FF does not mean CF, as depicted below:

> Taking FF to exemplify contrastive focus, I show that this approach is empirically wrong, as a matter of fact, anything that can be a regular focus can also be contrastive focus with no restriction on the domain of quantificational. I argue that the difference between regular focus and contrastive focus lies on how they integrate into the previous discourse.

[from Lopéz 2009: 25]

Thus, it can be seen that the way that Korean and Spanish take is distinct for focus expressions, like topicalization. É. Kiss (1998b) analyzed the syntactic focus in Hungarian as a focus movement. Focus movement[79] is a kind of non-argument movement, assuming that universal grammar, like *wh*-phrase, has a specific structural position regarding the focus element in the phrase.

(65) a. $[_{CP}$ wh$_i$ $[_{IP}$ ... t$_i$ ...$]]$ Wh-movement

   b. $[_{FocP}$ XP$_i$ $[_{IP}$ … t$_i$ …$]]$ Focus-movement

The configuration (61a) shows that the focused phrase in IP moves to the [Spec, FocP] position, as the *wh*-word in IP moves to [Spec, CP].

In the forthcoming section, we explore the restrictions of co-appearance among the left peripheral elements.

4.5. Restrictions of co-appearance

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[79] Based on Fukaya and Haji(1999)'s argument, the wh-movement that is observed in Japanese slucing is vertually focus movement as shown in stripping. Thus, it is possible wh-phrase bear Foc feature rather than Int feature, and this view is compatible with what I agruing for.

In this section, we discuss the cases of co-appearance among the left peripheral elements and their constraints. The discussion will focus on the co-appearance of a scrambling-element and a topic as well as multiple topic and multiple foci.

In Rizzi (1997), the constraint of co-appearance in multiple focus in Italian (including Spanish) is observed, as illustrated in (15b). The asterisk marker means that multiple topics are possible as in (15):

(66) Rizzi's (1997) topic-focus ordering constraints

...C^0 (Top$*^2$) (Foc) (Top$*$) ...

(66) a. Il libro, a Gianni, domani, glielo darò senz'altro   (Italian)

'The book, to John, tomorrow, I'll give it to him for sure.'

b. Yo, hoy, de ese asunto no pienso hablar.   (Spanish)

'I, today, about that matter I do not think talk.'

[from Rizzi 1997: 290 (21); RAE 2008: 2975]

(67) a. *A GIANNI IL LIBRO daro (non a Piero, l'articolo)   (*focus, focus)

'TO GIANNI THE BOOK I'll give, (not to Piero, the article)'

b. A Gianni, QUESTO, domani, gli dovrete dire   (topic, focus)

'To Gianni, THIS, tomorrow, you should tell him.'

[from Rizzi 1997: 290 (22)]

As can be seen in (67a), it is impossible to appear double focus in Italian (including Spanish). In Korean, by contrast, the focus element can be repeated as in (68b), whereas the double topic is impossible as shown in (68a).

(68) Korean's topic-focus ordering constraints

... C^0 (Top) (Foc) (Foc) ...

a. *I chaeg-eun, **John-eun**, **naeil-eun**,   nae-ga   hwagsilhi   jugessda

this book-ACC   John-TOP   tomorrow-TOP   I-NOM   surely   give-FUTURE-DEC

b. I CHAEG-EUL   JOHN-EGE, NAEIL,   nae-ga   hwagsilhi   jugessda

this book-ACC   John-DAT   tomorrow   I-NOM   surely   give-FUTURE-DEC

'THIS BOOK, JOHN, TOMORROW I'll give (it) to (him) for sure.'

[from Lee 2007: 139]

Lee (2007) suggests the impossibility of multiple topics, nonetheless, to my ear, this sentence is not completely ungrammatical, if the second, and third position –*neun* is interpreted as contrastive focus (henceforth CF). The following shows the possibility of multiple topics in Korean:

(69) I   ai-**nuen**   dongsaeng-hante-**neun**   inhyeong-**eun**   jueossda.
    this   child-TOP   younger brother/sister-to-TOP   doll-TOP   gave
    'This child, to his/hers younger brother/sister, a doll, gave.'

[from Lee 2003: 358]

Even though Lee (2003) conceive all –*neun* topic marked elements as topics, the second and third –*neun* marked elements still seem to be interpreted as the CF. According to Han (1992)'s account, the topic marker -*neun* give their DPs an interpretation of TOPIC and CF depending on their position, as we have seen before. Thus, the following sentences show that the topic particle has recursion, but the lower positioned –*neun* means CF. Strictly speaking, there is no recursion in topic of Korean.

(70) a. John-**eun**   sagwa-**neun**   meog-eoss-da.   (Korean)
       John-TOP   apple-CF/*TOP   eat-PAST-DECLARATIVE
       'Speaking of John, he ate the apple, (but not other fruits).'
    b. John-i   chaeg-**eun**   Mary-ege-**neun**   ju-eoss-da.
       John-NOM   book-CF   Mary-to-CF   give-PAST-DECLARATIVE
       'John gave the book (but not other things) to Mary (but not others).'

[from Han 1992: 9]

Among Italian data introduced by Rizzi (1997), the co-appearance between wh- and topic/focus also is presented as illustrated in (71) and (72):

(71) a. A Gianni, che cosa gli hai ditto?   (topic, wh)
       "To Gianni, what did you tell him?"

b. *Che cosa, A Gianni, gli hai ditto?"   (*wh, topic)

   "What, to Gianni, did you tell him?"

(72) a. *A GIANNI che cosa hai ditto (. non a Piero)?   (*focus, wh)

   "TO GIANNI what did you tell (. not to Piero)?"

   b. *Che cosa A GIANNI hai ditto (. non a Piero)?   (*wh, focus)

   "What TO GIANNI did you tell (, not to Piero)?"

[from Rizzi 1997: 291 (24), (25)]

(71) shows that the topic should be placed higher than wh-element in Italian. In (72), we can see that wh-element and focus are constrained in co-appearance. In the case of Korean, however, the co-appearance between wh-element and informative elements (i.e., topic and focus) is possible as shown in (73) and (74):

(73) a. John-ege-neun   mueso-eul   malhaess-ni?   (topic, wh)

   John-DAT-TOP   what-ACC   said-Q

   b. *mueos-eul   John-ege-neun   malhaess-ni?   (*wh, topic)

   What-ACC   John-DAT-*TOP/CF   said-Q

(74) a. JOHN-EGE/MAN   mueos-eul   malhaess-ni (, not to Peter) ?   (focus, wh)

   JOHN-DAT/only   what-ACC   said-Q

   b. mueos-eul   JOHN-EGE-NEUN   malhaess-ni (, not to Peter)?   (*wh-topic)

   what-ACC   JOHN-DAT-*TOP/CF   said-Q

A possible suggestion for the absence of a hierarchical structure between wh and topic/focus is that, in the case of (73b) and (74b), the meaning of the –*neun* marked element in the initial position differs from it of the -*neun* marked element, which is placed lower than the scrambled element. As noted in section (4.4.1.2), when a –*neun* marked element is lower than other elements, the topic marker -*neun* has semantically 'contrastiveness' in Korean. Furthermore, I can put forward that the –*neun* topic marked element, which is in the initial position, is base-generated. This can be inferred from the fact that appearance of case particle and topic markers do not co-appear, as shown in the following example. The example (75) is a canonical word order-clause for the test: subject-dative object-direct object-verb.

(75) Totoro-ga   May-ege   dotori-leul   jueoss-da.   (Koean)

The following is the test whether topic marker –neun can be attached to case particles:

(76) a. May-ege-neun   Totoro-ga   t   dotori-leul   jueoss-da.   (Korean)

     May-to-TOP   *Totoro-NOM*   *acorn-ACC*   *gave-D.*

   "To May, Totoro gave acorn."

   b. Totoro-ga-(*neun)   t   May-ege   dotori-leul   jueoss-da.

      *Totoro-NOM-(*TOP)*   *May-to*   *acorn-ACC*   *gave-D.*

    "Totoro, (he) gave the acorn to May."

   c. Dotori-leul-(*neun)   Totoro-ga   May-ege   t   jueoss-da.

      *Acorn-ACC-(*TOP)*   *Totoro-NOM*   *May-to*   *gave-D.*

    "The acorn, Totoro gave (it) to May."

As shown in (76b) and (76c), the topic marker –*neun* can not be attached to the case particle while it is possible to appear with the dative case particle. Given that the –*neun* marker element undergoes a left movement, the (structural) case particle should be shown up with topic marker since the structural cases such as nominative and accusative are assigned from VP/ v*P- internal. Whether topicalization is a phenomenon derived from a left movement of a base-generation will be discussed in the next chapter.

     In what follows, we explore the Force-Finite system in Korean, which relatively appears richness splitted-CP comparing to Romance language on the basis of Rizzi's (1997) the fine structure of left periphery.

4.6. The morpheme of Force P and FinP in splitted CP system

In the introduction of chapter 4, I have presented the peripheral constituents of Korean that occupy both directions comparing to Spanish, in which in general, all the informational and force/modal constituents populate in the left peripheral sentence. I repeated here to remind:

(77) The pragmatic elements distributed in the left and the right side

    [Top [Foc [Foc]]] SOV[[[IP . . .] Mod] Force]   (Korean)

(78) The pragmatic elements located in the left side

   [Force [Top* [Foc [Top* [Fin [$_{IP}$ . . .]]]]]] SVO   (Spanish)

    que(that)   *de(for)*

Considering that Korean is verb-final language, the fact that the force/modal elements are located on the right side of the sentence by attaching to the verb-root must be true. In the case of a simple clause, the sentence type is always determined by the morpheme of Force as I introduced in chapter 3 and 4. This observation is extended to the relative clause in Korean. That is, the following example (64a) is identified that the Modal and Force morphemes are realized on the right side of the matrix and embedded-verb respectively, which is also is on the rightward.

(79) a. $S_{1\text{-ga}}$ [$S_{2\text{-ga}}$ $O_{\text{-leul}}$ $V_{1\text{-T-M-F}}$]-go (that) $V_{2\text{-T-M-F}}$ (Korean)

   b. $S_{1\text{-ga}}$ $O_{i\text{-neun}}$ [$S_{2\text{-ga}}$ t_i $V_{1\text{-\underline{T-M-F}}}$]-go (that) $V_{2\text{-T-M-F}}$.

As can be seen in (79b), the topicalized object indicated by the topic marker *-neun*[80] and the M(odal) and F(orce) attached to the Verb-root are not adjacent, unlike Spanish as in (78). In spite of this fact, there is an analysis that the adjacency of informational element and Force-Finite system in the head-final language is also observed:

(80) a. Taroo-wa [$_{CP}$ kare-no imooto-ga soko-ni ita (no) ka (to)] minna-ni tazuneta.   (Ja)

    T$_{\text{-TOP}}$ he$_{\text{-GEN}}$ sister$_{\text{-NOM}}$ there-in was   *no ka to*   all$_{\text{-DAT}}$ inquired

    'Taroo asked everyone if his sister was there.'

   b. [… [… [… [$_{TP}$ …] Finite *no*] e $_{\text{[+TOPC]}}$] Force *ka*] Report *to*]

It should be pointed out in Saito's schema that it is basically assumed that the Japanese CP-part appears as a mirror image according to the head-parameter and that focus is expressed in situ with stress. Thus, we go further into this point of view, even though it is not compatible with the anti-symmetry approach to which we have supported. In addition, it is also worth mentioning that the complementizer 'that' in Force is divided into Force and Report inserted

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[80] In the case of focus, it is generally interpreted as focus in situ with case marker.

by the complementizer for proposition *no*. The hierarchy is restrictive between *no*, *ka* and *to* on the right side of the verb thus, Saito (2010) refers to it as the structure of the right-periphery. This phenomenon is identical to *geos(no)*, *inji(ka)*, and *hago(to)* in Korean.

(81) a. [… [… [… [TP …] Finite *geos*] e [+TOPC]] Force *inji*] Report *hago*]   (Korean)

    b. Yuna-neun [CP Totoro-ga dotori-leul gajyeoga-n (geos) inji (hago)] modu-ege

      Y-TOP   T-NOM   acorn-ACC   take-PST   *(geos) inji (hago)*   all-DAT

      muleossda.

      inquired.

      'Yuna asked everyone *if* Totoro took the acorn.'

However, what is important thing is where the 'Topic' is and how it is expressed between the force-finite system as Rizzi (1997) indicated importantly. Even though 'Topic' morphologically does not appear in Japanese (i.e., the topic's position is just reflected as a mirror image and this topic is referred to as thematic topic in Japanese), in Korean, topic marker *-neun* is overtly marked.

(82) a. [… [… [… [TP …] Finite *geos*] *eun* [+TOPC]] Force *aninji*] Report *hago*]   (Ko)

  b. Yuna-neun [CP Totoro-leul dotori-leul gajyeoga-n (geos) eun   aninji (hago)] modu-ege

      Y-TOP   T-NOM   acorn-ACC   take-PST   *(geos) eun aninji (hago)*   all-DAT

      muleossda.

      inquired.

      'Yuna asked everyone *if* Totoro took the acorn.'

Therefore, the split-CP area, aside from focus and direction, is also borne out in Korean.

    In spite of the fact that Korean (and Japanese) also holds the fine structure of the left periphery on the right side on the basis of the Rizzi's split CP system, I would also like to introduce the additional properties of another type of split-CP in Korean. On the basis of the fine structure of left-periphery, as we have shown above, the Report head can follow the Force in the relative clause in Korean. Interestingly, Yoon & Yoshida (2017) introduce the more splitted-CP case, outside of the Report head in the conditionals based on the copula *geos-ida* construction.

(83) a. *Geos-ida* Constructions

[$_{ForceP}$[$_{TopP}$[$_{FocP}$[$_{FinP}$[$_{IP}$[$_{VP}$…V]-tense]-*geos*]]](*-ida*)]

b. *Myen* Conditionals

[$_{ForceP}$[**$_{FocP}$[$_{ReportP}$**[$_{ForceP}$[$_{TopP}$[$_{FocP}$[$_{FinP}$[$_{IP}$[$_{VP}$…V]-tense](*-geos*)]-*ila*]]](**ko-ha**)]]]-*myen*]

:[…[…[…[…[…Finite (*geos)*] Force *(ila)*] **Report (t_{koha})**]**Focus (*koha*)**] Force (*myen*)]

[Yoon & Yoshida : 44-46]

It is notable that double Force morphemes *-ila*, which is derived from the copula *-ida* (Eng.be) and the conditional marker *-myen,* which may a complementizer of the *if* conditional construction.

In a nutshell, it is observed that Korean holds the more various splitted-CP system on the basis of Rizzi's splitted-CP in Romance languages.

4.7. Conclusions

Summing up this chapter, I have argued that *wh*-words in Korean tend to hold [-Q] features, in other words, indefinite meaning centrism than [+Q] interpretation. If *wh*-words receive the interrogative interpretation, this is due to the complementizer *–ni/-kka* in the head of CP. As for the information structure bearing TOPIC and FOCUS, the hierarchical relationship appears among them as in Romance languages. However, the different thing is that does not show double Topics in Korean. Rather, multiple foci (*Contra* Rizzi 1997) frequently occur by means of case marker and prosodic stress. In addition, the topic marker *-neun*, which plays a significant role in information structure, has different meaning depending on the syntactic position such as informative topic, thematic topic and constratsive topic. Finally, we have shown the case of fine structure of left periphery in Korean but positioning on the right side of the verb under mirror image hypothesis. In particular, the richness splitted-CP in the structure of copula conditionals has been prominent based on the first thought of the idea in Saito (2010).

Chapter 5

Parameters of variation within the Left Periphery

5.1 Introduction

This chapter explores various cases of phonological, morphological and syntactic parameters applied to variations that occur in the left periphery. In chapter 3, we have pointed out that LCA-type approach is too strict for linearization and that the position between specifiers and adjuncts are not determined. As part of efforts to circumvent these difficulties, there are interesting proposals that multiple specifiers/ adjuncts constructions are being dealt with recently capitalizing on phonological parameters together with Cartographic approach.

I review how phonological principles such as 'Distinctness' (Richards 2010), and 'Multiple-Spell out' (Uriagereka (1999); Nunes & Uriagereka 2000) applies to linearization in {XP, YP}, which is the same unit appearing in the same Spe-ll out domain yielding problem of word ordering.

Also, there is a brief discussion of how morphology can play as a parameter within left peirphery. I will provide exmanpes where topic and focus are expressed overtly by specific particles such as '-*neun*' (in Korean) and '-*wa*' (in Japanese) without undergoing any movement. In addition, some cases in which morphological differences affect syntactic operation, resulting in microvariation of the left periphery between Spanish and Catalan, will be introduced base on the data of Gallego (2010)./

Most of all, however, attention will be paid to syntactic parameters in this chapter, which are the goal of this dissertation. In order to scrutinize as to whether left periphery is a 'dedicated' position created by syntactic operation or is a simply added position by a certain morpheme or sound with its own meaning, the respresentative diagnosis for syntactic operations such as island contratins and binding tests are provided based on the existing analysis.

By and large, it is widely accepted that wh-phrases, undergo movement operation to the CP-domain since the overt movement of wh-phrases is precisely captured in Romance languages and English. Many studies, including Rizzi's (1997 et seq.), have presented analyses that topics and foci can also appear in the sentential initial position as a result of movement operations to the CP-layer based on the behavior-patterns of wh-phrases. As a

result, the CP projection has been assumed to be a universal functional category in all languages.

In Korean, however, wh-in-situ, focus-in-situ, scrambling, and the topic marker '*-neun*' would be problematic for an approach like the Cartographic Project of Rizzi and his associates, as discussed in many linguistic studies of Korean and Japanese. Specifically, wh-phrases and focus in Korean and Japnaese can sufficiently have semantic effects of CP-domain in place without movement. Also, the topic marker '*-neun*' itself induces discourse effects such as 'abountness', 'topic-comment', and 'contrastiveness', whenever it is added to XP-elements regardless of syntactic position. These facts do not perfectly fit in a cartographic approach, in which a discourse effect is only given by moving an element to a 'dedicated' position of a certain functional projection (i.e., CP). Finally, scrambling, which has been discussed for a long time, does not fit either into the general movement constratins which are applied under Cartography since it displays a movement patterns which are relatively free under islands environments, comparing to English and Spanish.

However, contrary to the surface properties of in-situ elements and scrambling, there have been suggested that in-situ constituents and scrambling, in fact, display cross-over effects which mean movement operation are contained. This means that Korean can be properly compatible with a cartographic approach. In order to demonstrate it, the relevant tests such as binding tests and island constraints phenomena will be dealt with in this chapter.

Moreover, in order to find some similarities and differences between two languages within Left Periphery, traditional analyses which have been covered in Spanish and Korean will be discussed. In doing so, a universal and parametric properties for the left periphery between two languages will be found.

In this chapter, I propose that FinP would be a uniform system for both languages and covert movement would be a parameter for Korean (in the case of in-situ phenomena and covert movement of null operator in Topicalization of Korean). In particular, the projection of Fin bearing the [+c] feature will be shed new light in our proposals, adopting the idea of López (2009) and Villlalba (2000). Traditional accounts, however, in which the TopP is the projection of 'old information/ aboutness' elements (for objects) and the FocP is the position for 'new information' elements, will be incorporated in our proposals.
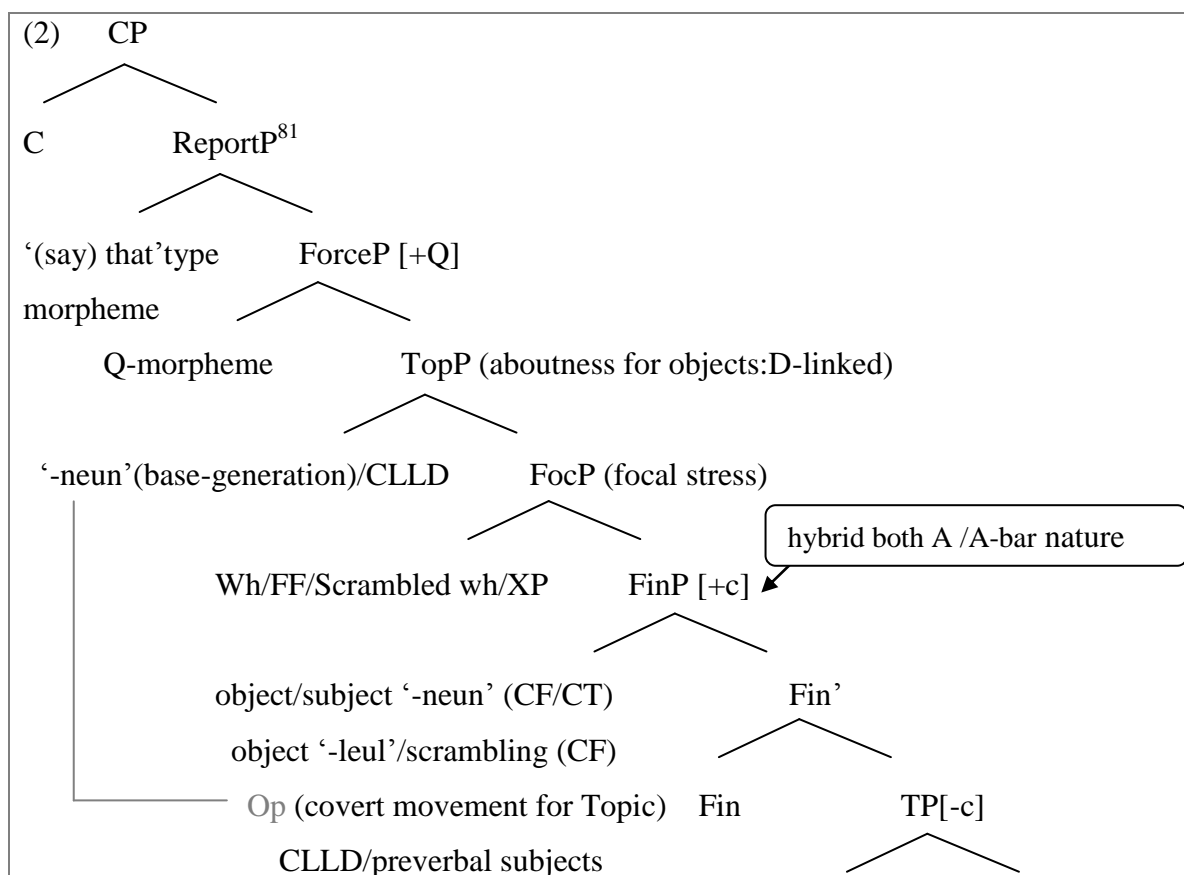
In addition, recasting on the Gallego's (2010) idea, which Spec-TP has both A and A-bar properties yielding Topic-Comment readings, I suggest that Spec-Fin has hybrid both A and

A-bar nature based on the fact that CLLD in Spanish, subjects/scrambling/topicalized objects in Korean all have 'contrastive readings'.

(1) Temporary proposals

    a. FinP has a hybrid A/A'-nature (but in Gallego 2010, it is suggested that TP has a hybrid A/A'-nature)

    b. A feature [+c] 'contrastiveness' is in Spec-FinP triggering the movement of CLLD in Spanish, subejcts/scrambling/ topicalized objects in Korean.

This suggestion starts with traditional analysis that preverbal subjects in Spanish and Korean and scrambling in Korean exhibit both A and A-bar properties. Thus, the relevant analysis that have been discussed in the literature will be reviewed in this chapter on A and A-bar properties of preverbal subjects and scrambling observed in both languages. Our proposal, which is combined what was discussed in the previous chapter and what will be discussed in this chapter, is summarized as follows:

(2)   CP

    C   ReportP[81]

'(say) that'type morpheme   ForceP [+Q]

    Q-morpheme   TopP (aboutness for objects:D-linked)

'-neun'(base-generation)/CLLD   FocP (focal stress)

hybrid both A /A-bar nature

    Wh/FF/Scrambled wh/XP   FinP [+c]

    object/subject '-neun' (CF/CT)   Fin'

    object '-leul'/scrambling (CF)

    Op (covert movement for Topic)   Fin   TP[-c]

    CLLD/preverbal subjects

---

[81] As we have seen in the previous chapter, ReportP will be mapped onto the right side, in the case of Korean and Japanese.

pro   v*P

       post-verbal subjects   VP

       subjects'-i/-ga'

       (covert movement) in-situ/Op

Based on the tree structure depicted above, the in-situ phenomenon indicated as a problem will be solved by covert movement. The proposal that their landing site is FinP starts with the fact that both in-situ Foc/Top have contrastive interpretations. Since scrambling also allows for contrastive readings as well as topic/focus readings, the movement of scrambling to FinP would be tenable. The grounds for supporting the assumption that scrambling moves to this position are that both A and A-bar effects appear (Ko 2017). Therefore, the problems that Korean is difficult to access Cartography Project will be solved in our approach to these matters. The following are questions that will arise as we go along in our discussion:

(3) a. How in-situ Foc/Top and scrambling, which are not applied to general cartographic approach, scope-discourse expressions have in terms of syntactic perspectives?

   b. Why in-situ elements, scrambling and topicalization in Korean show unusual patterns of movement?

   c. Does this A and A-bar hybrid property derives some special effects on the peripheral elements?

The discussion will be based on these questions in the proposal section.

This chapter is divided as follows: Section 5.2. addresses the basic notions of parameters based on the P&P (Principle and Parameter theory) and UG. Section 5.3. introduces variations such as multiple specifiers/ adjunctions that can be applied to morphological and phonological parameters. In particular, I propose empirical data of Korean and Spanish ti which phonological parameters are applied such as 'Distinctness' and 'Multiple-Spell out'. Section 5.3.3 that we should pay attention to, the traditional syntactic operations of the left peripheral elements such as wh-phrases, topics, foci and scrambling such as overt/covert movement, binding tests for determining movement vs. base-generation and A/A' dichotomy are addressed comprehensively. In 5.3.3.4, a piece of empirical evidence in Korean for the position '-neun' marker created by the head of Neg '-ani raising, which triggers CF readings,

adopting the Gallego's (2010) idea, in which verb movement activates the left periphery in Spanish. Section 5.4. proposes covert movement and FinP as alternatives to in-situ phenomena and Scrmabling, which are not compatible with Cartography Project. At the same time, some unique effects of A and A-bar hybrid nature of FinP on these elements is also taken into account. 5.3. Finally, section 5.5. summarizes what has been discussed so far.

5.2. Parameters: basic notions

The previous chapter explored the elements that can populate in the left periphery of a clause focusing on Spanish and Korean language. As a starting point for the main discussion of this section, I briefly summarize here the layered structure of the left periphery of the two languages. As argued by Rizzi (1997 et seq.), the left periphery is defined as a layered structure that consists of information structure, such as topic and focus elements, as in (4a), wh-elements, as in (4b). However, as we have seen in the previous chapter, the peripheral elements assumed in Rizzi (1997) was not well compatible with Korean, as depicted in (5):

(4) Spanish

    a. … C^0 (Top*) (Foc) (Top*) … (hierarchical informative structure)

    b. … C^0 wh … IP … VP … t_i (wh-movement)

(5) Korean

    a. ... C^0 (Top) (Foc) (Foc) ...   (hierarchical structure)

    b. ... C^0 ... IP   ... VP   wh   (wh-in-situ)

    c. ... C^0 ... IP   ... VP   focus   (focus-in-situ)

The problem is that the cases of in-situ in Korean deviates the basic assumption of Rizzi (1997). In this context, the surface-left periphery in Korean seems to violate from the idea that the CP (i.e., left periphery) created by the movement of elements is a universal functional projection providing semantic effects in cross-languages. Accordingly, the above-mentioned fact renders the existence of CP in Korean questionable and leads us to seek other strategies, such as morphology, phonology, or different type of syntactic approaches. .

    By and large, an aim that all syntacticians and generative grammar linguists pursue is that grammar should be capable of describing until the particular grammar. That is to say, it is their common goal to prove that a fine-grained system can describe a different type of

grammar in individual languages, and it can be said that grammar (or a fine-grained system) has descriptively adequacy. Chomsky discusses (1965) the "justification of grammar" in three-stage: observational adequacy, descriptive adequacy, and explanatory adequacy. In the case of observational adequacy, it is only evaluated whether a sentence is seemingly well generated (expressed) or specified. For example, the following sentence can say that grammar has observational adequacy.

(6) a. John is eager to please.

    b. John is easy to please.

[from Chomsky 1964:34]

The two sentences have seemingly correct grammars, and they have observational adequacy. However, the observational adequacy cannot capture the fact that the semantic relation between *John* and *please* is intuitively different shown in (5a) and (5b). In (5a), *John* is the semantic subject of the verb *please*, whereas in (5b) *John* is the object of the verb *please*. Therefore, some structural description is required to prove that these two sentences are seemingly identical but different internally. In generative grammar, those two sentences are structurally described as follow:

(6) a. John$_i$ is eager [$_{IP}$ PRO$_i$ to please]

    b. John$_i$ is easy [$_{CP}$ Op$_i$ [$_{IP}$ PRO to please t$_i$]].

In (6a), the semantic subject *John* is captured by setting an empty category PRO, which is controlled by the subject *John*. (4b) shows that the semantic object *John* is captured by setting an operator, which is generated in the object position and creates the relation subject-predication by moving to Spec-CP. The structural descriptions, therefore, makes the gap between observationally the same and at the same time semantically different narrow. Therefore, it can be said that the grammar that is structurally described well and used by various values such as PRO and Operator has descriptive adequacy. *Descriptive Adequacy* renders a reasonable explanation for capturing the semantic differences that occur in a given language. The ultimate goal of generative grammarians is to identify and prove grammars with descriptive adequacy that can provide a plausible account beyond a particular grammar.

    When a grammar with descriptive adequacy for a language is applied in more than one language, it can be said that the grammar has *explanatory adequacy*. The fact that a grammar

has explanatory adequacy is generally defined as being most consistent with *Universal Grammar* (UG). In general, the argument movement seen in the passive sentence is a representative example of the grammar with explanatory adequacy. (abbreviations: NOM (nominative), ACC (accusative), DEC (declarative), PAS (passive), PST(past)). This is because, as just describe, a simple grammar (or operation) applies to languages with completely different characteristics:

(7) a. May-ga   Totoro-leul   jabass-da.   (Korean)

      May-NOM   Totoro-ACC   caught-DEC

      'May caught Totoro.'

  b. Totoro-ga   May-hanthe   jab-hi-eoss-da.

      Totoro-NOM   May-by   catch-PAS-PST-DEC.

      'Totoro was caught by May.'

(8) a. The boy   will kiss   the girl.   (English)

  b. The girl   will be kissed   by the boy.

(9) a. El Quijote   atacó   los molinos.   (Spanish)

      The Quijote   attacked   the windmill

      'Don Quixote attacked the windmil.'

  b. Los molinos   fueron   atacados   por el Quijote.

      The windmils   were   attacked   by Don Quixote.

     'The windmil was attacked by Don Quixote.'

The examples of (a) in each number are active sentences, and the (b) are passivized phrases. In the passivized sentences, 'Totoro', 'The girl', and 'Los molinos', which seem subjects actually do not have semantically 'agent' as a subject, rather they obtain a 'thematic role' by the passivized verb. The reason for the left shifting to the subject position is because the passive verb does not assign nominative case, and these elements undergo the left movement to receive the nominative case in the proper position[82]. Thus, the D-structure captures the semantic relationship between subject and object.

---

[82] This is the case that is applied the case filter. In other words, the the internal argument (i,e, the girl and Juan) in the VP should undergo to satisfy this condition.

(10) a. Totoro_i-ga   [_vP May   [_VP jabassda   Totoro]

    b. The girl_i   [_vP   the boy   [_VP kissed   The girl]

    c. Los molinos_i [_vP   el Quijote [_VP atacados   Los molinos]

In D-structure, it is observed that the internal argument, which is generated in VP as a sister of a transitive verb (in the case of Korean, in this sentence, to give a comparative viewpoint given, the LCA-type approach is applied in which starts from VO order), moves to the subject position, i.e., argument position. Therefore, it can be said that the passivization sentences among these languages can be generalized by *argument movement* rule with which the semantic relation among elements is discovered cross-linguistically. Consequently, the rule to which is applied meets not only the *descriptive adequacy* but also *explanatory adequacy* and thus the *argument movement* can be a UG principle. Government-Binding theory introduces that UG consists of seven principles:

(11) UG principles

    a. X-bar Theory

    b. Government Theory

    c. θ-Theory

    d. Case Theory

    e. Binding Theory

    f. Control Theory

    g. Movement Theory (Move-α: Argument, Operator, and Head movement)

[from Chomsky 1981a:5]

The UG principle mentioned above is a symbol of the system of human innate *Language Faculty* (FL henceforth) found in numerous studies by many linguists and this is the ultimate goal for generative grammar research. The advantage of UG principle is that it has the simplicity and brevity of being able to account for the various language phenomena with one UG principle.

(i) Case Filter: *NP if NP has phonetic content and has no Case.

[from Chomsky 1981:49]

FL is assumed to be a part of the human mind/brain that is particularly involved in the knowledge and use of language. This interacts with other systems and consists of two divisions.

(12) Components of the FL

a. A cognitive system (internal system) < lexical component
computational system

b. Performance systems (external system) < articulation
interpretation, perception
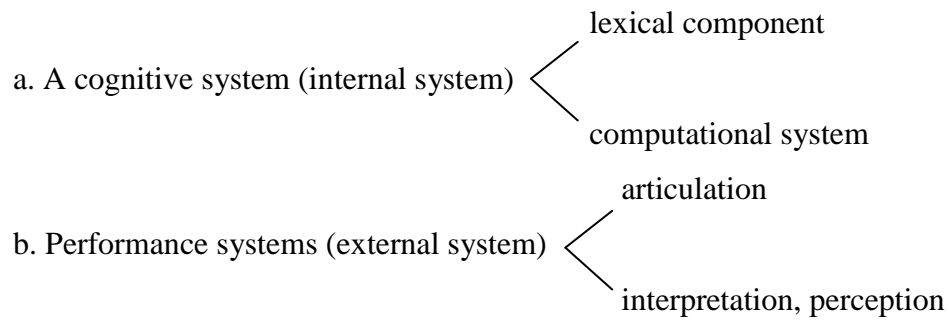
The core of FL is the cognitive system, which is further divided into two parts: the lexical component and the computational system, respectively. A dictionary is a collection of fundamental elements that forms a linguistic expression, and the computational system is a collection of generative operations that produce a linguistic expression based on the lexical items. As for the performance system, it can be said that this system only plays a role in carrying out the linguistic expression formed by the cognitive system. Thus, the cognitive system of FL is referred to as an "internal system" and the performance system as an "external system", respectively. In FL, the internal system is an abstract capacity, whereas the external system is relevant for our organic system. In the latter case, it is the capacity that allows linguistic expressions to be used in practice to perform various linguistic actions such as articulation, perception, interpretation, questioning, and thinking.

Acquiring a **language-L** (for example, Spanish) for an individual person (e.g., María) from childhood to adulthood is required to a series of the process with the above-mentioned systems. The ideal language acquisition model set up in **Principle & Parameter** (P&P henceforth) theory is that UG is genetically determined FL of the initial state ($=S_0$) and parameters are established through various linguistic experience in language L (i.e. Spanish) environment, and these changes relatively reach a steady-state ($=Ss$). That is to say, a steady-state ($=Ss$) is the same concept as in the L-state. At this point, the language L (i.e. Spanish) in a steady-state ($=Ss$) of an individual (María) whose influence on socio-cultural,

geographical and historical factors which is influenced outside the FL becomes the so-called "**language**" of the final meaning.

Chomsky (1965) argues that in discussing the concept of "**language**", two concepts between *linguistic competence* and *linguistic performance* should be distinguished. Linguistic competence is the FL that exists in our brain/mind and linguistic performance is the act of speaking. In this regard, in generative grammar, the two concepts are commonly noted as links to Internal-language (**I-language**) and External-language (**E-language**). I-language is the FL inherited by all human beings and this part is the purpose that a linguistic theory examines, as noted earlier. The opposite concept of I-language is the E-language, which is the entire articulation (Bloomfield 1928) that comes from the results of the linguistic performance, that is, outside the brain/mind (Chomsky 1986a). Consequently, I-language can be conceived of as UG, ultimately, the generative grammar is also the field of studying and verifying this I-language. In other words, an I-language is a manifestation of UG, not UG itself.

UG (or I-language) of a FL is divided into an **invariant principle part** that does not respond to changes in the linguistic environment (i.e. Ss) and a **variation part** that change according to the change in the linguistic environment (i.e. S_0). This variation parts are called **parameter**. An individual language (grammar) or L-language can be seen as a language faculty with a fixed value of this parameter. Thus, UG and parameter are not different concepts. UG is parametrized in the process that an individual person acquires L-language. In P&P theory, it introduces that the **parameters** are already **built-in UG**. The linguistic typology we investigated in Chapter 2 can be the consequence of the parameterized L-language.

(13)

$$\text{UG}$$

| UG in initial state ($=S_0$) | Parametrized UG in steady-state ($=Ss$) $\rightarrow$ L-language |
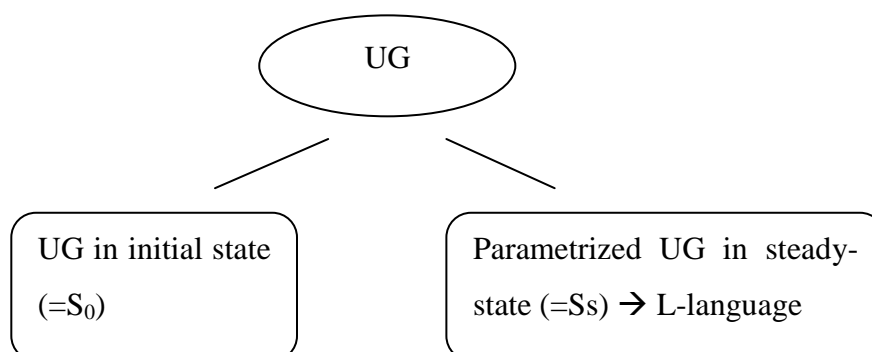
P&P approach endorses that the process of acquiring a mother tongue of a child is the same as the process of UG reaching *core grammar*. Since the various core grammars can be generated by assigning + or − values to each *parameter* that is already set in UG, it is assumed that the child has a fast acquisition of native language. In other words, it is possible to quickly switch to the core grammar when a parameter value is given in UG. A prominent property in a steady-state of the language-L is the "**infinite use of finite means**", as Wilhelm von Humboldt said. The term "finite means" here implies "grammar" or "UG" and also the use of a "particular finite means" becomes a "specific grammar" in a language-L. Thus, a grammar generated by finite means is a generative procedure, and a language acquired by an individual person is the whole array of the phonetic, semantic and syntactic properties of a particular linguistic expression produced by this generative procedure.

The following briefly summarizes the various types of parameters addressed in this dissertation: head parameter, functional projections; D (determiner), AGR (agreement), T (tense), C (complementizer), pro-drop parameter, and (non) configuration parameter, etc.:

(14) Sub-types of syntactic parameters:

    a. Head parameter →OV vs. VO, preposition vs. postposition, etc.

    b. Functional projection (D, AGR, T, C) → subject-verb agreement (triggering verb movement), A/A'-movement, (non) article language,

    c. Configuration vs. non-configuration parameter → scrambling

    d. *pro*-drop vs. non-*pro*-drop parameter → (non) obligatory subject language

These parameters can function as a subsystem in the large-scale distinct parameters between *macro-parameters* and *micro-parameters* as indicated by Baker (2008) (cf. Gallego 2011 for briefly summarized version). For instance, the head parameter or configuration parameter yield large-scale consequences, which is not genetically or typologically close language group such as head-initial language vs. head-final language and scrambling vs. non-scrambling language. In the case of pro-drop parameter, this setting produces relatively tiny-scale differences, for instance, an obligatory subject language in French and non-obligatory subject language in Spanish, they are in the same Romance language group though.

The **left periphery elements** we are discussing in this work are related to **functional category C**, and including wh-movement as in (15c), the topicalization and focalization

bearing discourse effect through the movement of elements (i.e., topics/ focus) to Spec-C (in other words, changing the word order) appear, as shown in the data (15a) and (15b). The precise position can be graphically confirmed in (17), in the case of Spanish.

(15) a. El Quijote   prestó   el burro   a Sancho. (canonical word order)

    The Quixote   lent   the donkey   to Sancho.

   b. A Sancho   le   prestó   el Quijote el burro. (Topicalization)

    to Sancho   to him-CL   lent   the Quixote   the donkey

   c. A SANCHO prestó el Quijote el burro. (y no a Dulcinea) (Focalization)

    TO SANCHO   lent   the Quixote   the donkey   (not to Dulcinea)

   d. ¿A quién prestó el Quijote el burro? (wh-movement)

    To whom   lent   the Quixote   the donkey?

    'To whom did Don Quixote lend the donkey?'

Given that Rizzi (1997)'s **cartographic approach** is an **universal functional category** rather than a parametric system that appears only in certain languages, focus and wh-elements in **Korean** should be realized in the C system, but as we can see below and the tree diagram, **this is not the case**.

(16) a. Totoro-ga   dodoti-leul   May-ege   jueoss-da. (canonical word order)

    Totoro-NOM   acorn-ACC   May-DAT   gave-D.

   b. May-ege-neun   Totoro-ga   dotori-leul   jueoss-da. (Topicalization)

    May-DAT-TOP   Totoro-NOM   acorn-ACC   gave-D.

   c. Totoro-ga   MAY-EGE-NEUN dotori-leul jueoss-da. (appa-ege ani-go) (Foc-in-situ)

    Totoro-NOM   MAY-DAT-CF   acorn-ACC   gave-D.   (father-to no)

   d. Totoro-ga   Nu-gu-ege   dotori-leul   jueoss-ni? (wh-in-situ)
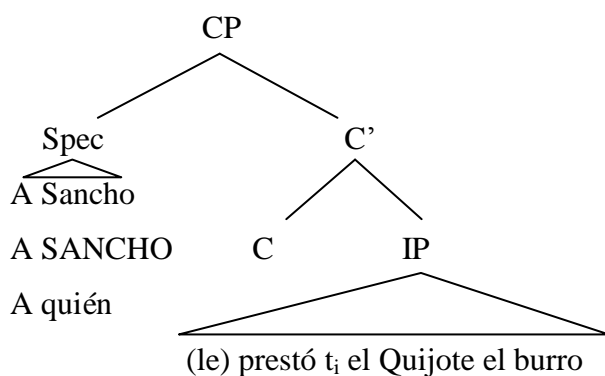
    Totoro-NOM   who-DAT   acorn-ACC   gave-Q?
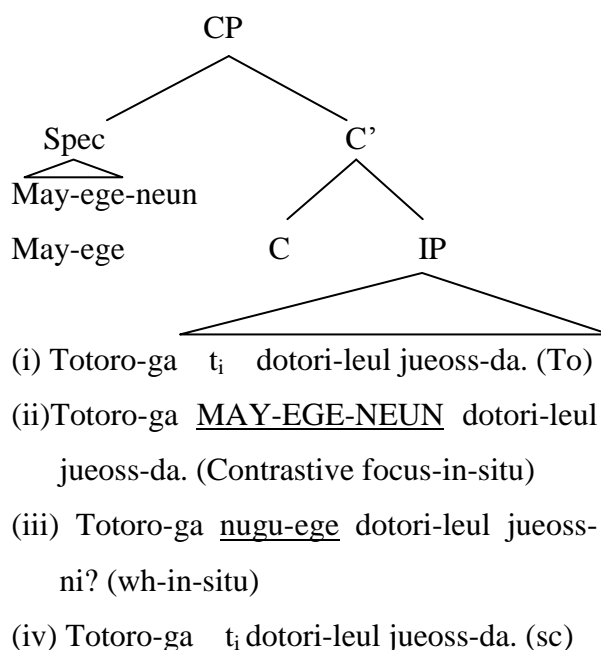
    'To whom did Totoro give the acorn?'

   e. May-ege   Totoro-ga   dotori-leul   jueoss-da. (scrambling)

    May-DAT   Totoro-NOM   acorn-ACC   gave-D.

(17) a. Spanish   b. Korean

```
            CP                                            CP
          /    \                                        /    \
      Spec      C'                                  Spec      C'
      /\                                            /\
  A Sancho                                    May-ege-neun
  A SANCHO    C      IP                       May-ege      C      IP
  A quién        /      \                                      /      \
         (le) prestó tᵢ el Quijote el burro
```

A Sancho

A SANCHO   C   IP

A quién

(le) prestó t_i el Quijote el burro

May-ege-neun

May-ege   C   IP

(i) Totoro-ga t_i dotori-leul jueoss-da. (To)

(ii) Totoro-ga <u>MAY-EGE-NEUN</u> dotori-leul jueoss-da. (Contrastive focus-in-situ)

(iii) Totoro-ga <u>nugu-ege</u> dotori-leul jueoss-ni? (wh-in-situ)

(iv) Totoro-ga t_i dotori-leul jueoss-da. (sc)

5.3. Types of Left Periphery parameters

In this section, variations within the left periphery to which phonological, morphological, and syntactic parameters are applied, will be discussed.

5.3.1. Morphological parameters

Comparing Spanish with Korean, the most noticeable difference in these two languages is in lexicon items: topic marker *–neun*, focus marker *–leul* (case markers), and Q-morpheme *–ni*. Thus, we can assume that the parameters that can be applied in topic, focus and interrogation are attributed to the lexicon. In Borer (1984), the idiosyncratic properties of lexical items would give rise to interlanguage variation. Indeed, in other languages, the discourse effect is not realized in the C system, but the morpheme itself works in-situ bearing discourse meanings, as shown in (15). In other words, no syntactic approach is necessary.

(18) **Morphologically dependent approach**

    a. Ik week   niet [wie   *of*   [Jan ____ gezien heeft]] (Dutch varieties, Haegeman 1996)

       I   know   not   who **Q** Jan   seen   has

    b. Un sè   [do [dan   lo **yà** [Koh hu   ì]]]   (Gungbe, Aboh 2004)

       I   heard   that snake the **TOP** Koh killed it

    c. Un sè   [do [dan   lo **wè** [Koh hu ____]]]   (Gungbe, Aboh 2004)

I   heard   that snake the **FOC**   Koh killed

An analysis which morphology are properly applied to syntax as a parameter is found in Gallego (2010), where left periphery can be activated by verb movement based on the morphological richness (i.e., fused features such as tense and modal) in verbs of Spanish. The gist of this proposal is that morphological properties give rise to movement operation, which enables left periphery to be activated and the sentence to acquire pragmatic effects by this movement operation.

(19) **Syntax – morphology approach**

    a. Luis   dice   que, **los libros$_i$**, ya   los$_i$ leyó.   (Spanish)

       Luis   say-3.SG that   the books   already CL-them   read-PST-3.SG

    'Luis says that the books he already read.'

    b. Luis   dice   que **CERVEZA** ha   bebido (y no sidra).

       Luis   say-3.SG that   BEER   have-3.SG   drunk (and not cider)

    'Luis says that BEER he has drunk.'

    c. Vi   a Luis   leyendo los libros.

       see-PST-1.SG   to Luis   reading the books

    'I saw Luis reading the books'.

(20) a. $^{??}$Luis quiere,   los libros$_i$, **leer**los$_i$.   (Spanish)

       Luis want-3.SG   the books   read-INF-CL-them

    'Luis wants the books to read them'.

    b. *Luis quiere   CERVEZA **beber** (y no sidra).

       Luis   want-3.SG   BEER   drink-INF (and not cider)

    'Luis wants BEER to drink (and not cider)

    c.*Vi   a Luis, los libros, **leyéndo**los.

       see-PST-1.SG   to Luis,   the books,   reading-them

    'I saw Luis the books reading them'.

[from Gallego 2010: 146-147]

Focusing on the examples of (20), the topicalization and focalization are not allowed when the verb is infinitival (leer: read, beber: drink) and gerunds (leyéndo: reading), contrary to the

examples of (19), in which the verbs are tensed. In other words, the left periphery is activated depending on the form of verbs. Thus, a syntax-pragmatics enconding projection can be formed based on the morphological properties under this approach.

Analysis with the syntax-morphology parametric approach is also found in the interrogation of Korean. As we have seen in the previous chapter, wh-elements remain in place and the sentence should be Q-morpheme marked to be an interrogation. This is because the wh-word itself has two meanings (indefinite pronouns and interrogators) (c.f. Nishigauchi 1990, Kuroda 1965 for Japanese). Cheung (2003) suggests that the reason that no wh-movement occurs is that the C-part is already occupied by the complementizer Q-morpheme with [+wh] and in turn the wh-elements are blocked by the Q-particle (Baker 1970, Kayne 1994, Cheng 2003), as shown in (22b) (word order irrelevant). Another kind of Q-complementizer *-ji* (Eng. whether) also appear in the embedded clause as shown in (22a-b) (Abbreviations: REL(relativizer), Q (question particle)):

(21) a. Totoro-ga   mueos-eul   gajyeoga-**ni**?   (Korean)

       Totoro-NOM   what-ACC   take-Q

   b. [$_{CP}$ -**ni**   [$_C$ [$_{TP}$ [$_{vP}$ Totoro-ga [$_{VP}$ **mueos**-eul   take-]]]]]]

(22) a. Neo-neun   [Totoro-ga   **mueos**-eul gajyeoga-neun-**ji**]   a-**ni**?

     You-TOP   Totoro -NOM   what-ACC   take-REL-Q   know-Q

    'Do you know Totoro takes what?' /#'Do you know Totoro take something?'

   b. [$_{CP}$ -**ji**   [$_C$ [$_{TP}$ [$_{vP}$ Totoro-ga   [$_{VP}$ **mueos**-eul   take-]]]]]]

This approach is possible to provide an accounts of the *wh*-element in-situ phenomenon by relating with Q-morpheme under X-bar theory (i.e. under *Spec-Head Configuration*). Put differently, the wh-word, which has the indefinite pronoun meaning can only be interpreted as a question when the indefinite pronouns are c-commanded by a Q-morpheme.

(23) A Q-morpheme must be in Spec- head configuration with a wh-phrase[83].

---

[83] Pesetsky (1987, 1989) argues that D-linked wh-phrase, which does not shows Superiority Condition (Chomsky 1973) in multiple questions is related to the Q-morpheme. In other words, in wh-movement languages, an invisible Q-morpheme in CP-position is assumed. This hypothesis setting makes the sub-

Among the various approaches to the wh-in-situ analysis, in addition to the syntax-morphology approach, there is an analysis that attempts to pursue a **phonological** perspective. Capitalizing on the copy theory of movement (Chomsky 1995), there is a syntax-phonology approach in which only one of the two copies (i..e., chain) created by movement is pronounced and the other is elided.

(24) a. Which book did John buy ~~which book~~?   (Higher copy *wh*-word at PF)

    b. ~~mueos-eul~~   Totoro-ga   mueos-eul   gajyeoga-ni? (Lower copy *wh*-word at PF)

        what-ACC   Totoro-NOM   what-ACC   take-Q

    'What does Totoro take?'

In the case of wh-in-situ as in (24b), the moved *wh*-words to Spec-CP through *wh*-operator are elided as the higher copy and its lower copy is only pronounced at PF (Chomsky 2004, Pesetsky 2000) contrary to English.

(25) Lower copy *wh*-words at PF

    ~~*mueos*~~ C^0 $_{[+Q]}$ ….. *mueos* (what)

                Move

In addition, many fruitful hypotheses such as covert movement, feature movement, and agreement system have been proposed to enable wh-in-situ and wh-movement to be analyzed in one system: (i) in (26), *wh*-in-situ languages undergo *wh*-movement covertly or in LF triggered by *wh*-operators (and need to bind a variable) in CP-area (Huang 1982), (ii) in (27), an in-situ *wh*-words do not undergo movement, but only the formal features of *wh*-words move to C^0 (Chomsky 1995), and (iii) the feature [+wh] of in-situ *wh*-elements is licensed in Agree relation (Chomsky 2000, 2001), as illustrated in (28):

(26) Covert *wh*-words movement

    mueos C^0 $_{[+Q]}$ ….. *mueos* (what)

              LF Move

---

extraction of wh-phrases from islands and long-distance scrambling possible (Boeckx & Grohmann 2004)

(27) Feature movement

FF (*mueos*)- $C^0_{[+Q]}$ ….. *mueos* (what)
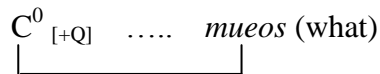
FF Move

(28) Agree

$C^0_{[+Q]}$ ….. *mueos* (what)
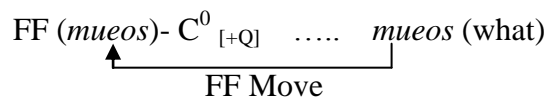
This kind of parameter setting allows both word orders in *wh*-in-situ and *wh*-movement to be compatible.

5.3.2. Phonological parameter

In addition to discussed parameters in the previous section, it is also worth considering the fact that the movement at which a constituent is dislocated is determined by the operation of Spell-out or PF.

Richards (2010) proposes a restriction that linearization is not determined in syntax, if two or more objects (e.g. multiple XPs) are located in the same domain. This condition on the linearization is inspired by Kayne (1994)'s LCA. Richards (2010) calls this '*Disntinctness*' in the sense that the multiple objects of the same unit must be distinguished and the ordering is established among them.

(29) Distinctness

If a linearization statement <α, α> is generated, the derivation crashes.

[from Richards 2010: 5(5)]

As can be seen in (30a), two DPs are in the same domain yielding a linearinzation statement <DP, DP> and thus the derivation crashes in accordance with the rule (29). Since they should be linearized with respect to each other, the preposition 'of', whereby makes phase boundary that allows two DPs to be distinguished, saves the violation of Distinctness rule (see Richards (2010: 71) for the detailed tree diagram).

(30) a. *[DP the destruction [DP the city]]   (English)

b. [DP the destruction [of the city]]

[from Richards 2010: 54(114)]

This methodology to avoid a Distinctness violation is found in many languages such as Chaha and Spanish. These two languages exploit case particles when two DPs share the same features such as [±anymacy]. As shown in (31) and (32a), the feature [+inanimate] of two DPs has in common, and thus the accusative case markers 'yə' in Chaha and 'a' in Spanish, which are generally referred to as Differential Case Marking, are introduced to give a Distinctness between two DPs. According to his account, in the case of (32b), the reason that no 'a' is needed is that null pronoun DP 'they' and another DP 'el dinero' (Eng. the money) are already distinguished as [animante] and [inanimate].

(31) yə-βet wəka   (Chaha)

    yə-house roof.beam

    'the house's roof-beam

[from Richards 2010: 55(116)]

(32) a. Su amor al dinero   (Spanish)

      his love a-the money

      'His love of money.'

    b. Aman (*a) el dinero

      they.love a the money

      'They love money.'

[from Richards 2010: ibid.(117)]

This strategy can also be found in the multiple case constructions of Korean. It is generally assumed in this case that the higher nominative DP 'Nae-ga' (En. I-Nom) undergoes A' movement to a higher position (i.e., Spec-CP). According to him, this A'-movement gives Distinctness making phase boundary between the two DPs. However, I would like to approach it a bit differently. As shown in (33a) and (33b), the linearization statement must be <Nae, Totoro> not <Totoro, Nae> to mean 'I like Totoro'. If 'Totoro' is dislocated, it does not have the intended meaning, rather is closer to the meaning of 'Totoro likes me'. Since Korean allows 'Case Drop', meaning is conveyed even if the 'Totoro' receiving the 'thematic role' without the case marker. If 'Totoro' is scrambled, it should be ill-formed as in (33b), but the 'theta role' of two DPs is clearly distinguished by being indicated the nominative case marker '-ga' on one of the two DPs. Therefore, the rule (29) also gives semantic (or thematic role) distinctness of two multiple case DPs.

(33) a. Nae-ga   Totoro-ga   jogda.   (Korean)

      I-NOM   Totoro-NOM   be fond of

    'I am fond of Totoro.'

  b. *Totoro-ga$_i$ nae-ga   t$_i$ jogda.

      Totoro-NOM   I-NOM   be fond of.

  c. Nae-**ga**   Totoro   jogda.

  d. Totoro$_i$ nae-**ga**   t$_i$ jogda.

The same holds for the multiple nominative case constructions derived from possessive. The DP 'Picasso' undergoes movement to the higher projection once more from lower projection DP, in which is placed with another DP in the same domain as seen in (34b). In this case, it is generally assumed that the nominative case marked DP moves further more to CP after receiving the nominative case in T due to the fact that the adverb 'sometimes' can be introduced in TP. It is referred to as Possessor-Raising. As a consequence, Distinctness condition triggers Possessor-Raising and hence the multiple case phrase in the left periphery is newly created.

(34) a. [$_{TP}$ [$_{DP}$ Picasso-ui$_i$ (*jongjong) [$_{DP}$ t$_i$ chingu-ga]$_j$ jaki-ui$_{j,*I}$ geulim-eul seonmulhanda.

      Picasso-GEN   sometimes   friend-NOM   self-GEN   picture-ACC present.

   'Picasso's$_i$ (*sometimes) friend$_j$ presents self's$_{j,*i}$ picture.'

  b. [$_{CP}$ Picasso-ga$_i$ [$_{TP}$ t$_i$ (jongjong) [$_{DP}$ t$_i$ chingu-ga]$_j$ jaki-ui$_{j,i}$ geulim-eul seonmulhanda.

      Picasso-NOM   sometimes   friend-NOM   self-GEN   picture-ACC present.

   'Picasso$_i$, his friend$_j$ sometimes presents self's$_{j,i}$ picture.'

                                          [adapted from Yang 2005: 1(2a,b)]

Another advantage of Distinctness is that it accounts for the phenomenon of subject-verb complex inversion in interrogations of Spanish.

(35) a. ¿Qué vio Juan en Buenos Aires?   (Spanish)

      what saw-3sg Juan in Buenos Aires

    'What did Juan see in Buenos Aires?'

  b. *¿Qué Juan vio en Buenos Aires?

                                        [from Richards 2010: 79(168)]

The reason why the derivation of (35b) crashes is that both 'Qué' and 'Juan' are treated as the same DP, so if they are located in the same Spell-out domain as in (35b), their linearization remains undetermined. In this case, we can predict that the subject raising 'Juan' is blocked to avoid a distinctness violation and verb movement from T to C occurs (In general, it can be analyzed that T-C movement is induced by the various reasons[84].

(36)
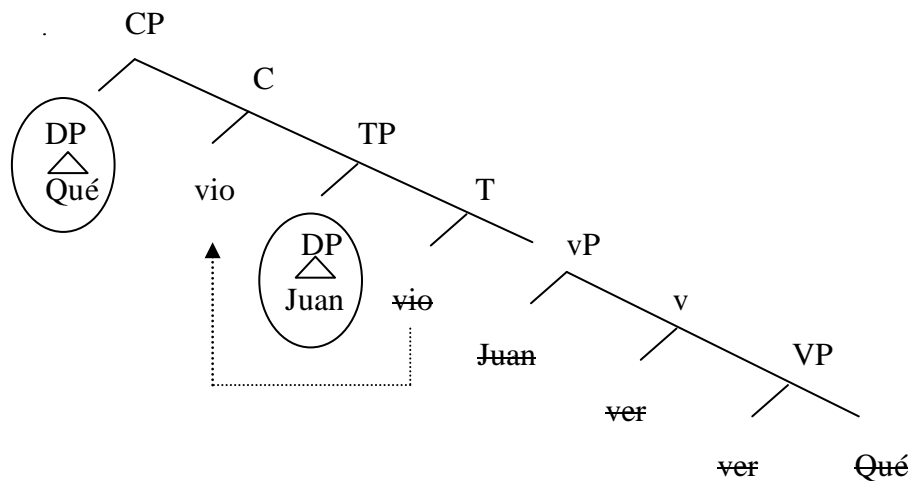
However, as can be seen in his analysis, a lot of ancillary features considering the semantic or morphological properties found in natural languages should be assumed, which may cause more computational complexity in syntax.

Next, I would liket provide the Spanish data that is applied to **Multiple Spell-out hypothesis**, which is in similar line with Distinctness as a phonological parameter, linking to the left periphery. Nunes & Uriagereka (2000) modifies Kayne's (1994) LCA, in which subject and adjuncts are not distinguished, as follows:

(37) (Revised) Linear Correspondence Axiom:

---

[84] In fact, the analysis proposed above is different from Richards (2010)'s account. Richard (2010) put forwards that the feature [±animate] determines whether a Distinctness effect appears or not. In (35), according to his account, the wh-fronting of an inanimate wh-phrase gives rise to Distinctness effect, and it triggers subject-verb inversion to escape a Distinctness violation. In Richards (2010), one of the main factors for giving the Distinctness effect is the features setting such as [animate] and [inanimate]. Nonetheless, I maintain the analysis that a Distinctness condition prevent the subject rising and the subject verb inversion displays due to the rich T-C cluster in Spanish following Uriagereka and Gallego, as the analysis presented above.

"A lexical item α precedes a lexical item β iff α asymmetrically c-commands β"

[from Nunes & Uriagereka 2006: 6]

Nunes & Uriagereka (2000) suggest that lexical item within adjuncted phrases and Specifiers of a head are first materialized (i.e., Spell-out) in a separate derivation process, transferred to the interface, and then only the final label is merged with the head. Also, under this hypothesis, lexical items of subjects and adjuncts, which have undergone Spell-out prior to merging with v* canno access operations after merging with v*. In other words, subjects and adjuncts are already opaque to sub-extraction at the time they are merged (see Jurka 2010:15 for the detailed explanation for English data).

The **Multiple Spell-out** hypothesis provides an account for the ungrammaticality of the following CLLD construction in Spanish that violates the subject island constratins.

(38) *a. Esos zapatos, [que se los pusiera] causó un escándalo. (Spanish)

      those shoes   that himself-Cl them-Cl   wore-3SG   caused-3SG   a   scandal

    'Those shoes, that he wore (them) caused a scandal.'

[from Rubio Alacalá 2014: 112]

b.
```
                        v*P
                  _____|_____
                 CP           v*'
              ___|___       ___|___
             DP     C'     v*     VP
             |    __|__     |    __|__
        esos zapatos        causó
                  C    TP   V    V   DP
                  |   __|__      |  __|__
                 que se los    causó un escándalo
                     pusiera
```
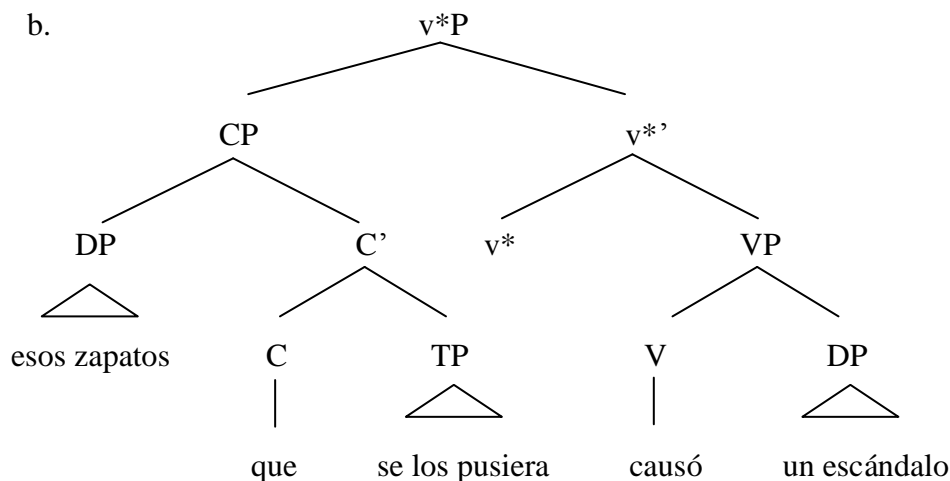
Given the revised LCA version, lexical items within CP cannot form a linear order relationship with the verb 'causó'. Thus, the subject CP is materialzed before merging with v* so that only its final level, 'que' remains in v*. Due to this, in (38a), if the subject element 'esos zapatos' within the subject-CP moves out of it, the derivation crashes. As a consequence, the **Multiple spell-out hypothesis can explain** why the topicalization from

pre-verbal position in Spanish is ill-formed. However, this hypothesis can not provide a proper account for the sub-extracted topicalization from post-verbal position in Spanish, since its basic structure is the same as the pre-verbal construction as in (38b).

(39) a. ?Esos zapatos causó un escádalo [que se los pusiera].

　　　those shoes caused-3-sg a scandal that cl-himself cl-them wore-3sg-

　　　Those shoes, that the wore (them) caused a scandal.'

[from Rubio Alacalá 2014: 111]

In this context, traditional analyses should then be examined to see whether syntactic operations within the left periphery can be applied equally to languages which are typologically different. For this reason, in the next section we review the syntactic approach with respect to left peripheral elements that have been addressed in both languages, and then our proposals will be suggested building on this discussion.

5.3.3. Syntactic parameters

In the previous section, we have covered the concept of parameters and UG and, based on them, various parametric approaches such as morphological and phonological strategies were discussed. In this section, we delve into the syntactic approaches to wh-phrases, topic, (fronted) focus, and (long-distance) scrambling (in the case of Korean) that are considered left peripheral elements in the CP-area: movement vs. base generation and movement vs. LF movement. as well as MERGE operation In the final section, the syntactic behavior of Internal Merge and FinP approach will be finally emphasized as an integrated system between two languages. In this context, the interface of semantic representation SEM and a phonetic representation PHON in our proposal is also considered. The approach that objects constructed by syntactic operation mapped onto the <SEM, PHON> with respect to the left periphery may provide accounts for the cross-linguistic variations that are difficult to generalize as one principle. Therefore, I follows the assumption that variations found in cross-languages can be optimized in the C-I interface[85].

In Chomsky, Gallego and Ott (2019), the same flow in their discussions holds. That is, the pragmatic effects start from the core-syntax part by the displacement operation and, in turn,

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[85] Chomsky (2014)

　I-language is optimized relative to the C-I interface alone, with EXT ancillary.

sentences formed by syntactic principles are expressed in the most optimal representation in the C-I interface. Therefore, it can be concluded that a sentence or an element bearing semantic effects is an effect that appears naturally by means of the syntactically set system without leaning on the lexicon such as particle *-wa* (In Jap.), *-neun* (In Kor.). As I mentioned in Chap. 1, **MERGE,** which is defined as the simplest computational system consisting of the pair system **'External Merge'** and '**Internal Merge'**, refinforces the persuasion for non-parametric approach. Rizzi (1997 et seq.)'s Cartography is a proposed idea based on this motif, and our discussion will also be discussed on the basis of templatic base, not non-templatic base. In Cartography, wh-phrases, focus, and topic have a semantic/pragmatic effects by means of the dislocation, and their landing site is CP-domain. In other words, CP, which is hard-wired system in core-syntax as a templatic base, is a part that gives discourse effect connected to the previous sentence. In the literature, there have been long discussions that this discourse effect is attributable to whether the dislocated constituent is **base-generated** in CP (Cinque 1990) **or** whether it undergoes **movement** to that position (Rizzi 1997 et seq.). In the case of topicalization in Spanish, co-referential pronouns (i.e. Clitics) appear with base-generated or dislocated constituents. In the case of topicalization in Korean, contrary to Spanish, it has been assumed that topicalization in Korean is base-generated since sub-extraction of *–neun* marked elements is considerably free from island environments and appearance of resumptive pronouns (Scrambled elements, i.e., case marked elements such as '–i/-ga' for nominative and '-leul' for accusative, allows the appearance of resumptive pronouns, but in this case, sentences become unnatural). Therefore, in Korean, null *pro* is generally assumed as follows comparing to clitics in Spanish:

(40) a. [$_{CP}$ α] … Cl t(α)　　→ movement (Spanish CLLD Topicalization)

　　b. [$_{CP}$ α] … Cl　　　→ base generation

(41) a. [$_{CP}$ α$_{-neun}$] … pro$_i$ t(α)　→ movement (Korean *-neun* marked Topicalization)

　　b. [$_{CP}$ α$_{i-neun}$] … pro$_i$　　→ base generation

[adapted from López 2009: 214]

Within the Cartographic Project, the existence of so-called, Criteria on which the movement hypothesis is based is stipulated. That is to saa, the pragmatic features such as "topic" and "focus" and the "wh" feature [+wh] trigger the movement of constituents:

(42) The Wh-Criterion

    a. A wh-operator must be in a Spec-head configuration with a $X^0_{[+wh]}$.

    b. An $X^0_{[+wh]}$ must be in Spec-Head agreement with a wh-operator.

<div align="right">[from Rizzi 1996: 64]</div>

a.

              CP
          /   \
    Spec   C'
           / \
     Head … vP
     [+wh]   wh-word [+wh]

b.

           TopP/FocP
          /   \
    Spec   Top'/Foc
           / \
     Head …vP
  [+topic]/[+focus] complement

      [Wh-Criterion]   [Topic/Focus-Criterion]
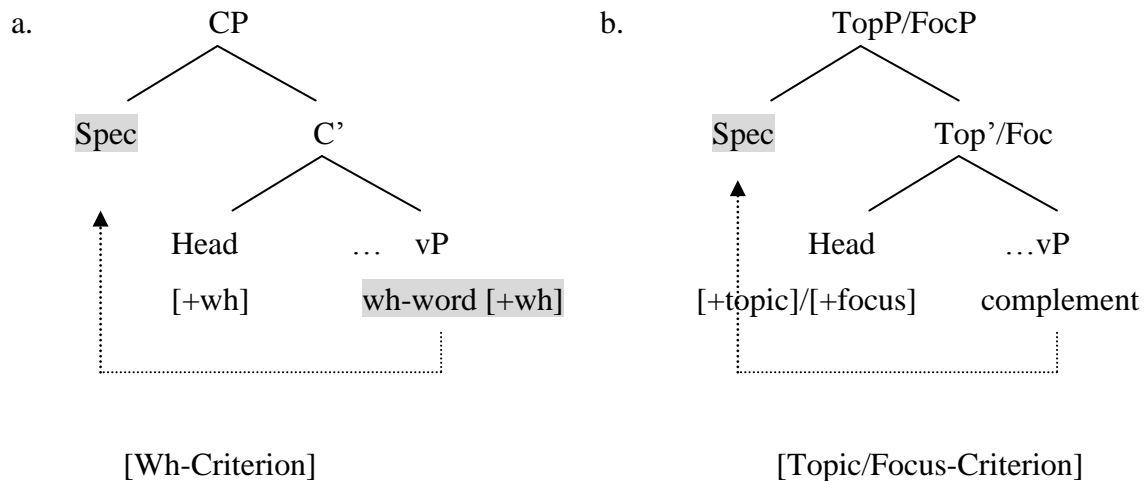
In the literature, the properties revealed in wh-movement have been exploited as a diagnosis for movement phenomena.

(43) Diagnosis for **Movement Hypothesis**:

    a. Strong Island / Weak Island (RM)

    b. Strong Cross-Over effect/ Weak Cross-Over effect

    c. Parasitic gap

As discovered by Ross (1967), islands have been used to diagnose certain operations as movement. Islands constraints are conditions that when a component within Subject, Complex NP, and Adjuncts phrases, etc. moves out from it, the clauses are ill-formed. Rizzi (1990) re-distinguishes these island constraints into "Strong Island" such as *Complex NP Consraint*[86] (henceforth CNPC) and *Adjunct Constraint* (henceforth AC) and "Weak Island" such as *wh-island*. The strong island constraints prohibit the extraction of arguments and adjuncts from its domain as in (31a) and (31b), respectively.

---

[86] Ross (1967: 70): The Complex NP Constraint:

  No element constained in a sentence dominated by a noun phrase with a lexical head noun may be moved out of that noun phrase by a transformation.

(44) a. *Which acorn$_i$ did May find [$_{NP}$ a person [$_{CP}$ who took [$_{NP}$ t]]?

Complex NP Consraint

b. *Which acorn$_i$ did May cry [$_{PP}$ after Totoro took t]? (AC)

Adjunct Constraint

It has been generally observed that CLLD topicalization in Spanish is subject to the strong island constraints like wh-phrases. Given that the CLLD and wh-phrase construction have strong islands effects, the inferred wh-phrases on the basis of CLLD data of Suñer (2006) are as follows (33).

(45) CLLD topicalization in Spanish

a. *A   Mara$_{i,}$ Pepe conoció [$_{NP}$ al muchacho que la quiere [$_{NP}$ t].   (CNPC)

   A$_{-ACC}$ who   Pepe met-$_{3-sg}$ the guy   that her$_{-Cl}$ loves-$_{3.sg}$

   'Mara$_i$, Pepe did meet the boy he loves (her).'

b. *A   su hija$_i$,   Pepe   comía   [$_{PP}$ mientras   la   rebata t_i].   (AC)

   A$_{-ACC}$ his daughter Pepe   was eating-$_{3.sg}$ while   her$_{-Cl}$ was scolding-$_{3.sg}$

   'His daughter$_{i,}$ Pepe was eating while was scolding (her).'

[from Suñer 2006: 135-136]

(46) Wh-movement in Spanish

a. *¿A   quién$_i$ conoció Pepe [$_{NP}$ al muchacho que quiere [$_{NP}$ t]? (CNPC)

   A$_{-ACC}$ who   met-$_{3-sg}$ Pepe   the guy   that loves-$_{3.sg}$

   'Who$_i$ did Pepe meet the boy he loves t_i?'

b. *¿A   quién$_i$ comía   Pepe [$_{PP}$ mientras rebata t_i]?   (AC)

   A$_{-ACC}$ who   was eating-$_{3.sg}$ Pepe   while (he/her) was scolding-$_{3.sg}$

   'Who$_i$ was Pepe eating while (he/her)$_i$ was scolding t_i?'

In Korean, it is rather complicated to define whether wh-phrase is sensitive to strong islands in overt syntax as in English and Spanish. The following is the interpreted version in Korean of the sentence (44) in English:

(47) Wh-movement (scrambling) in Korean

a. ??eotteon dotori-leul$_i$ May-neun   [$_{CP}$ t_i juwu]-n]]   [$_{NP}$ saram-leul]]]] chat-ass-ni?

which　acorn-ACC　　May-TOP　　took-that　　　person-ACC find-PAS-Q

(CNPC)

b. ??eotteon dotori-leul_i May-neun　[_{PP} Totoro-ga　　t_i　gajyogan-hue]] ul-eoss-ni?
which acorn-ACC　　May-TOP　　　Totoro-NOM　　took-after　　cry-PST-Q

(AC)

As seen in (47), the strong island effect appears in wh-scrambling of Korean as in Spanish and English, It woud be more appropriate to call as wh-scrambling case than wh-phrase than wh-movement, in this case (i.e., all scrambled DPs or NPs in Korean are sensitive to strong island). For proper one-to-one comparison with Spanish, if we need to discuss whether there display strong island constraints that are specific to the wh-words, we should rather focus on the position of question markers (i.e., Q-morpheme) than wh-phrases. In Chapter 3 (the data (26) and (27)), there was an analysis that island effects display in LF level, which is called wh(-LF)-island constraint. I repeat it here to remind.

(27) a. Island/ Non-wh-extraction

　　Neo-neun [Yeji-ga　**nugu-leul**　manna-ss**-neunji**] deul-eoss**-ni**?
　　You-TOP　[Y-NOM who-ACC meet-PST-whether] hear-PST-Q?
　　(i) ??Who did you hear whether Yeji met? (with a wh-Q intontation)
　　(ii) Did you hear who Yeji met? (with a Y/N-Q intonation)

　b. Island/ wh-extraction

　Nugu-leul　neo-neun　[Yeji-ga　t　manna-ss**-neunji**] deul-eoss**-ni**?
　who-ACC　You-TOP　Y-NOM　　　meet-PST-whether] hear-PST-Q?
　(i) Who did you hear whether Yeji met? (with a wh-Q intontation)
　(ii) ??Did you hear who Yeji met? (with a Y/N-Q intonation)

[from Cho 2017:331(8)]

As shown in (27), the wh-phrases matching with the position of the question markers within the wh-island environment are subject to island constraints on the interpretations. That is to say, the Q-morpheme's behavior is more important than wh-words in determining wh-island constraints. As we studied ealier, assuming that the interrogative forms an operator-variable

chain, it is regarded that each Q-morpheme is an operator and a wh-phrase is a variable. The reading constraints appear in semantic part depending on the position of Q-morpheme (or dependin on the features of question marker [±wh], as suggested by Choe (1995)). There will be again the discussion of this issue, later.

Now, let us consider the weak island effects. In the case of weak island effects, some phrases can be relatively extracted compared to Strong islands in wh-phrase.

(48) a. ?Where did John ask <whether to put/read this book ___>? (Weak)

   b. *What did John ask <whether these pearls cost ___>? (Strong)

(49) $[_{CP}$ wh$_1$ … $[_{IP}$ $[_{island}$ … wh$_2$] …x$_1$…]]

By and large, the weak island constraint, in which the sub-extraction of a element is relatively possible, will be replaced by the notion of *Relativized Minimality* (RM henceforth), which accounts for locality conditions on movement as argued by Rizzi (1990, 1992, 2001)[87].

M. Lee (2006) indicates that the long-distance scrambling in Korean and the long-distance topicalization in Spanish appear similar syntactic properties in many aspects. In other words, scrambling and topicalization in two languages are both sensitive to the strong island constraints but less sensitive to RM (as well as the obligatory case marker 'a' in Spanish and 'leul' in Korean). In the case of strong island effects for two languages, the readers can find the (48) for CLLD topicalization in Spanish and the (50) for scrambling in Korean. Here, I only focus on the RM sensitivity. As shown in both (50) and (51), the topicalized elements in Spanish and the scrambled elements can be sub-extracted:

(50) a. A María, la pulsera, dijo Juan que Luis se la regalraría.   (Sp)

---

[87] Rizzi (2001) points out that certain argument/adjunct asymmetries arises in the context of Weak Islands, and links Weak Islands to RM-related phenomena. In Rizzi (1990), RM is originally defined as follows:

Relativized Minimality (RM) in Rizzi (1990:27): X α-gonverns Y only if there is no Z such that
(i) Z is a typical potential α-gonvernor for Y and
(ii) Z c-command Y and does not c-command X.

Y cannot be related to X if Z intervenes and Z has certain characteristics in common with X. So, in order to be related to X, Y must be in minimal configuration with X, where Minimality is relativized to the nature of the structural relation to be established. RM gives an explanation for long-distance wh-movement.

To María, the bracelet, said-3.sg Juan that Luis her-Cl it-Cl would give

'To Mary, the bracelet, Juan said that Luis would give it to her.'

b. A María, me preguntaste si Juan le vendía su coche.

To María, to me-Cl asked-2.sg if Juan to her-Cl was selling his car

'To María, you asked me if Juan was selling his car to her.'

(51) a. Dotori-leul   [May-ga   [Totoro-ga   t   jueoss-neunji] gunggeumhaeha-n-da]]. (Ko)

Acorn$_{-ACC}$ May$_{-NOM}$ Totoro$_{-NOM}$ gave--if   wonder$_{-PRS-D}$.

'The acorn, May wonders that Totoro gave (it).'

b. Dotori-leul$_1$ May-ege$_2$ [Kanta-ga [Totoro-ga   t$_1$ t$_2$ jueoss-da-go] malhae-ss-da]].

Acorn$_{-ACC}$ May$_{-DAT}$ Kanta$_{-NOM}$ Totoro$_{-NOM}$ gave-D-that   say$_{-PST-D}$

'The acorn, to May, Kanta said that Totoro gave (it) (to her).'

The Strong Cross-Over (SCO) and Weak Cross-Over (WCO) in (30b) refer to the effects when a wh-word move from its trace (t) to the initial position, it crosses over the co-indexed pronoun and thus the ill-formed sentence is derived. In the case of the SCO, the co-indexed pronoun is in the argument position, and in the case of WCO, the co-indexed element is in the marginal position. SCO results in completely ill-formed sentence, but WCO gives rise to somewhat less-ungrammaticality[88].

Lopéz (2009) proposes that the SCO predicts the ungrammaticality of Fronted Focus sentences (FF henceforth) in Spanish under binding principle C.

(52) a. *__Who__$_i$ did __he__$_i$ see __t$_i$_?   (wh-movement in English)

---

[88] The examples in English with regard to SCO and WCO are as follows:

(i) Strong Cross-Over:

a. *__Who__$_i$ did __he__$_i$ see ___$_i$?

b. *__Who__$_i$ did you say __she__$_i$ likes___$_i$?

(ii) Weak Cross-Over:

a. *__Who__$_i$ did __his__$_i$ mother see ___$_i$?

b. $^?$__Which beer__$_i$ does __its__$_i$ brewer never advertise ___$_i$?

If a pronoun c-commands its trace, it is the case of SCO. Contrary to this. if a pronoun does not c-command its trace it is defined as WCO. The clauses with WCO effect are considered partially degraded in grammaticality whereas SCO yields completely ill-formed sentences.

b. *A MARÍA$_1$ pro$_1$ no   (se$_1$)   quiere   t$_1$ para nada. (FF in Spanish)

    ACC María   not   REFL-(herself)   loves   for   nothing

'María does not love herself at all.'

[from López 2009: 218]

In (52), the ungrammaticality is derived since the fronted focus element 'A MARÍA' crosses over the null co-indexed pronoun 'pro', which is in the argument position. It is base generated in the complement position of the verb 'quiere' (Eng. want) and its trace is bounded by co-indexed 'pro'. Thus, this sentence is deviant since the trace (as a variable of the R-expression 'A MARÍA') by the dislocation is bounded by 'pro', causing the principle C violation. If the fronted focus element was base-generated in Spec-CP (or Spec-Focus), the ungrammaticality in (34), would not be explained.

    WCO effect is also observed in FF of Spanish[89], as attested in wh-movement of English.

(53) a. **Who$_i$** did **his$_i$** mother see __$_i$?   (wh-movement in English)
    b. ?A CARLOS$_i$ quirere   t$_i$ mucho su$_i$ madre. (FF in Spanish)

    A CARLOS   love-3sg.   much   hisi mother

[adapted from López 2009: 227]

The fronted element 'A CARLOS' is base-generated in the complement position of the verb 'qiuiere' (Eng. want) and the pronoun 'su' (Eng. his) cannot c-command the trace of 'A CARLOS' in its position. As a consequence, the WCO effect appear in this sentence and the movement hypotehsis for FF in Spanish is tenable.

    As for the parasitic gap, as mentioned in Ch.3, it is the most powerful diagnosis used in support of the movement hypothesis in scrambling. To remind the definition of Parasitic gap, I put here again the relevant examples which were used in Ch.3:

---

[89] However, the absence of WCO in topicalization of Spanish is found:

  (i) A Carlos$_i$, su$_i$ madre lo   quiere mucho.

     A Carlos,   his mother   him-Cl   love-3sg. much.

    'Carlos, his mother loves (him) much.'

[from López 2009:227]

The WCO violation is one of the reasons supporting the base-generation hypothesis for CLLDed topicalization in Spanish (Iatridou 1995).

(54) a. Which articles$_i$ did John file t_i without reading pg_i?

[Adjunct clause type]

b. Which boy$_i$ did Mary's talking to pg_i bother t_i most?

[Subject clause type]

We have already confirmed that this parasitic gap phenomena is generally observed in scrambling of Korean (see Ch.3 (31)), which exists pg through the real gap (i.e., an antecedent licenses both the real gap (trace) and the parasitic gap). López (2009) who support the movement hypothesis for the CLLD in Spanish, provides examples that the CLLDed constituents license pg as in wh-movement (By constrast, Cinque (1990:62) argues that CLLDs in Italian are base-generated in Spec-CP since they does not license pg unlike wh-movement[90]).

(55) a. Los libros$_i$ los ha guardado [t_i] sin leer [pg_i] (Spanish)

The books it-Cl has put-away without read.inf

'The books I put away without reading.'

b. ¿Qué has guardado sin leer?

What has put-away without read..inf

'What did you put away without reading.?

[from López 2009: 225,226]

In the case of Korean, this parasitic gap construction is found in scrambling as discussed briefly in Chapter 3 (for more detail discussions see 3.2.2.1.). The relevant example used in Chapter 3 is repeated here:

(56) a. eoneu   nara-leul$_i$ Kim-i [eoje   Trump-ga [t_i] dochagha-gi   jeone]   [pg_i]

which   country-ACC   Kim-NOM yesterday T.-NOM arrive-NOML before

bangmunha-ess-ni?

visit- PST-Q?

'Which country$_i$ did Kim visit [t_i] before Trump [pg_i] arrived yesterday?

Now, let us discuss the base-generation approach. The base-generation hypothesis exhibits the opposite results to the properties found in the movement hypothesis:

(57) Diagnosis for **Base-Generation Hypothesis**:

a. Insensitivity/ Absence of islands

b. Absence of strong cross-over/ weak cross-over effects

c. Absence of parasitic gap

Although the indicated diagnosis for the distinction between movement hypothesis and base-generation hypothesis will be used in our disccusions on the basis of the behavior of wh-movement, it should not to be overlooked that some exceptional phenomena also appear. To avoid errors on grammatical judgement, I use the proven data in the case of Spanish.

Before going into the discussion on movement vs. base-generation noted above, the overt/covert movement, which are one of syntactic parameters, will be addressed.

5.3.3.1. Overt/Covert movement

In syntactic parameters, the movement operation is the most economical and simple way to account for the possible variations in word ordering that exist in natural languages. In particular, the idea that movement operation would be possible overtly-covertly provides an explanatory adequacy for an even wider variety of word orders. In addition, this makes it possible to describe the semantic parts of human mind which is deeply placed.

As is widely well known, the phrasal type, to which the overt/covert movement parameters typically applies is interrogative sentence. In Spanish and English, the wh-phrases exhibit

overtly the movement to the initial position of a clause. In Korean and Japanese, there is no overt movement to the initial position in the wh-phrase. One thing that I would like to point out is, Korean allows both case of *wh*-movement (I regard it as a scrambled *wh*) and in-situ (although there is a subtle difference in its nuance and semantic effect), while English and Spanish do not:

(58) a. **What_i** did Totoro take t_i? (English)

   b. *Totoro took **what**?

(59) a. ¿**Qué_i** llevó Totoro t_i? (Spanish)

   what   take-3.sg. Totoro

   b. *¿ Totoro llevó **qué**?

(60) a. Totoro-ga   **mueos**-eul   gajyeoga-ss-ni? (Korean)

   Totoro-NOM   what-ACC   take-PST-Q

   b. **Mueos**-eul_i   Totoro-ga   t_i   gajyeoga-ss-ni?

In the *Phase Theory* (Chomsky 2000 and subsequent work) which is the developed version of Minimalist Program, wh-movement is explained by the concept of phi-feature checking (number, gender, person and case) operation and strong phase. The edge feature [EPP] of each phases (i.e. v*P and CP) and strong phase (i.e. CP) setting show local movement rather than the direct movement over long-distance (i.e. cyclic movement). Applying the concept of phase, in Spanish the sentence (59) can be depicted as in the tree structure (61).

(61)
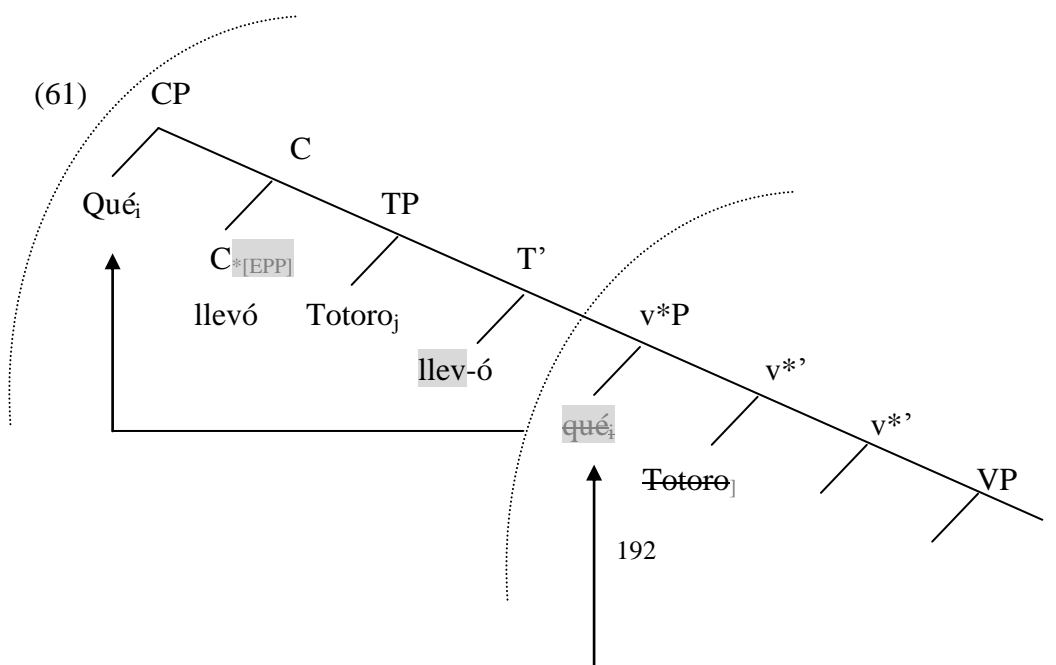
$$v*_{*[EPP]}$$

~~lleva~~   ~~qué~~$_i$

Our discussion excludes these concepts, such as *Phase* and the associated with *phi-feature* checking operation (nonetheless, a pragmatic feature approach such as [+topic], [+focus], [+wh], [EPP] will be mentioned in this dissertation). Even though we do not deal with the wh-movement phenomena under this theory, it is easily confirmed that wh-word was generated from the complement position of the verb and moves to Spec-CP in the overt syntax.

A *wh*-in-situ, which wh-phrase has not visibly moved to Spec-CP, is explained by LF movement that is suggested by Huang (1982b, 1998). Huang (1982b, 1998) argues that all wh-expressions in natural language undergo a movement to the clause-initial position (or Comp/ A-bar-position), even in wh-in-situ languages. That is, in the *wh*-in-situ languages, there is also obligatory wh-movement[91] but not in overt syntax, rather in LF after Spell-out in-situ in the Phonological Form (PF) level. If LF movement is applied to languages such as Chinese, Korean and Japanese, which are the representative *wh-in-situ* languages, they will include the hidden movement to Spec -Comp position of wh-elements as follows:

(62) a. [$_{Comp}$ *shénme$_i$*   [Húfĕi   mǎi-le   *shénme$_i$*]]   (Chinese)

    b. [$_{Comp}$ *mueos$_i$*-**eul**   [John-i   *mueos$_i$*-**eul**   sass-ni]]   (Korean)

    c. [$_{Comp}$ *nani$_i$*-**o**   [John-ga   *nani$_i$*-**o**   katta-no]]   (Japanese)

---

[91] However, it is also general to express overtly wh-phrases on the left side of a clause in Korean as in wh-movement languages so that it can be considered as a movement. It is the scrambling, preferably, which can be referred to as wh-scrambling, in this case.

(i) *mueos$_i$*-**eul**   [John-i   *t$_i$*   sa-ss-ni]]

      what-ACC   John-NOM   buy-PST-Q

The wh-word *mueos* (Eng. what) undergoes the left movement in overt syntax and phnologically realized in the initial position of a clause, unlike the example (4c) which is applied to LF analysis. That is to say, the case of (4c) is a simple question clause and (i) is the case of scrambling.

The *wh*-element in-situ is also found in English and Spanish[92] only when the sentences contain multiple interrogatives such as (63a) and (64a). In this case, it is generally assumed that the *wh*-word in-situ is subject to a covert movement in the LF level. The moved *wh*-word *who* have already been shifted in overt syntax and then the process of covert raising at the level LF is applied to *wh*-element in-situ *what* ending up in the Spec of Comp.

(63) a. Who bought what?   (English)

   b. [$_{Comp}$ what$_j$ [$_{Comp}$ who$_i$ [t$_i$ bought   t$_j$]]

(64) a. ¿Quién compró qué?   (Spanish)

   b. [$_{Comp}$ qué$_j$ [$_{Comp}$ quién$_i$ [t$_i$ compró   t$_j$]]

Therefore, covert movements can be applied to not only multiple interrogations in wh-movement langauges and but also simple interrogations in wh-in-situ languages.

(65) a. [$_{Comp}$ *what$_j$*   [who$_i$ [t$_i$ bought   *what$_j$*]]   (English)
   b. [$_{Comp}$ *qué$_j$*   [quién$_i$ [t$_i$ compró   *qué$_j$*]]   (Spanish)
   b. [$_{Comp}$ *shénme$_i$*   [Húféi   mǎi-le   *shénme$_i$*]]   (Chinese)
   c. [$_{Comp}$ *mueos$_i$*-eul   [John-i   *mueos$_i$*-eul   sass-ni]]   (Korean)
   d. [$_{Comp}$ *nani$_i$*-o   [John-ga   *nani$_i$*-o   katta-no]]   (Japanese)

I display the *wh*-word of English and Chinese in digram form as their canonical word order is the same. In (66), the dark colored *wh*-word is the phonetic realization, while dull-colored ones are the *wh*-words that have undergone LF movement:

(66)   a. multiple interrogative clause   b. simple interrogative clause

      what C^0 $_{[+Q]}$ …..   *what*   *shenme* C^0 $_{[+Q]}$ …..   *sheme*

---

[92] The *wh*-in situ also appears in 'Echo questions' in English, as illustrated in (i):

  (i) John bought WHAT?

In this case, *wh*-words require a prosodic intonation and have a special meaning. We will generally ignore this phenomenon.

The existence of a covert raising approach[93] to *wh*-elements in situ languages makes it possible to integrate in a cross-linguistic formal system between *wh-in-situ* languages and English-type languages. Thus, the language variations can be simply distinguished depending on where this movement appears i.e., in overt or covert syntax, as (67) illustrates:

(67)   a. simple interrogative clause   b. simple interrogative clause

        what $C^0_{[+Q]}$ …..   *what*   *shenme* $C^0_{[+Q]}$ …..   *shenme*

          overt movement   covert movement

It should be noted here that the *wh*-phrase LF- movement is not caused by a C[+Q], which is generally assumed in English as mentioned in the previous section. As noted ealier, Huang (1982) assumes that in all languages, *wh*-movement appears, whether overtly or covertly, is to form an **operator-variable** relation. This is a slightly different appaorach from a C [+Q] assumption, that is, a feature based analysis. The fact that a *wh*-word forms an operator-variable is based on the semantic reasons that the *wh*-elements may have another interpretation rather than *wh*-interrogative. Chomsky (1977) argues that the *wh*-phrase as in (68a) should be regarded as quantifiers at the LF component as illustrated in (68b):

(68) a. *who* did John see?   (English)

    b. for which (x), x a person, John saw x.

[from Chomsky 1977: 83]

According to Chomsky (1977), by the interpretive rule, the meaning of quantifiers is guaranteed at the level LF and the rule giving the meaning of quantifiers introduces the variable. Thus, it is considered that the *variable* is the (terminal) symbol of LF according to his term.

---

[93] Huang (1982) names it LF *wh*-movement for *wh*-in-situ languages in that case as in (6b). This covert movement hypothesis also can be applied to the unmoved *wh*-phrases in multiple wh-questions in *wh*-in-comp languages in the same way. Thus, all *wh*-phrases universally appear in Spec, CP at LF in multiple questions in the case of English and in the simple question in *wh*-in-situ languages.

(69) Operator-variable dependency

   a. multiple interrogative clause   b. simple interrogative clause

    Op-wh C^0 …. **variable** (-*what* ^{n})   **Op** $C^0_{[+Q/-Q]}$ …. **variable**(-*what/something/no one*)

The operator generates a variable since it is linked to meaning. In the literature, an **Operator** has been used in **Quantifier** constructions. (71) is the logical symbol of the examples (70). The verb 'LOVE' is the two-place predicate which selects two constants (i.e., j and m) as in (71a). As shown in (70b) and (70c), one of the two constants chosen by the verb 'LOVE' turns into open formula due to the "someone" and "everyone". In general terms, "all", "some" and "every" are defined as "quantifier" and they change a normal sentence as in (70a) into a "sentence having numbers (quantity)" in a domain discourse that allows for a various number of cases as in (70b) and (70c).

(70) a. John loves Mary.

    b. John loves <u>someone</u>

    c. John loves <u>everyone</u>.

    d. [$_{CP}$ Who$_i$ does [$_{IP}$ John love t$_i$]]?

(71) a. LOVE (j, m)

    b. $\exists$x [LOVE(j,x)]

    c. $\forall$x [LOVE(j,x)]

    d. Wx [LOVE(j,x)]

Again, (71b) and (71c) turn into open formula by the quantifiers such as existential quantifier "$\exists$"and universal quantifier "$\forall$". These quantifiers play a role as an operator, yielding a variable with the property of number (or quantity). Thus, a variable must be bounded by an operator since a variable cannot be produced alone without an operator.

    The operator may begin with the premise that it is base-generated, but the operator-variable construction can also be derived by applying "Quantifier Raising" rule as suggested by May (1985).

(72) a. [$_{IP}$ someone [$_{IP}$ John loves t$_i$]]

    b. [$_{IP}$ everyone [$_{IP}$ John loves t$_i$]]

This rule leads to derive the interrogative structure (71d) in which the wh-word 'who' is an operator as a quantifier and from which a variable can be generated. This is because the wh-word 'who' itself can yield a number of different quantities as a non-referential expression. Thus, in (70d) and (71d), operators move and their traces can be seen as a variable bound by the operators.

The operator base-generation and operator movement assumptions provide a restriction of the reading-scope in the multiple interrogations which give rise to ambiguous interpretations as introduced by Pesetsky (1987)

(73) *Who* knows *where* we bought *what*?

    a. *John* knows where we bought what (for instance, he knows what we bought the book in Amsterdam, the record in Groningen, etc.) → narrow scope

    b. *John* knows where we bought the book (for instance, in Amsterdam); *Mary* knows where we bought the record (for instance, in Groningen): etc. → wide-scope

<div align="right">[from Pesetsky 1987:99]</div>

(73a) shows that *where* and *what* has wide-scope interpretations but *who* indicates only one reading. On the other hand, in (73b), all wh-phrases such as *who*, *where* and *what* display wide-scope interpretation. To put it briefly his proposals, on the one hand, a wh-word itself is an operator that undergoes the movement at LF level to define the reading scope, on the other hand, the generated position of Q-morpheme renders the scope by co-indexing with the lower wh-element. The former was introduced as Chomsky-style and the latter as Baker-style.

(74) Chomsky-style representation

    a. [[$_{Comp}$ *who$_j$*] e_j knows [[$_{Comp}$ ***what$_i$* *where$_k$***] we bought $\boldsymbol{e_i}$ e$_k$]]

    b. [[$_{Comp}$ ***what$_i$* *who$_j$***] e_j knows [[$_{Comp}$ *where$_k$*] we bought $\boldsymbol{e_i}$ e$_k$]]

(75) Baker-style representation

    a. [[$_{Comp}$ Q$_j$ *who$_j$*] e_j knows   [[$_{Comp}$ **Q$_{j,k}$**   *where$_k$*] we bought *what$_i$* e_k]]

    b. [[$_{Comp}$ **Q$_{i,j}$** *who$_j$*] e_j knows   [[$_{Comp}$ Q$_j$ *where$_k$*] we bought *what$_i$* e_k]]

(74) is applicable to wh-movement languages, and (76) is appropriate for wh-in-situ languages with Q-morpheme such as *'-neunji'* (Eng. whether),*'-ni'* in Korean. As provided in (76), in Korean, which has different types of Q-morphemes, the embedded Q-morpheme *'-neunji'* and 'the root clausal Q-morpheme '*-ni'* determine the scope as behaving scope markers such as Baker-style (for better understand see the example (76) in ch.3).

(76) a. {Neo/ *Nu}-ga [Trump-ga NUGU-leul bangmunha-**neunji**] a-n-da.   (Korean)

   You/who-NOM   Trump-NOM   WHO-ACC   visit-Q   know-PRS-D·

   'You know who Trump visits.'

   (i) *'Who do you know Trump visits?'

   (ii) *'Who knows who Trump visits?'

   b. Neo-neun [Trump-ga NUGU-leul bangmunha-n-da-go] a-**ni**?

   You-TOP   Trump-NOM   who-ACC   visit-PRS-D-C   know-Q

   'Who do you know that Trump visits?'

   (i) *'Do you know who Trump visits?'

   c. Neo-neun [Trump-ga NUGU-leul bangmunha-**neunji**] a-**ni**?

   You-TOP   Trump-NOM   who-ACC   visit-Q   know-Q

   'Do you know who Trump visits?'

   (i) *'Who do you know whether Trump visits?'

[adapted from H.Choe 1995:289-290]

(76a) shows tha the interrogative sentence only have narrow scope reading, since embedded Q-morpheme only allows NUGU in its scope. Even if a wh-phrase appears in the matrix clause, the matrix clause can neither be interrogative sentence nor allows wide scope reading because there is no question marker in the matrix clause. Also, the absence of the question marker in the matrix clause prevents the appearance of a wh-phrase. By the same token, a wh-phrase in embedded clause cannot have narrow scope since the question marker is in the matrix clasuse as in (76b). In the case of (76c), a wh-phrase in the embedded clause only has narrow-scope even though two question marekers appear because the Q-morpheme in the matrix clause cannot gorven across another Q-morpheme. The position of the question markers in each example of (76) and the corresponding reading scope can be depicted as follows:

(77) a. [[Comp Who/Quién-ga]   [[Comp   Who/Quién -leul   Q-neunji/si]   D.-da]] (=28a, 29a)

b. [[Comp You/Tú-ga]   [[Comp   Who/Quién-leul   D-daC-go/que]   Q-ni]]   (=28b, 29b)

c. [[Comp You/Tú--ga]   [[Comp   Who/Quién -leul   Q-neunji/si]   Q-ni]]   (=28c, 29c)

Based on this analaysis, I assume that in Korean an operator with [+Q] appears as an overt morpheme, whereas in Spanish null operator [+Q] is located in C, determining scope domains in interrogative sentences.

In the forthcoming section, based on what we studied in the previous section, I will provide tranditional analyzes on whether the left peripheral elements (focusing on informative elements such as topic, focus and scrambling) in Korean and Spanish are the production of movement or base-generation.

5.3.3.2. Movement vs. Base-generation

This section provides analysis through the traditional diagnosis and attested data to determine whether the informative elements are the consequences of a movement or a base-generation on surface position. The phenomena included in the analysis are short/long topicalization in Spanish and Korean, Fronted Focus in Spanish, short/long scrambling in Korean (in-situ focus is considered to be a neutral sentence that does not occur a semantic effect).

5.3.3.2.1. CLLD topicalization and FF in Spanish

In Spanish, the process of deriving CLLDed topicalization is divided into two ways: (i) base-generation or (ii) movement. We have concluded in Ch.4 that CLLDed topics are outputs of movement and HTs are base-genrated, respectively. Basically, I would like to put here my intention in advance that the CLLDed topics are considered syntactic elements by movement. However, since there have been considerable arguments for base-generation, and there are some convincing facts in its reasoning, it would be worth considering the base-generation view point.

Under Minimalist Program, it is considered that topics and clitics in CLLDed topics in Spanish are being moved from v*P and then, topics raise to CP-area (Zubizarreta; 1994;

Rizzi (1997; Cecchetto 1999, 2000; Villalba 2000; Boeckx 2003; Grohmann 2003; López 2009; Rubio Alaclá 2014; etc.). On the other hand, it is analyzed that the topics are base-generated in CP-area in connection with clitics forming binding chain by means of clitic-movement or *pro*-movement (Cinque 1990; Iatridou 1995; Suñer 2006; Anagnostoopulou 1997; Frascarelli 2000; etc.)

The robust evidence for **base-generation hypothesis** is presented by **Suñer (2006)**, where the anaphoric epithet and dislocated element co-appear in **Rioplatense Spanish**. As we have seen before, HT is also regarded as base-generated element and in that construction display an anaphoric epithet, but the difference with CLLD is that the accusative case does not show as in (29) 'María'. Therefore, it is unlikely that CLLD will be replaced by HT.

(78) CLLD in Rioplatense Spanish

A Menem, nadie lo votará a ese estafador sinvergüenza.

A Menem.ACC nobody Cl.him will vote-3sg. A that swindler shameless

'Menem, nobody would vote (him) for such a shameless swindler.'

[from Suñer 2006: 129 (4b)]

(79) HTLD in Peninsular Spanish

María, hace tiempo que no veo a esa sinvergüenza.

Maria does time that no see.1sg. A that shameless (woman)

'Maria, I haven´t seen taht shameless woman in a long time.'

[from López 2009: 4 (1.3f)]

In Suñer (2006), both topic element 'A Menem' and its epithet 'a ese estafador sinvergüenza' are base-generated in different positions, respectively. In the case of topic element, it is generated in TopP above the TP in compliance with Cartography. On the other hand, the co-indexed clitic 'lo' (Eng. him) is can be analyzed under the **Big-DP hypothesis** of Uriagereka (1993, 1995, 2000), which is base-generated on the position of the VP-complement. In the case of absence of the anaphoric epithet as in Peninsular Spanish, it is generally assumed that the complement of DP is null pronoun '*pro*'. In the tree diagram below, it is contained that the subject 'nadie' and the verb 'votará' have already undergone the movement to TP.

(80) Base-generation approach

TopP
  A Menem_i
  Top'
    Top
    TP
      nadie
      T'
        votará
        v*P
          subj.
          v*
          VP
            V
              votar
            Big-DP
              D
                lo_i
              DP
                a ese estafador_i …/ *pro*_i
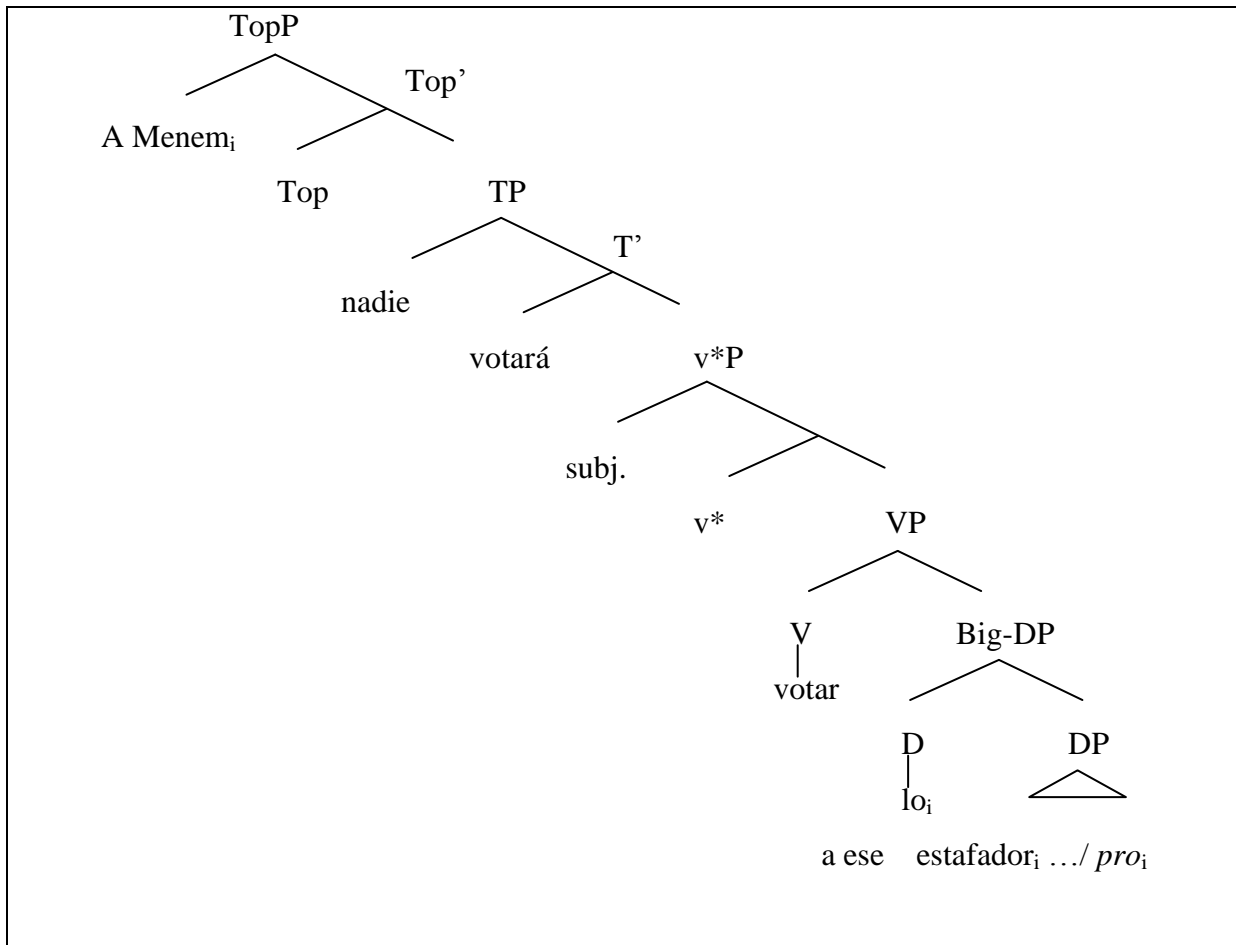
The **clitic system** is also important since the clitic and topic element are inextricably linked in CLLD constructions in Spanish. Also, it would be necessary to predict how clitics could affect the syntax. In the literature of Romance languages, two hypotheses have been raised, such as **clitic movement** (Kayne 1975, Rizzi 1986, Uriagereka 1995, etc.) and **clitic base-generation** that clitic appears with co-indexed *pro* (Strozer 1976, Jaeggli 1982, Aoun 1981, Borer 1984, Sportiche 1993, Suñer 1988, etc.). On the other hand, there have been suggested that clitic is a morphological or phonological part of verbs bearing **affixal properties** (I put forward that it would appear in v* with the verb):

(81) a. María conoce a Juan. (Spanish)

     María   know.3sg. a Juan
    'María knows Juan.'

  b. María lo   conoce

     María cl.(him) know.3g.
    'María knows him'

a. Movement hypothesis	b. Base-generation	c. Verbal affix
$[_{XP}$ lo$_i$ $[_{VP}$ María conoce t$_i$]]	$[_{XP}$ lo$_i$ $[_{VP}$ María conoce pro$_i$]]	$[_{v*P}$ María lo-conoce$_i$ $[_{VP}$ t$_i$]]

In addition to these proposals, hypotheses such as the **projection of clitic** (i.e. ClP) (Suñer 1988, Sportiche 1993, Zubizarreta 1999, a.o) supporting to base-generation with **Big-DP**[94] have been also proposed considering that clitic doubling phenomena seen in Peninsular Spanish as well as in various dialects as in Rioplatense Spanish. This is the postulation started from the reasoning that **clitics** are the same as **determiners** based on the fact that clitics not only have definiteness meaning but also phi-features (accusative case, person and number) agreeing with co-occurrence DP (Uriagereka 1995; Di Tullio & Zdrojewski 2006; Suñer 2006; Ormazabal & Romero 2010).

(82) a. María conoce a Juan.

    b. María lo conoce a Juan.   (Rioplatense Spanish)

    c. María *(lo) conoce a él.   (Peninsular Spanish)

    d. María (*lo) conoce a Juan. (Peninsular Spanish)

a. Clitic projection   b. Big-DP

lo   a Juan/ a él

        conoce t$_i$ Cl   DP
                                        |
                                        lo   t$_i$ / *pro$_i$*

In Boeckx (2003), under the Big-DP structure, there is a proposal that the presence or absence of island effects is determined by the agreement relatiohsip between the head D and extracted elements. I note in advance that this idea will be adopted in our proposals.

Another interesting approach to clitic is LF movement which is introduced in López (2009). Anagnostopoulou (1997) suggests the LF movement of the clitic as an operator in favor of base-generation hypothesis of CLLD. The topic elements are base-generated in the sentential periphery and clitics undergo movement at LF to the same projection in which the dislocated constituent places[95].

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(83) Clitic movement at LF

    a. A Juan, lo conozco. (As for Juan, I know him)

    b. [$_{CP}$ A Juan [$_{CP}$ lo$_i$ [$_{TP}$ *pro* t$_i$ conozco]]]

                LF movement

Turning to the discussion of CLLD for base-generation, Cinque (1990)[96] also argues that the CLLDed constituent is base-generated in the adjunctive position of IP to form A'-chain (or binding chain in his term) by means of linking a CLLD with a clitic or co-indexing with null pronoun '*pro*'.

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[95] The advantage of the covert movement of clitics is to convince the CLLD in Spanish is insensitive to weak islands, but López (2009) points out that it does not provide a direct analysis of the Reconstruction effect in terms of binding veiw point and Strong Cross Over effect. Furthermore, Rubio (2014) also explains that it gives inccorect predictions, which covert movement of clitics give rise to the violation island constratins even though the CLLDed topicalization is subject to island constraints.

[96] Cinque (1990) distinguishes between the position that the wh-elements move and the CLLDed constituents move, the former is applied to movement operation, but the latter t base-generation approach. He also explains that both wh-interrogative sentence and the Focus Fronting form A'-chain with a trace of a moved element by means of movement operation. Thus, the chain of wh-interrogatiions and Focus Fronting phrase is {XP$_i$, t$_i$}, whereas the chain of CLLD is {XP$_i$, *pro$_i$*} or {XP$_i$, Clitic$_i$}.

(84) a. A Juan,   le   entregué   el paquete. (Spanish)

       A Juan.ACC   him.cl   delivered.1sg.   the package

    'Juan, I handed (him) the package.'

   b. [$_{CP}$ A Juan$_i$, [$_{IP}$ le entregué [$_{VP}$ el paquete *pro$_i$*]]].

   c. [$_{CP}$ A Juan$_i$, [$_{IP}$ le$_i$ entregué [$_{VP}$ el paquete]]].

                             [from Bosque & Gutiérrez-Rexach 2008: 691(60)]

Another diagnosis in favor of the base-generation hypothesis to CLLD topicalization can be based on the absence (or insesitivity) of weak island and the lack of weak cross-over effect, as we have seen ealier.

(85) A María, no recuerdo   quién preguntó (que) dónde la   había visto yo. (wh-island)

     A María,   not remember.1.sg who   asked.3.sg   (that) where her.Cl had   seen   I

    'Maria, I don't remember who asked where I had seen her.'

                                   [from Suñer 2006: 136 (21a)]

(86) A Carlos$_i$, su$_i$ madre   lo   quiere mucho.   (WCO)

     A Carlos,   his mother   him-Cl love-3sg. much.

    'Carlos, his mother loves (him) much.'

                                   [from López 2009:227 (6.42b)]

(85) shows that the topic element can be sub-extracted across the wh-island and in (86), the WCO does not exhibit (i.e., the topic element 'A Carlos' can bind the possessive 'su' in the higher position). From a perspective base-generation, no WCO effect occurs since the topic element is initially base-generated directly at the initial position (Iatridou 1995: 12-13).

   Despite the fact that the topic elements do not match to the diagnosis for movement, and thus base-generation is supported, it is pointed out that these two diagnoses are not a good test for accurately determining whether a constituent undergoes movement or is base-generated. López (2009) points out that in contrast to (85) and (86), there exists the case of sensitive to weak island as in (87c), and in the case of not being restricted to island constraints, it is regarded that the dislocated constituent is attributable to be D-linked as in (87a) and (87b). That is to say, he argues that CLLDed topic-constituents are extracted due to the contextual environment, such as D-liking, but that they are fundamentally sensitive to both strong and weak islands.

(87) a. Els llibres, em   pregunto quan els   llegirem. (Cat)

   The books Cl.$_{myself}$ ask.$_{1sg}$ when Cl.$_{them}$ will read.$_{1pl}$

   'The books, I wonder when we will read them.'

  b. Quins llibres et   preguntes quan llegirem?

   which books   Cl.$_{yourself}$ ask.$_{2sg}$ when will read.$_{1pl}$

   'Which books do you wonder when we will read?'

  c. ?? Bon estudiant, em   pregunto quan ho   sera.

   Good student,   Cl.$_{myself}$ ask.$_{1sg}$ when Cl.$_{that}$ will be.$_{1sg}$

   'Good student, I wonder when I will be (that).'

[from López 2009: 222-223]

The fact that CLLD is also sensitive to weak islands can be justified to support the movement hypothesis.

On the other hand, if the CLLDed element was a product of movement, the WCO effect should appear, but the reason that it does not appear is that WCO is not appropriate as a diagnosis of movement operation[97]. However, I will use WCO as a diagnostic for the movement test[98]. I agree with the reasoning of Cecchetto (2000), in which the reason why the WCO effect does not show in Spanish is due to the clitic doubling, a unique phenomenon of

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[97] Cecchetto (2000) provides the argument in favor of the violation of WCO in wh-phrase of Rioplatense Spanish when a clitic is doubled.

(i) ¿[A cuáles de ellos]$_i$ no *(los) aguanta ni su$_i$ madre t$_i$?

   A which of they not Cl.$_{them}$ stand even their$_i$ mother t$_i$

   Which of them are endured not even by their own mother?

  [from Cecchetto 2000: 109 (34)]

(ii) ¿[A quiénes]$_i$ no *(les) dejó su$_i$ madre ningún dinero t$_i$?

   to whom no to Cl.$_{them}$ left.$_{3sg}$ their$_i$ mother t$_i$

   'To whom didn't their mother leave any money?'

[from Suñer 1988: 421(71)]

I also regard that the lack of WCO effect has to do with clitic-doubling under Big-DP system which is special in Romance languages and I follow the assumption that WCO can be the diagnosis for the movement operation contrary to López (2009).

[98] As will be discussed later, the WCO effect definitely vanishes in Korean and Chinese when a constituent is fronted.

Romance languages, and also I consider the proposal of Boeckx (2003), in which WCO violations may occur due to the resumptive chain formation. Bearing these ideas in mind, I will capitalize on those things for our proposals.

In sum, the syntactic properties supporting the claims that CLLDed elements are base-generated in the peripheral position of a clause are as follows:

(88) Base-generation for CLLD in Spanish:

    a. Anaphoric epithet or null pronoun *pro* (Suñer 2006, Cinque 1990)

    b. Absence (or insesitivity) of weak island

    c. Weak cross-over effect violation

Now, let us enter into the movement hypothesis for CLLD. The phenomena that appear contrarily to the result of the diagnosis of base-generation can be generally grounds for the movement hypothesis. According to López (2009) and Rubio Alcalá (2014), properties that support the movement hypothesis for CLLD are as follows:

(89) Movement hypothesis for CLLD in Spanish:

    a. Strong island constraint

    b. Obligatory case marker 'a'

    c. Condition C violation (Strong Cross-Over effect)

As we have seen before, CLLDed topics in Spanish are strictly constrined to strong islands.

(90) a. *De esos libros$_i$,   hablar   t$_i$ causa problemas.

      About those books, talking   causes problems.

<div align="right">

Subject Condition
</div>

   b. *A Pedro$_i$, he encongrado [$_{NP}$ a alguien [$_{CP}$ que le hablar ía [$_{NP}$ t$_i$]].

     To Pedro, I've found somebody who CL would talk.

<div align="right">

Complex NP Condition
</div>

   c. *Pedro$_i$, he hablado con alguien [$_{PP}$ antes de que llegara t$_i$].

     Pedro, I've talked with someone before he arrived.

<div align="right">

Adjunct Condition

[from Rubio Alcalá 2014:54 (59)]
</div>

In the case of the obligatory appearance of case marker 'a' as the [a+DP] form, the (direct) object is described as being base-generated in the complement-position of the verb, assigned the accusative case and then dislocated to the initial sentence. If it was base-generated in the surface position, the appearance of 'a' would not be explained. Hanging Topic, on the other hand, tendes to be generally considered base-genrated in initial sentence because it does not require obligatory case marker 'a', as we already investigated in the previous section.

(91) a. A María, hace tiempo que no la veo.

      A María,   does time   that no Cl.her see.1sg

      'María, it´s been a long time that I didn´t see (her)'

   b. María, hace tiempo que no la veo.

      'María, it´s been a long time that I didn´t see (her)'

<div align="right">[from López 2009:4 (1.3 c,d)]</div>

As easily observed, in CLLD topicalization construction, the (accusative) case of the dislocated topic element has the conectivity with clitics.

(92) a. A Juan no lo quiero ni ver.

     ACC   Cl-ACC

   b. *A Juan no quiero ni ver

      ACC

<div align="right">[from López 2009:218 (6.7)]</div>

Another representative diagnosis is the violation of Condition C yieldiing SCO effects:.

(93) a. *A María$_1$ *pro$_1$*   no   (se$_1$)   quiere   *t$_1$*   para   nada.

      A María   *pro*   not   herself.Ref love.3sg   for   nothing

      'María does not love herself at all.'

   b. A sí misma$_1$, María$_1$ no   se$_1$ quiere   *t$_1$* para nada.

      ACC herself,   María   not herself.Ref love.3sg   for   nothing

<div align="right">[from López 2009:219 (6.9c,d)]</div>

It is possible to account that the ungrammaticality of (93) is attibuted to the movement of DP 'A María' from the complement of the verb position. As can be seen in (93a), the Strong Cross-Over effect appears due to the movement of 'A María'. The underlying reason that appears SCO effect can be explained by binding conditioin C. In other words, since the copy of the R-expression 'A María' is c-commanded by the co-indexed '*pro*', in turn, the derivation crashes. If we assumed that 'A María' is base-generated in Spec-CP, the sentence should be well-formed because the R-expression 'A María' is free in that position. By the same token, in the case of (93b), the copy of the anaphor 'A sí misma' is c-commanded by '*se*', thus the derivation no crashes since it satisfies the binding principle A[99]. Therefore, the grammaticality of the (93b) also is justified by movement operation.

The analyses discussed, so far, were the arguments endorsing the movement for CLLD topicalization in Spanish. Now let us look at how the CLLD structure can be analyzed under movement operation. The movement operation can apply to CLLD within Chomsky's theories. One is the *Minimalist Program*, which is established feature cheking system, and the other is *Phase theory*. In Rizzi (1997), the topic and focus element moves to check their discourse features such as [+topic] and [focus] set in the functional category corresponding to the left periphey. As pointed out ealier, Rizzi (1997)'s feature checking system is carried out under A-bar configuration in which forms a Spec- Head agreement relationship, that is to say, the topic/focus elements moves to satisfy topic/focus-crietrion, like wh-criterion.

(94) a. A Carlos, su madre lo quiere mucho.

      A Carlos his mother him.Cl love.3.sg. much

      'Carlos, his mother love (him) much.'

---
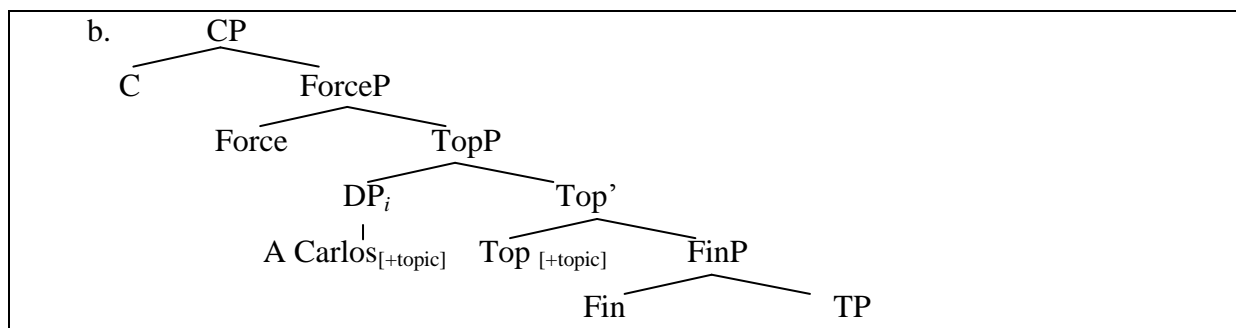
[99] Binding Principle A (Chomsky 1981: 188):

  An anaphor binding must be bound in its governing category.

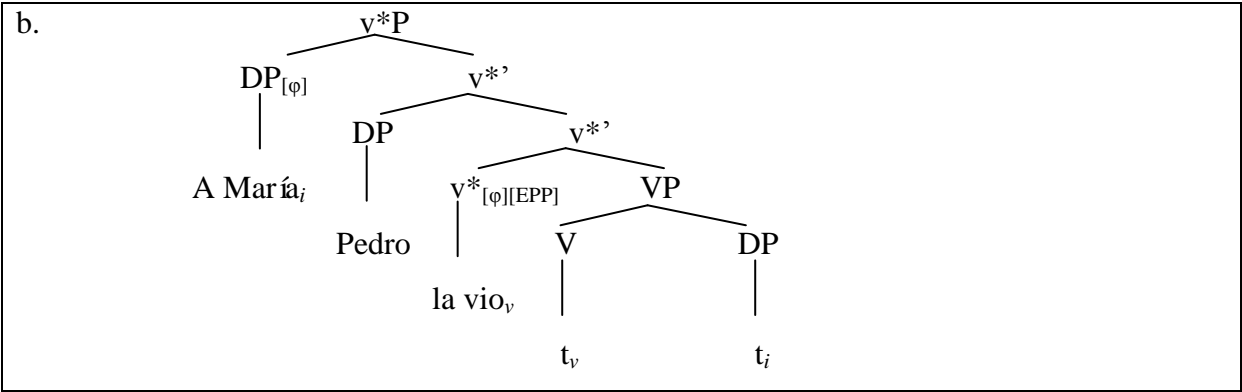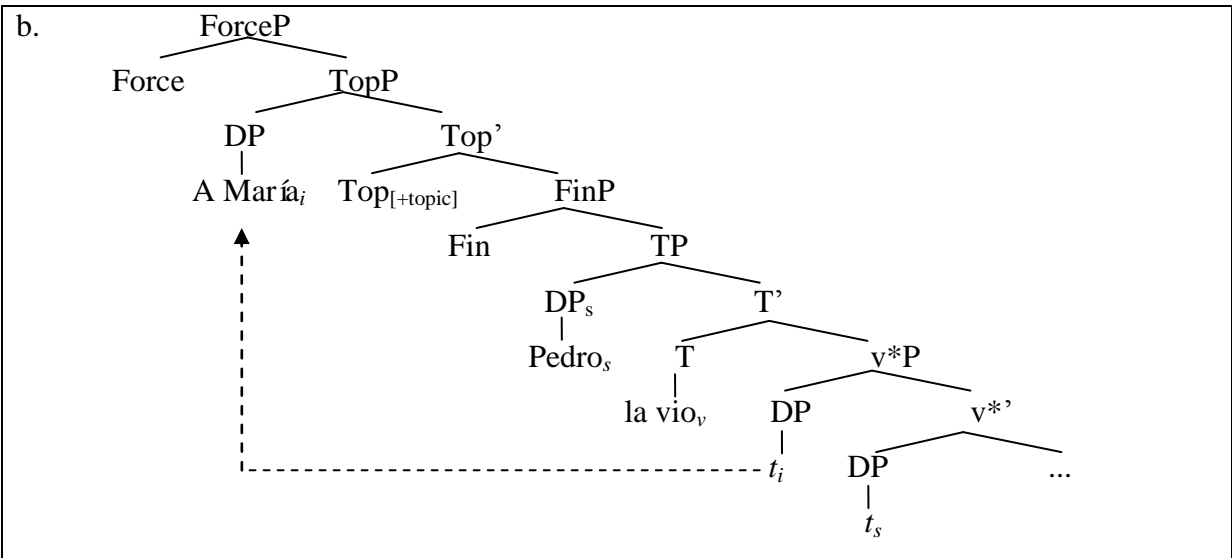| su madre lo quire mucho t_i |
| :---: |

(95) A María la vio Juan

    A María her.Cl saw.3sg Juan

    'Maaría, Pedro saw (her).'

Under *Phase theory,* considering the sucssesive cyclic of topics, it is analyzed that topics do not move directly from VP to CP-domain, but instead, stop by v*P, which is intermediate landing site, and move to TopP, as depicted in ( ).

b.

The second step is as follows:

b.

This digram shows the sucessive cyclic movement of the topic element in Spanish as wh-phrases.

Interestingly, the movement route of topics is also shown in the movement pattern of preverbal subjects in Spanish. In general, it is analyzed that pre-verbal subjects move from v*P, where subjects are base-generated, to Spec-TP (or to Spec-TP assumed to have the A-bar properties or to Adjuncted Spec-TP, which is A-bar position) and post-verbal subjects remain in v*P without movement. Especially, in the case of pre-verbal subjects, there are many controversies about where they are located, but I shall suggest that pre-verbal subjects in Spanish (and Korean) undergo movement to FinP, given that two languages are NLSs languages and can hold contrastive topic readings. In this regard, null *pro* will be postulated for the position of Spec-TP in our proposal.

In Rubio Alcalá (2014), multiple topics are presented as being mapped onto [$_{CP}$ C ... (fin) (fin)...] constructions rather than [$_{CP}$ C (topic)...(topic)...] which is analyzed in the conventional cartograpic appraoch.

(96) a. [$_{FinP}$ Esas noticias$_i$ Fin^0 [$_{TP}$ ya   [$_{TP}$ T se las hemos   [$_{v*P}$ dado t$_i$ a Juan]]]]

      those news already cl-him cl-them we have given to Juan

      'Those news, we have already given to Juan.'

   b. [$_{FinP}$ A Juan$_j$, [$_{FinP}$ esas noticias$_i$, [$_{TP}$ ya   [$_{TP}$ T se las hemos [$_{v*P}$ dado t$_i$ t$_j$]]]]

      To Juan,   those news,   already   cl-him cl-them we have given.

      'To Juan, those news, we have already given.'

<div align="right">[from Rubio Alcalá 2014: 65]</div>

I will propose, however, that CLLD topics in Spanish and '*-neun*' topics in Korean are considered D-linked in TopP, taking into account that Topics allows a relatively flexible sub-extraction from islands circumstances in both languages, in contrast to the movement behavior of wh-phrases (in the case of Spanish).

(97) a.*¿Qué vender(lo) se decidió la semana pasada?

      what to sell-cl-it was decided-3-sg- last week?

   b. El coche, venderlo se decidió la semana pasada

      the car,   selling-cl-it was decided-3.sg. last week

<div align="right">[from Rubio Alcalá 2014: 161]</div>

As Rubio Alcalá (2014) points out that the movement of CLLD topics in Spanish would have different patterns from wh-featrue driven[100], we will then conclude that CLLD topics do not apply to the standard diagnosis with respect to movement.

Additionally, an alternative would be to assume that an operator with peripheral features such as [+wh], [+top] and [+foc] in C position forms an operator-variable by triggering movement of constituents in a clause. An operator setting, however, forces more complex syntactic operations. This would not be compatible with simplest operation which pursues UG. In the case of topicalization in Korean, for instance, there are cases where the obligatory appearance of resumptive pronouns is required as well as free sub-extraction of Topics from islands. It is generally suggested that topics in Korean are base-generated with null operator at LF movement (H.Choe 1995, H. Lee 2008), but in this case it should be regarded that the role of covert syntax (LF) is more important than overt syntax. This analysis will be addressed in section 5.3.3.2 (topicalization in Korean).

Now, let us turn to the FF in Spanish. In the FF in Spanish, all the properties of the movement phenomenon appear such as Strong/ Weak island constraints and SCO/WCO effects. I will not repeatedly discuss here the cases of WCO/SCO effects as it is mentioned ealier.

To sump up, CLLD in Spnaish exhibit the definite movement pattern compared to HT. Comparing with wh-movement, however, CLLDs appears to be more freebehavior of usb-extraction patterns from island constraints, and as noted by López (2009), it is considered to be varied whether topic can be sub-extracted or no-sub-extracted depending on the context, i.e, D-linked.

In the next section, the disccusion will be concentrated on the syntactic properties of Focalization and Topicalization in Korean under Base-generation vs. Movement hypothesis. I note in advance that scrambling and wh-movement in Korean has been dealt with in the previous chapter will be regarded as the same phenomenon: **Focalization**.

5.3.3.2.2. Focalization in Korean: Focus, Constrastive Focus, Scrambling, wh-movement

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[100] As explained by Rubio Alcalá (2014), it can be analyzed theoretically that the EPP of T is activated first in the process of Feature-inheritance between C and T heads (Chomsky 2008) to satisfy it, so that the movement of subject arises instead of wh-phrases.

In non-trivial investigations, it is assumed that focus, cosntrastive focus, scrambling (cf. Saito 1985:158)[101] and wh-movement or wh-scrambling employ syntactic Focus Movement. According to Choe (1995), the information focus, wh-movement and contrastive focus (Kuno 1973, for Japanese constrastive '-wa') are in the same functional category F which triggers focus movement.

(98) Focalization:

    a. Fronted/Preposed/Scrambled Focus (with stress)

    b. Scrambling (with out stress)

    c. Wh-movement (or wh-scrambling)

    d. *'–(N)EUN'* marked Contrastive Focus[102] (Kuno 1973, for Japanese constrastive '-wa')

I believe that all the fronted XP (i.e., adverbials, objects, subjects, wh-phrases and verb predicates) should be in the category of Scrambling since they have the same semantic effect such as 'specificity' and 'emphasis' as well as phonetically are 'stressed'. For this reason, temporarily, I reagard all things mentioned above as foci in FocP.

    The four different types of focalization just mentioned above have the following common properties as Focus Movement:

(99) Information(scrambled)/wh/constrastive-foccus:

    a. are easily stressed in the sentential initial position.

    b. cannot precede topic elements.

    c. cannot be case-dropped (in the case of long-distance preposing) yielding A-bar dependency. In other words, obligatory case markers are required.

    d. can be multipled among them reagardless of hierarchy.

    e. exhibit SCO and WCO effects

    f. are senstivie to Srong island constraints but insensitive to RM (Weak island constraints).

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[101] In long distance scrambling of Japanese, scrambled elements can be also considered as focused elements as suggested by Saito (1985). Thus, it can be seen that scrambling employs Focus Movement.

[102] I differently mark the topic '*XP–(n)eun*' and the contrastive focus '*XP–(N)EUN*' which are morphologically same. In general, the contrastive focus '*XP–(N)EUN*' tends to be stressed and specified rather than '*XP-neun*'.

We will examine the relevant data and analyzed based on the summarized properties of focus as in (99).

I support the movement hypothesis wirh respect to the Focus phenomena, since the properties of movement operation for Focus are prominent Therefore, before discussing the focalization applied to the Base-generation hypothesis. I explore first the analysis applied to the movement operation for the different types of foci.

Let us consider first that the various categories can be preposed with phonetic stress.

(100) a. PPALI Totoro-{NEUN/*neun} geod-neun-da.   (PP)

      fast   Totoro-CF/Top   walk-PRS-D

   'Totoro walks FAST'

  b. GEU PROJECT-LEUL   Samsung-{EUN/*eun} haenae-ss-da.   (Object)

    the   project-ACC   Samsung-CF/Top   achieve-PST-D

    'Samsung achieved THE PROJECT.' (that other companies didn't)

  c. EOTTEON PROJECT-LEUL Samsung-{EUN/*eun} haenae-ss-ni?   (Wh-object)

     which   project-ACC   Samsung-CF/Top   achieve-PST-Q

    'WHICH PROJECT did Samsung achieve? (not other companies)

  d. TOTORO-GA   bam-e   w-ass-da.   (Subject)

    Totoro-NOM   at night   come-PST-D

    'TOTORO came at night.'

  e. NU-GA   bam-e   w-ass-ni?   (Wh-subject)

    who-NOM   at night   come-PST-Q

    'WHO came at night.'

  f. Totoro-neun   CHAKHA-DA.   (verbal focus)

    Totoro-Top   good-D.

    'Totoro IS GOOD.'

  g. bam-e   Totoro-{NEUN/neun} piri-leul bu-n-da.   (Object)

    at night   Totoro-CF/Top   plute-ACC play-PRS-D

    'Totoro plays the plute at night'

<div align="right">[adapted from H.Choe 1995:272(3)]</div>

(100a-e) shows that various elements can be fronted/scrambled focus (except for Adjectives), but the verbal focus is stressed in-situ (I will not further discuss the case of verbal focus). As pointed out by Choe (1995), there is an interesting point with respect to the semantic effects which is observed in {–NEUN/neun} markerd XP. In (100g), the XP-neun which follows the un-focused adverbial can be interpreted both as a contrastive focus and a topic, whereas XP elements following the focused XPs are only interpreted as CF as in (100a-e). This means that a fronted focus cannot across a topic sentence boundary. Therefore it implies that it may involve a process of movement as focus movement. This accounts for the (99a) and (99b).

Second, in the case of short scrambling or preposed focusing including the case of in-situ, the case-drop phenomena appear in general.

(101) a. Totoro-ga dotori-Ø   gajyeoga-n-da.   (focus-in-situ)
          Totoro-NOM acorn-Ø take-PRS-D
       'Totoro takes an acorn'
     b. Totoro-ga   mwo-Ø   gajyeoga-ni?   (wh-in-situ)
        Totoro-NOM   what-Ø   take-Q
        'What does Totoro take?'
     c. mwo[103]-Ø   Totoro-ga   gajyeoga-ni?   (wh-movement)
        what-Ø   Totoro-NOM take-Q
     d. geu dotori-Ø Totoro-ga gajyeoga-n-da.   (scrambling)
        the acorn-Ø Totoro-NOM take-PRS-D
        'The acorn, Totoro takes (it).'
     e. GEU DOTORI-Ø Totoro-ga gajyeoga-n-da.   (focus-movement)
        'THE ACORN, Totoro takes (it).'

On the contrary to this, in the case of long-distance preposed elements, the case-drop is not allowed.

(102) a. *GEU DOTORI-Ø   May-NEUN [Totoro-ga gajyeoga-ss-da-go] saenggagha-n-da.
          the acorn-Ø   May-CF   Totoro-NOM take-PST-that   think-PRS-D
          'May thinks that Totoro took the acorn.'

---

[103] In Korena, 'mwo' is an abbreviation of 'mueos'. When the case is dropped in wh-words, it is natural to use this shorten word.

b. *MWO/MUEOS-Ø May-NEUN [Totoro-ga gajyeoga-ss-da-go] sanggagha-ni?

   what-Ø   May-CF   Totoro-NOM take-PST-D-that think-PRS-Q

   'What does May thinks that Totoro took?'

c. *geu dotori-Ø   May-NEUN/-neun [Totoro-ga gajyeoga-ss-da-go] sanggagha-n-da.

   the acorn-Ø   May-CF/Top   Totoro-NOM take-PST-that   think-PRS-D

   'May thinks that Totoro took the acorn.'

Given the fact that Case-Drop is only allowed in the Case Checking position as pointed out by Gill &Tsoulas (2004) and as is widely accecpted, a short distance preposed element may be in the Spec-v*P[104] or the Spec-TP. Also, as have been discussed in the literature, a long distance preposed element may be landed to the adjoined position of TP /v*P or TopP in CP-area forming A-bar dependency.

(103) Case Drop is possible iff the DP is in its Case Checking position.

                                                    [from Gill & Tsoulas 2004: 136(21)]

Bearing it in mind, let us consider the following sentence. As is pointed out by Gill & Tsoulas (2004:136), it is not straightforward to confirm a location of the preposed subject followed by a '–*neun*' marked object.

(104) a. Younghee-*(ga)   i chaeg-eun   sass-da.

       Y-*(NOM)   this book-CF   bought-D

     'Younghee bought this book (not other books)

                                                    [from Gill & Tsoulas 2004: ibid.(22)]

In this case, they argue that the presposed subject receives in a TopP adjoined position because the nominative case marker should not be dropped and that the '-neun' marked object as a contrastive focus is in the Spec-TopP assuming the phonetic feature of [+stress] as the [EPP] feature. However, in our proposal, the subject 'Yonghee' and the object 'i chaeg'

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[104] In Ch.3, I have assumed that the case position of subejcts is [Spec, v*P] due to the weak function of TP, which is normally nominative assigner. In the case of subjects in Spec-TP, I regard as a thematic topic, which may receives an abstract nominative case or default case. I maintain the assumption that the Spec-vP can assigns structural nominative case in Korean.

are regarded as being have undergone movement to CP-area. In section 5.4., the alternative analysis will be provided.

Turnign to the discussion, a piece of evidence that preposed focus is derived by a process of movement, not base −generated is easily found when it appears with a topic element. As can be seen in (105), the preposed focus or scrambled elements cannot cross the topic of the sentence.

(105) a. dotori-leul$_1$ May-ege$_2$ -{NEUN/*neun}   Totoro-ga   t$_1$ t$_2$ jueossda

      acorn-ACC May-DAT-CF/*TOP Totor-NOM   gave

      'Totoro gave the acorn to May (not other persons).'

  b. TOTORO-EGE   May-{NEUN/*neun} [nae-ga   geu   usan-eul   juesossda-go]

    Totoro-DAT   May-CF/*TOP   I-NOM   the umbrella   gave-that

    mitneunda

    believe.

    'May (even if other people do not believe) believes that I gave the umbrella TO TOTORO.'

The fact that the scrambled element 'dotori' (Eng. acorn) in (28a) and the preposed focus element 'TOTORO-EGE' (Eng. Totoro-dative) cannot precede the topic elements suggests that the FocP is lower than the TopP within the Cartography project. The '-*neun*' marked elements following the preposed focus elements are only interpreted as Constrastive Focus. In other words, the focus-focus order, that is, multiple focus, is captured here. The following is a brief summary of what has been discussed so far.

(106) a. Presposed focus/ Scrambled elements cannot across –*neun* marked topic elements.

    b. When preposed elements precede '-*neun*' marked elements, the '-*neun*' marked elements should be interpreted as Constartive Focus with stress, not Topic.

    c. In couclusion, FocP is lower than TopP and multiple Focus is possible.

When we began the discussion of focus, wh-elements was also considered a focus element. If it is true that wh-eleements are assumed to be focus, then the above mentioned conclusions would be compatible with wh-phrases.

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(107) a. May-{neun/NEUN}   eoje   nugu-leul   mannass-ni?

　　　May-TOP/CF　　yesterday　who-ACC met-Q

　　　'Who did May meet yesterday?'

　　b. May -{neun/NEUN}   [Totoro-ga   nugu-leul   mannatda-go]   saenggagha-ni?

　　　May-TOP/CF　　　　Totoro-NOM who-ACC met-that think-Q

　　　'Who does May thinks that Totoro met?'

(108) a. nugu-leul$_i$ May-{*neun/NEUN}   eoje   t$_i$ mannass-ni?

　　　who-ACC　May-*TOP/CF　yesterday　met-Q

　　b. nugu-leul$_i$ May -{neun/NEUN}   [Totoro-ga   t$_i$ mannassda-go]   saenggagha-ni?

　　　who-ACC　May-*TOP/CF　　　Totoro-NOM　met-that　　　think-Q

As can be seen in (108), the scrambled/focused wh-phrase with respect to the canonical word order, as in (107), cannot across the topic element *'–neun'* marked *'May-neun'*, rather the *'–NEUN'* marked contrastive focus *'May-NEUN'* can follows it such as the examples (108). Thus, the landing sidte of wh-preposing would be higher than topic position.

The scrambled elements (whether focused or not) and wh-phrases yield SCO and WCO effects. As shown in (109), SCO effects can be explained by the Condition C violation like Spanish:

(109) a.*[Minho-ui$_1$ eomma-leul]$_2$ geu-ga$_1$ t$_2$ joahanda.   *Condition C violation*

　　　Minho-GEN　mother-ACC he-NOM　　　like

　　　'He likes Minho's mother.'

　　　　　　　　　　　　　　　　[from Y.Lee 1992:523; cf. Mahajan 1990, Saito 1992]

　　b. *nugu-leul$_i$ geu-ga$_i$ [May-ga   t$_i$ joahanda-go]   saenggagha-ni?

　　　who-ACC　he-NOM　May-NOM　like-that　think-Q

　　　'Who does he thinks that May likes?'

　　　　　　　　　　　　　　　　[adapted from H. Choe 1995:295(56)]

The R-expression 'Minho' is base-generated in the complement position of the verb (i.e., as OV, here we igonore the LCA-type approach since this sentence is not in an environment that would give rise to wh-island constraints) and moves to the initial position of the sentence

leaving its trace behind. The trace/copy of R-expression 'Minho' is c-commanded by the co-indexed pronoun 'geu' (Eng.he) violating Condition C. If it was assumed that the R-expression 'Miinho' is base-generated in the surface position, the ungrammaticality of (109) would not be explained. By the same token, the wh-phrase 'nugu' (Eng. who) as a R-expression cannot be bounded by co-indexed pronoun 'geu' (Eng. he) on the surface position. The process of movement application to scrambling / preposing focus makes it possible to predict the ungrammaticality of the examples (109).

In addition to SCO effects, WCO effects[105] appear in focus sentences as a ground for supporting the movement hypothesis.

(110) *? nugu-leul$_1$ [geu-ui$_1$ adeul-eun] t$_1$ jongyeongha-ni?

      who-ACC   he-GEN   son-TOP   respect-Q

      'Who$_1$ does his$_1$ son respect?'

<div align="right">[from Cho 1994b: 266]</div>

In (110), the scrambled wh-phrase yields WCO effects which the wh-phrase 'nugu' (Eng. who) cannot be bound by the coreferential pronoun 'geu-ui' (Eng. his) on the initial position. As is widely well known, the required reconstruction of preposed elements in terms of interpretation involves A-bar movement. That is, the presposed focus should be interpreted in the canonical position and the moved position should be A-bar position. In the light of the fact that prespoed elements require a reconstruction for a proper interpretation as an A-bar movement, we can predict that the landing site of preposed elements may be [Spec-CP] or

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[105] Contrary to the (29), in Korean scrambling, the WCO effects violation is also observed and preposed elements in this case move to the A-position, rather than the A-bar position, thereby circumventing ungrammaticality, as illustrated in (i).

  (i) nugu-leul$_1$ [geu-ui$_1$ abeoji-ga] t$_1$ silheoha-ni?

    who-ACC   hi-GEN   father-NOM   dislike-Q

    'Who$_1$ did his$_1$ father dislike t$_1$?'

<div align="right">[from Cho 1994a: 18; based on Mahajan 1990]</div>

Ko (2017) argues that scrambling in Korean cannot be mapped into the "standard" dichotomy of A/A'-movement unlike Japanese. Based on her argument, we will deal with A/A'-movement, which allows us to predict where presposed elements in Korean and Spanish would be placed in which projections.

[Spec-vP]. In our proposal, however, scrambled elements will move to FinP considering the A and A' dependencies. The A/A'-distinction will be discussed in the next section.

Finally, as mentioned in (99f), preposing elements (or scrambling) are sensitive to Strong island constraints (Boskovic and Takahashi 1998: 359 for Japanese), but insensitive to Weak island, i.e., RM. (Fukui and Saito 1998:463 for Japanese).:

(111) Strong island sensitive   (Korean)

  a. $^?$eotteon dotori-leul May-ga [$_{PP}$ Totoro-ga *t* gajyeogan hue] ul-eoss-ni? (AC)

      which acron-ACC   *May-NOM*   *Totoro-ga*   *took*   *after*   *cry-PST-Q*

  b. $^{?*}$ eotteon dotori-leul May-ga [$_{CP}$ [$_{NP}$ *t*] gajyeoga-n [$_{NP}$ saram-eul] chaj-ass-ni?

      which acron-ACC   *May-NOM*   *took-COMP*   *person-ACC f* *ind-PST-Q*

                                                (CNPC)

(112) Weak island insensitive

  a. **Dotori-leul$_i$** May-ga [Totoro-ga *t$_i$* gajyeoga-ss-da]-go] mitenunda. (Korean)

     Acorn-ACC   *May-NOM*   *Totoro-NOM*   *take-PST-that*   *believe-D*

   'May believe that Totoro took the acorn.'

  b. **Dotori-leul$_i$ May-ege$_k$** [Bill-i [Totoro- ga *t$_i$* *t$_k$* [jueossda]-go] malhaessda.

     Acorn-ACC   *May-DAT*   *Bill-NOM* *Totoro-NOM*   *gave-that*   *said-D*

   'Bill said that Totoro gives the acorn to May.'

As noted ealier, (111) and (112) remind us of that the CLLD topicalization in Spanish and Scrambling in Korean have the parallelism in terms of island constraints. The differences and similarities in properties of the left peripheral elements in Spanish and Korean will be briefly summarized after the overall analysis.

We will now begin to discuss in-situ focus phenomena that are unmoved overtly such as wh-in-situ. In chapter 4 and the covert movement of this chapter, we have already found from empirical data that island constratins in terms of scope interpretations in wh-in-situ languages can appear in LF level or depending on the position of Q-markers. In the light of this fact, it can be infered that in-situ focus may appear some constratins on movement. As is expected, in-situ focus also appears SCO and WCO effects.

(113) a. *geu-ga$_1$ [MINHO-UI$_1$ eomma-leul]$_2$ joahanda. (cf. 28a)

he-NOM   Minho-GEN   mother-ACC   like

'He likes Minho's mother.'.

b. *? [geu-ui₁   adeul-eun]   NUGU-LEUL₁   jongyeongha-ni?   (cf. 29)

he-GEN   son-TOP   who-ACC   respect-Q

'Who₁ does his₁ son respect?'

This fact makes it possible to assume that there is a covert movement where focus is in-situ.

(114)

Preposed / Scrambled focus	In-situ focus
a.	**a.**
(108) nugu-leul*ᵢ* May-{*neun/NEUN}*ⱼ* eje *tⱼ* *tᵢ* mannass-ni? who-ACC May-*TOP/CF yesterday met-Q	

Setting the inflectional verbal morphemes merging on the rightward aside, the covert and overt movement of topic and focus elements may involve derivation processes, but our analysis assumes that CF elements move to FinP, as depicted above. Indeed, the presposed focus/ scrambled elements in (115) and in-situ focus in (116) have the same interpretations as in (117).

(115) a. May-ga   NUGU/TOTORO-LEUL   mannass-ni?

May-NOM   who/Totoro-ACC   met-Q

'Who did May met?'

b. Appa-ga   [May-ga   NUGU/TOTORO-LEUL   mannassda-go] saenggagha-ni?

fathe -NOM   May-NOM   who/Totoro-ACC   met-that   thinks-Q

'Who do you think that May met?' / Does your father think that May met Totoro?'

(116) a. NUGU/TOTORO-LEUL   May-ga   t   mannass-ni?

        who/Totoro-ACC   May-NOM   met-Q

   b. NUGU/TOTORO-LEUL   Appa-ga   [May-ga   t   mannassda-go] saenggagha-ni?

       who/Totoro-ACC   fathe –NOM   May-NOM   met-that   thinks-Q

(117) a. for x = Totoro, May met x

   b. for x = Totoro, her father thinks that May met x

As we have studied so far, Korean exhibits case-drop phenomena in case checking positions, but preposed focus/ scrambled elements do not allow case-drop. This implies that a movement process involved is A-bar movement and the accusative case marker plays a role as meaning the [+specific] and [+definiteness] such as determiners (definite articles) or clitics in Spanish.

   This fact leads us to conclusion that Korean scrambling / preposing focus and Spanish CLLD and FF have similarities in giving discourse effects through movement and case markers. The difference only found in scrambling of Korean and CLLD in Spanish is that resumptive pronouns are not required in Korean as much as in Spanish.

(118) a. **Dotori-leul_i**   May-ga [Totoro-ga *(*geugeos-eul)_i*   gajyeoga-ss-da]-go]   mitenunda.

    Acorn-ACC   *May-NOM*   *Totoro-NOM*   *it-ACC*   *take-PST-that*   *believe-D*

   'The acorn, May believe that Totoro took (it).'

   b. eotteon dotori-leul   May-ga [PP Totoro-ga   *(*geugeos-eul)_I*   gajyeogan hue]

     which acron-ACC   *May-NOM*   *Totoro-ga*   *took*   *after*

   ul-] eoss-ni? (AC)

    cry-PST-Q

   'Which acorn did May cry acter Totoro took (it)?

   c. eotteon dotori-leul   May-ga   [CP [NP *(*geugeos-eul)_I* gajyeoga-n [NP saram-eul]

    which acron-ACC   *May-NOM*   *took-COMP*   *person-ACC f*   *ind-PST-Q*

   chaj-ass-ni? (CNPC)

    ind-PST-Q

When the resumptive pronouns are inserted, the ungrammaticality in the island environments does not improve at all. Rather, the grammaticality of sentences in Strong islands as in (118b-c) is better when there is no the resumptive pronoun '*geugeos*' (Eng. it). If the presposed elements were base-generated, then we could assume a null pronoun '*pro*' in the position of resupmtive pronoun. Nontheless, as we have first assumed in this section, I regard that scrambling/ preposing are the result of focus movement since the properties of movement by binding test have significantly exhibited.

As a consequence, scrambled, presposed elements and presposed wh-phrases as well as in-situ focus and in-situ wh-phrases undergo all focus movement not only ovetly but also covertly forming variables. The following summarizes the properties of focus as a movement operation in Korean we have examined so far.

(119) a. Only **[topic]-[focus] order** is possible (i.e., [focus]-[topic] is not allowed)

  b. **Multiple focus** is possible whithout hierarchy among them such as

   -[wh-ga]-[XP-NEUN]

   -[XP-ga]-[XP-NEUN]

   -[XP-NEUN]-[wh-leul].

  c. Properties of **syntactic movement** such as island constraints (but it is somewhat insesntive to weak island) and SCO/WCO effects

  d. **Obligatory case marker** −(l)eul

  e. **Short** focus (or scrambling) movement[106] forms **A-movement** dependency and **long-distance** focus movement forms **A-bar** dependency in terms of **case-drop** phenomena.

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[106] The existing appraoches in the literature with respect to short and long distance scrambling can be summarized as follows:

 (i). Long-distance scrambling

   a. Base-generation in surface position and LF lowering to canonical position by [thematic role] (Bošković & Takahasi 1998)

   b. A'-movement to Spec-FocP by [+(contrastive) focus] feature (Miyagawa 1997, 2001; Stjepanović 1999)

   c. Resumptive chain by extensive use of null anaphora: Move under Match in the absence of Agree (Boeckx 200;, Kuroda 1988; Fukui 1986)

f. Appearance of **resumptive pronouns,** which are in island environments, degrades the grammaticality of a sentence.

Before moving on to the next section, we have seen that short-movement forms an A-movement dependency in terms of case-drop, but there have been many challenges and discussions that scrambled elements exhibit both A and A-bar movement effects (Cho 1994ab, 1996, Y.Lee 1993, 1994, Y.-H. Kim 1999, Jung 2002, R.Kim 2003, K. Lee 2003, Lee and Cho 2003a, Y. Choi 2004a, H.Lee 2006, Ko 2017). Again, it seems reasonable to assume that scrambled/ preposed elements are subject to a certain principle as a movement operation showing the nature of fully configurational language, not ramdomly movement as a non-configurational language, as argued by Ko (2017). Following Ko (2017), I assume that scramling in Korean as a focus movement (but our proposal will also consider FinP) may make a difference in a A/A-bar movement depending on the interaction between grammar components in syntax and interfaces.

As we have just discussed, some recent studies have converged on the conclusion that scrambling (i.e., presposed element as focus) involve a movement process for various reasons, but **Base-generation hypothesis** has also been raised by the **optional movement** yielding **vacuous meaning**.

Although Hale's (1980, 1983) configurationality parameter is the most standard base-generation approach without assuming any of movement, Bošković & Takahashi (1998) (B&T) developed the Hale's pure base-generation approach into LF-lowering yielding optional movement (initially claimed by Saito (1985) and Hoji (1985)).

(120)[**Sono hon-o**   [John-ga   [[Mary-ga __   [katta to] omotteiru]]   (Japanese)

the book-ACC   John-NOM   Mary-NOM   bought that   thinks

LF-lowering

(ii). Short-distance scrambling

    a. Remainig in base-generated position or LF lowering to VP to license the numeral (Bošković & Takahasi 1998; Miyagawa 1989)

    b. A-movement to Spec-v*P by [+EPP] or [+specific] feature (Miyagawa 1997, 2001; Chomsky 2001, Mahajan 1990; Webelhuth 1992; Diesing 1997)

    c. A'-movement to Spec-FocP by [+(contrastive) focus] feature (Miyagawa 1997; McCawley 1976; Niinuma 2000; Saito 1983)

    d. (P)rosodic movement (Zubizarreta 1998)

This is based on the fact that the scrambled element has no semantic effect, resulting in optional scrambling. The fact that optional scrambling is drived from the motivation of θ-role features checking[107] as a *Last Resort* principle (Chomsky 1993, 1995) is well constitent with the theoretical concept within minimalist program. As seen in Korean, however, it is possible for only the element replying to that wh-question to be scrambling (i.e., only focus element), any constituent in the sentence randomly cannot be a long-distance scrambled one[108].

(121) A: John-eun [Mary-ga   mueos-eul   sa-ss-da-go]   senggagha-ni?   (Korean)

     John$_{-TOP/NOM}$ Mary$_{-NOM}$ what$_{-ACC}$ buy-PST-DEC-that   think-Q

     'What does John think Mary bought?'

  B: Sagoa han gae-leul$_i$ John-eun [Mary-ga t_i sa-ss-da-go]   senggaghan-da

     apple one CL$_{-ACC}$ Jon$_{-TOP/CF}$ Mary$_{-NOM}$ buy-PST-DEC-that think-DEC

  B':*__Mary-ga$_i$__ John-eun [t_i sagoa han gae-leul   sa-ss-da-go]   senggakhan-da

     Mary$_{-NOM}$ John$_{-NOM}$ apple one CL$_{-ACC}$ buy-PST-DEC-that think-DEC

     'John thinks that Mary bought one apple.'

This shows that scrambled elements have semantic effects.

    Another empirical evidence supporting base-generation hypothesis is the interpretaion part observed in the scope of scrambled Quantifier Phrase (QP) as follows:

(122) [Daremo-ni]$_i$ [dareka-ga   [Mary-ga t_i atta to] omotteiru.   (Japanese)

    evveryone-DAT   someone-NOM   Mary-NOM   met that   thinks

  '(lit.) Everyone, someone thinks that Mary met.'

  a. for some *x, x* a person, *x* thinks that for every *y, y* a person, Mary met *y*

  b. *for every *y, y* a person, ther is some *x, x* a person, such that *x* thinks that Mary met *y*

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[107] B&T's (1998) analysis conceives θ-role features as uninterpretable features that should be eliminated.

[108] As presented in Boeckx (2003:90), in Serbo-Croatian any constituent in a sentence cannot randomly scrambled unless it is the anwer to the question.

The scrambled QP *everyone* adduced in (122) cannot take scope over the matrix QP scope *someone* and thus, the scope of scrambled QP is determined at LF whereby being c-commanded by the matrix QP subject *someone*. The scrambled QP scope substantiates the contention in Saito's property of long distance scrambling as 'semantically vacuous' A'-movement (undoing of scrambling in Saito's (1992) terminology).

However, this judgment varies for Korean native speakers as indicated by Johnston & Park (2001). In the case of Korean, the QP 'every person' can have a wide scope interpretation, which induces an ambiguous reading, unlike Japanese:

(123) [Modeun saram]ᵢ-eul   [nugunga-ga   [Mary-ga t_i mannassda-go] saenggaghanda.

      evveryone-ACC   *someone-NOM*   *Mary-NOM*   *met that*   *thinks*

  a. for some *x*, *x* a person, *x* thinks that for every *y*, *y* a person, Mary met *y*

  b. for every *y*, *y* a person, ther is some *x*, *x* a person, such that *x* thinks that Mary met *y*

                                    [from Johnston & Park 2001: 728(3)]

As will be discussed later, empirical data that scrambling in Korean exhibits both A and A-bar properties in binding tests will be provided. This means that non-standard A/A'-dichotomy in Korean are result of movement operation.

Furthermore, Bošković & Takahashi's (1998) the base-generation with LF lowering analysis holds the problem that the lowering is banned in the *Proper Binding Condition* (i.e., traces must be bound) (Fiengo 1977; recited in Bailyn 2001:640 (9)) and Kayne's (1994) LCA approach which only allow leftward movement as discussed in the previous chapter[109].In addition, there would have been no way to account for ungrammaticality determined by island constraints and Condition C violation, if scrambled elements were Base-generated. The results of the analysis that scrambling has some sort of discourse force by means of movement operation in syntax are also well compatible with the relationship between **Internal Merge (IM)** and discourse properties in Chomsky's terminology (Chomsky 2001, 2001a). If scrambled elements were gerenerated by **External Merge** (**EM**), they would make the wrong predictions that ungrammaticality founding in Binding tests would be all grammatical.

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[109] Boeckx (2003) points out that a covert movement of non operators in a few case does not apply to neither the LCA , nor the PBC and lowering is licit.

As a consequence, we consider that **scrambled XP** (i.e., subjects, objects and wh-phrases) and **presposed focus** with stress **all** involves **overt focus movement** and **in-situ XP** (including wh-phrases) and **in-situ focused XP** with stress also undergo **covert movement**. However, considering that the second scrambled element marked by'-neun' have the contrastive focus reading in multiple foci, I will suggest that it occupies in FinP in the subsequent proposal.

In the next section, we will discuss whether topicalization can be analyzed as base-generation or as a movement operation. In addition, the differences between scrambling and topicalization in Korean wll also be considered.

5.3.3.2.3. Topicalization in Korean

The ground for supporting the base-generation for topicalization in Korean is the possibility of the overt resumptive pronouns. As we have seen before, in the case of scrambling, the co-indexed pronoun with respect to the preposed element is not allowed in that construction, while the topicalized element by the topic marker '*-neun*' marked optionally permit its coreferential pronoun as in (8b).

(124) a. Totoro$_i$-leul   May-ga   (*geu$_i$-leul)   johahanda.   (Korean)

       Totoro-ACC   *May-NOM*   *he-ACC*   *likes*

  'Totoro, May likes him.'

  b. Totoro$_i$-neun   May-ga   (geu$_i$-leul)   johahanda.

       Totoro-TOP   *May-ga*   *he-ACC*   *likes*

  'As for Totoro, May likes him.'

The detailed construction for (8b) could be described as follows:

(125) [$_{TopP}$ Totoro$_i$-neun   [$_{CP}$ [$_{IP}$ May-ga   geu$_i$-leul/*pro*$_i$ johahanda]]]].

In (124b), the explanation is two-fold. One is that when the resumptive pronoun is placed in the complement position of V, the θ-role requirement of the verb is satisfied. The other is that when the resumptive pronoun is not present, we assume that the gap is occupied by pro e_i is also θ-marked by the verb, which renders (124b) fine.

In general, it is known that topicalization in Korean does not obey island constratins, while English and Spanish does. I compare English to Korean focusing on the island environment as adduced in (125c,d):

(125) a. I believe that you should read this book

　　　b. this book, I asked Bill to get his students to read

　　　c. *this book I accept the argument that John should read (CNPC)

　　　d. *this book, I wonder who read (the Wh-island consdition)

(126) a. Na-neun [neo-ga i chaeg-eul　ilgeo-yahanda-go] saenggaghanda.

　　　　 I-NOM　you-NOM this book-ACC read-should-that　　believe.

　　　b. i chaeg-eun Na-neun [neo-ga　t　ilgeo-yahanda-go] saenggaghanda.

　　　　 this book-TOP I-NOM/CF　you-NOM read-should-that　　believe

　　　c. i chaeg-eun Na-neun [John-i　t　ilgeo-yahanda-neun] jujang-eul]] badadeulinda.

　　　　 this book-TOP I-NOM/CF John-NOM read-should-that　argument　accept

　　　d. i chaeg-eun Na-neun [nu-ga　t　ilg-neunji] gunggeumhada.

　　　　　this book-TOP I-NOM/CF　who-NOM read-Q wonder

As observed in (126c,d), which is the island constructions, the topiclized element can be easily subextracted from the complex NP as in [–neun jujang-eul] and the wh-island marked by [-neunji]. However, it seems impossible to extract the topicalized elements from the Strong island construction, contrary to the (126c) which is also CNPC.

(127) a. *Dotori-neun$_i$　May-ga　[$_{CP}$ [$_{NP}$ t$_i$　gajyeoga-n [$_{NP}$ saram-eul] chajgoissda. (CNPC)

　　　　 acron-TOP　May-NOM　　　　　took-who　　person-ACC search-be-PRS

　　　　 'As for the acorn, May is searching the person who took it.'

　　　b. *Dotori-neun$_i$　May-ga [$_{PP}$ Totoro-ga　t$_i$　gajyeogan hue] ul-eoss-da (AC)

　　　　 acron-TOP　May-NOM　Totoro-ga　　　took　　after cry-PST-D

　　　　 'As for the acorn, May cried after Totoro took (it).'

The ungrammaticality of (127) can be improved by means of the coreferential pronouns.

(128) a. Dotori-neun$_i$　May-ga　[$_{CP}$ [$_{NP}$ geugeos-eul$_i$　gajyeoga-n [$_{NP}$ saram-eul] chajgoissda.

acron-TOP   May-NOM   it-ACC took-COMP   person-ACC   search-be-PRS

'As for the acorn, May is searching the person who took it.'

    b. Dotori-neun$_i$ May-ga [$_{PP}$ Totoro-ga   geuegos-eul$_i$ gajyeogan hue] ul-eoss-da.

      acron-TOP   May-NOM Totoro-ga   took   after cry-PST-D

      'As for the acorn, May cried after Totoro took (it).'

In the case of (128), the topic marker '-neun' can be dropped or '-maliya' (Eng. as for, speaking of) can be attached to the 'dotori'. It suggests that the omittable '-neun', which we have studied in the previous chapter, is applicapable to base-generation like HT in Spanish.

Other pieces of empirical evidence for base-generation hypothesis are the nominalized predicates which have the form *V-ki* as we have seen in Ch.3 (in section 3.2.2.3) and 'possessor raising' construction as we have discussed at the beginning of this chapter (see the example (25) in section 5.1.).

(129) a. [ttui-ki-nuen]$_i$ tokki-ga {0}$_i$ gajang jal ttuinda.   (Korean)

        run-N-TOP/CF   rabbit-NOM   most well run

   'As for running, the rabbit runs best well.'/ 'Rabbits run best (in general), but other types

    of animal no.'

  b. [kokkili-neun]$_i$ ko-ga {0}$_i$ gilda.

    elephant-TOP/CF   nowe-NOM   long

   'As for elephants, noses are long.'/ 'Noses of elephants are long (in general), but other

    types of animal no.'

[adapted from H.Choe 1995:307]

The *V-ki-neun* and the *NP-neun* in (129), two interpretations are possible. When '*-neun*' is not stressed, it is interpreted as 'speaking of' or 'as for', which is equivalent of HT in Spanish, while when '-NEUN' receives the focal stress, it should be interpretaed as 'contrasstive focus'. H. Cho (1995) aregues that the topicalizaed part [ ] is the result of movement operation because the [ ] part can also appear at the position {0}. However, I believe it should be regarded as CF since if the [ ] part is in the position {0}, it is only interpreted as CF. In conclusion, we can conceive *V-ki-neun* of being base-generated in the sentence initial

position, but in the case of the *NP-neun* in (129b), it seems reasonable to assume the 'possessor raising' as traditionally analyzed.

The topicalization in Korean discussed so far leads us to assume that –neun marked topic may a byproduct of base-generation, given the *'–nuen'* drop and appearance of co-indexced resumptive pronouns, but in fact some traits of movement operation also appear. Firstly, an element assigned the 'theme' role from a verb can occupy in the sentence initial with topic marker –neun in passive construction. Let us return to the example (130):

(130) a. May-ga   Totoro-leul   jabass-da.   (Korean)

       May-NOM   Totoro-ACC   caught-DEC

    'May caught Totoro.'

  b. Totoro-ga   May-hanthe   jab-hi-eoss-da.

       Totoro-NOM   May-by   catch-PAS-PST-DEC.

    'Totoro was caught by May.'

As noted ealier, (130b) is the passive sentence with respect to the (130a) which is the active construction. The 'Totoro' receives 'theme' role by the verb 'jab-' (Eng. catch) and undergoes the fronting to receive 'nominative' case in the sentence initial position. At this point, the topic marker *'-neun'* can be attached to 'Totoro' and then the *'-neun'* marked NP gives topic reading.

(131) Totoro-neun   May-hanthe   jab-hi-eoss-da.   (Korean)

     Totoro-TOP   May-by   catch-PAS-PST-DEC.

   'Totoro was caught by May.'

Although the topic marker can not accompany with the nominative case marker '-ga', with which can be a piece of evidence for movement from VP (whereas the dative marker '-hanthe' can appear together with topic marker '-neun' as in (132b)), it

(132) a. Totoro(*-ga)-neun   May-hanthe   jab-hi-eoss-da.   (Korean)

    b. May-hanthe-neun   Totoro-ga   jab-hi-eoss-da.

In passive sentence, which is a typical transformational construction, the fact that the topic marker *'-neun'* is allowed in passive sentences leads to assumption that movement operation may have been applied to the topic element. The movement route can be assumed to have twofold; One is that a XP has moved to Spec-vP to receive a nominative case (in our analysis, the structural nominative case in Korean may be assigned in Spec-vP, not Spec-TP[110], as noted in ch.3) after the internal thematic rope has been assigned to XP from VP[111], and then moves to Spec-TopP in CP-domain by topic feature. The other is that like the former, after a XP receives the internal thematic role from the verb in VP, and directly moves to Spec-TopP. Otherwise, we can suggest, alternatively, that topic is directly base-generated at the sentence initial position and 'null pronominal operator' moves to adjacent position to Topic after receiving 'thematic role' from VP, forming topic-comment relation as in (133c):

(133) a. $[_{CP}$ $[_{ToP}$ Totoro$_i$-neun $[_{TP}$ $[_{vP}$ ~~Totoro$_i$-ga~~ $[_{vP}$ May $[_{vP}$ jab- ~~Totoro$_i$~~$]$

    b. $[_{CP}$ $[_{ToP}$ Totoro$_i$-neun $[_{TP}$ $[_{vP}$ $[_{vP}$ May $[_{vP}$ jab- ~~Totoro$_i$~~$]$

    c. $[_{CP}$ $[_{ToP}$ Totoro$_i$-neun pro$_i$ $[_{TP}$ $[_{vP}$ $[_{vP}$ May $[_{vP}$ jab- ~~pro$_i$~~$]$

There are non-trivial papers suggesting that 'null operator movement' (a covert movement) is required in Korean (H.Choe 1995; H.Lee 2007). This is because Korean, which we studied in chapter 2, exhibits the traits of topic prominence or discourse-oriented languages (Li & Tompson 1976; Tsao 1977; Huang 1984). The fact that 'null subject' and 'null object' phenomena appear in Korean as in (134) and '-(n)eun' marked preverbal subject gives 'contrastive topic' (henceforth, CT) reading as in (135) to form contextual variables can endorse the assumption of the existence of a 'null pro operator' and its movement.

(134) [Geu-eun$_i$], [Zhangsan-i   [Lisi-ga e_i molassda]-go   malhaessda]]   (Ch)

    he-TOP   Zhangsan-NOM   Lisi-NOM e-ACC didn't know-that   said-PST-DEC

    '[As for him], Zhangsan said that Lisi didn't know [∅]'

---

[110] In our work, as will be mentioned later, in our analysis, TP is the proejction in Korean that is reponsible for the formation of topic-comment yielding generic reading (or it can be called 'unmarked topic as suggested by H. Lee (2007). Thus, we assume that the thematic subject marked by '-neun' is located in this position.

[111] At this point, that is to say, when verb and complement is merged, we assume that the inflectional morphemes such as tense, modal and illocutionary force are yet merged. As I suggested in ch.3, the verb part are merged at the PF representation at one swoop.

(135) a. Totoro-neun   dongmul-ida.   (Korean)

      Totoro-TOP/CT   animal-be

      'Totoro is an animal.'/ '(Shrek is a monster, and Olaf is a swowman)'

  b. Totoro-neun   geu dotori-leul   gajyeoganda

      Totoro-TOP/CT   the acorn-ACC takes

      'Totoro takes the acorn'/ '(Shrek takes mud, and Olaf takes snow)'

The preverbal subject marked by *'-neun'* considerably induces confusion as to whether it should be considered the subject makred by the case marker *'-i/-ga'*:

(136) a. Totoro-ga   dongmul-ida.   (Korean)

      Totoro-NOM/FOC   animal-be

      'Totoro is an animal.'/ 'TOTORO is an animal/'

  b. Totoro-ga   geu dotori-leul   gajyeoganda

      Totoro-NOM/FOC   the acorn-ACC takes

      'Totoro takes the acorn'/ 'TOTORO takes the acorn'

As re-pointed out in Rubio Alcalá (2014), in Japanese, subjects must be marked with the *'-ga'* nominative marker can give focus effects as in an embedded clauses. The same is true for Korean:

(137) a. Taroo-ga/*-wa   hana-o   katta koto...   (Japanese)

      Taroo-FOC/*TOP flowers   bought fact

      'The fact that Taroo bought flowers...'

  b. Taroo-ga/*-neun   kkot-eul   sassdanuen   sasil...   (Korean)

      Taroo-FOC/*TOP   flowers   bought   fact

      'The fact that Taroo bought flowers...'

                       [adapted from Rubio Alcalá 2014:12 footnote 5]

Therefore, the nominative marked element *'Totoro'* in the exmpales (136) gives an 'neutral reading' or 'focus reading' when the *'-ga'* is focal stressed such as *'-GA'*. Thus, it seems necessary to distinguish between preverbal subjects marked by *'-ga'* and *'-neun'* in Korean, even though some papers provide an analysis that both subjects marked by *'-ga'* and *'-neun'*

can appear in Spec-TP. Moreover, considering that the topic markered subjects form contextual variables for CT readings and focus marked (case marked) subjects also yield variables, as we discussed in the previous section, two markers should appear in different projections with different functions. I would like to suggest that the positions that subjects occupy are Spec-TP for the *'-neun'* marked subject and Spec-vP for *'-i/-ga'* marked subject, repectively:

(138) [$_{CP}$ C [$_{TP}$ Topic marker '*-neun'* [$_{v*P}$ -Nominative case marker *'-ga/-i'* [$_{VP}$ EA [$_{v'}$ IA]]]]]

It is also observed in the cleft sentence that the case marked subjects receive focus reading in v*P. I put here again the cleft construction introduced in chapter 2 (the example (68)):

(68) [$_{CP}$ C [$_{TP}$ Totoro-ga$_i$ gajyeogan geos-eun [$_{v*P}$ dotori   du gae$_j$ [$_{VP}$ t$_i$ [$_{v'}$ t$_j$]]]]]
           Totoro-NOM   took   FIN-TOP/FOC acorn   two Cl-COP-D
    'It is two acorns that Totoro took.'   *Cleft Sentence*

In (68), the morpheme '*-goes'* is regarded as the marker 'finiteness' according to Saito (2010), which we have discussed in the previous chapter, even if originally it plays a role as the nominalizer as introduced in chapter 2.

   Interestingly, in Gallego (2010:215), it is argued that the preverbal subjects and postverbal subjects in Spanish arise topic and focus readings, respectively, adopting Raposo & Uriagereka's (1995; 2002) suggestion. The relevant rule and data are as follows:

(139) [$_{CP}$ C [$_{TP}$ TOPIC READING   v*-Ts [$_{v*P}$ FOCUS READING   [$_{VP}$ EA [$_{v'}$ IA]]]]]
                                                    [from Gallego 2010:215 (173)]

(139) shows that a topic reading is achieved in preverbal position, i.e., Spec-TP and a focus reading is realized in postverbal position, i.e., Spec-v*P. The 'v*-Ts' means a connectivity of v* and T due to the movement of elements in v*P to T. Indeed, as explained ealier, this is based on the fact that the movement of verbs in Spanish affects the peripheral elements yielding discourse effects readings.

(140) a. [$_{CP}$ C [$_{TP}$ Juan$_i$ Ts   escribe$_j$ [$_{v*P}$ t$_i$ t$_j$]]]   (Spanish)

Juan   write-3.sg

'Juan writes' (=Juan is a writer) [categorical interpretation]

b. [$_{CP}$ C [$_{TP}$ Ts   escribe$_j$ [$_{v*P}$ Juan$_i$ t$_j$]]]

write-3.sg   Juan

'Juan writes' (=It is Juan who writes/ Juan is writing now) [thetic interpretation]

[from Gallego 2010:216 (175)]

As seen in (140), the movement of the verb 'escribe' (Eng. writes) is observed in both preverbal and postverbal subjects constructions. Thus, I assume that subjects marked by '-neun' corresponds to the preverbal subject in Spanish and the subjects marked by '-i/-ga' appears in Spec-v*P[112] as postverbal subjects in Spanish.

---

[112] The assumption with respect to the existence of v*P is based on the deeper structure of VP as argued by Hale & Keyser (1993) and Larson (1988) That is to say, for instance, the verb 'break' can be decomposed into two projections since verbs semantically imply the meaning of 'cause' or 'become' that induces an event. The relevant structures are as follows:

(i) a. John broke the glass

   b. X break Y = [X   [CAUSE [Y [broken]]]]

(ii) a. John killed Pedro

   b. X kill Y = [X   [CAUSE [Y BECOME [dead]]]]

In the case of Korean, the 'CASUE' is realized as the morpheme '-(ha)gae hada' and the 'BECOME' is expressed as the morpheme '-gae doeda':

(iii) a. X break Y = [X   [-gae hada [Y [kkejin]]]

    b. John-i   uri-leul   kkeji-gae ha-da.

      John-NOM   glass-ACC   broke-CAUSE

(iv) a. X kill Y = [X [-gae hada [-gae doeda [Y dead]]]]

   b. John-i   Pedro-ga/leul   jug-gae doe-gae hada.

     John-NOM   Perdo-NOM/ACC   dead-BECOME-CAUSE.

The assumption that 'External Argument' (EA) can be directly base-generated in Spec-v*P is on the basis of the *'Burzio's Generalization'*, in which the v* plays a role as assigning 'Agent theta role' to EAs and the accusative case to IA (Internal Argument) in VP. I assume that the existence of v*P and base-geerated subjects in Spec-v*P make 'post-verbal subjects' in Spanish and 'case marked subjects' in Korean legitimate at this positon. In this work, I will not consider the case of v, which encodes unaccusative structures.

(141) a. Subjects marked by '-neun' in Korean corresponds to the preverbal subjects in Spanish.

b. Subjects marked by '-i/-ga' in Korean corresponds to the postverbal subjects in Spanish.

Thus, in Korean, the construction of the subject marked by '-neun' and the subject marked by '-i/-ga' can be depicted as follows:

(143) a. Totoro-neun   geu dotori-leul   gajyeoganda
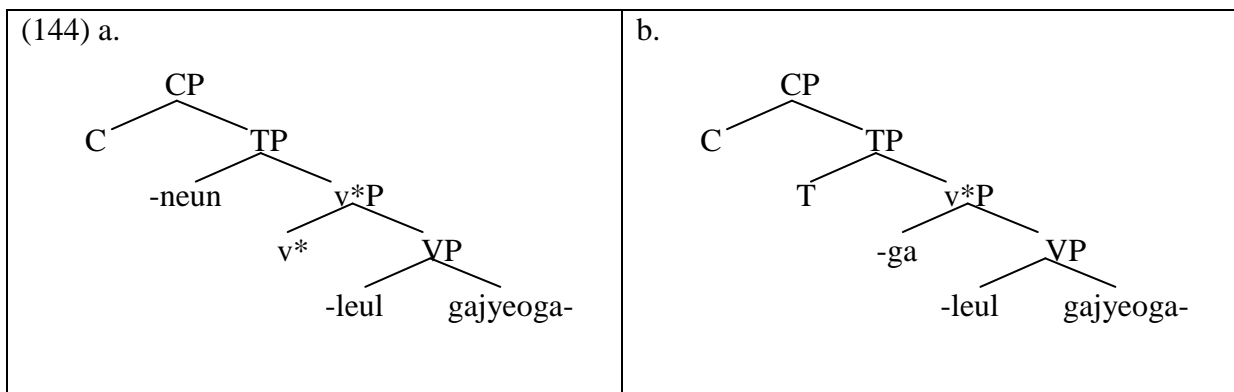
Totoro-TOP/CT   the acorn-ACC takes

'Totoro takes the acorn'/ '(Shrek takes mud, and Olaf takes snow)'

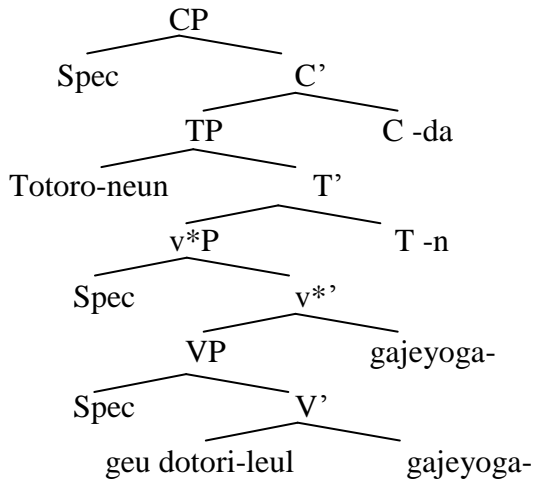b. Totoro-ga   geu dotori-leul   gajyeoganda

Totoro-NOM/FOC   the acorn-ACC takes
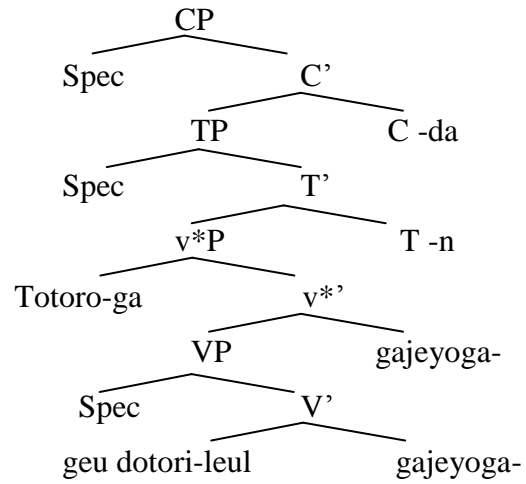
'Totoro takes the acorn'/ 'TOTORO takes the acorn'

(144) a.

b.

The structure in which the inflectional morphemes of the verb stem 'gajyeoga-' (Eng. take) is as follows:

(145) a.
```
                CP
          /           \
        Spec           C'
                    /        \
                  TP          C -da
             /        \
       Totoro-neun     T'
                   /        \
                 v*P         T -n
              /      \
           Spec       v*'
                   /       \
                 VP        gajyeoga-
              /      \
           Spec       V'
                   /      \
         geu dotori-leul   gajyeoga-
```

b.
```
                CP
          /           \
        Spec           C'
                    /        \
                  TP          C -da
             /        \
          Spec         T'
                   /        \
                 v*P         T -n
              /      \
        Totoro-ga     v*'
                   /       \
                 VP        gajyeoga-
              /      \
           Spec       V'
                   /      \
         geu dotori-leul   gajyeoga-
```

The inflectional morphemes '-n' (present tense morpheme) and '-da' (declarative morpheme) will merged with the verbal root 'gajyeoga-' (Eng. take) in the phonological component according to Halle and Maranz (1993), Bobaljik (1994), Lasnik (1995) and Takano (2004). The 'roll-up movement' approach which allows only the leftward derivation under LCA hypothesis studied in chapter 3 will be left for future research.

At this point, we should decide whether the topic elements marked by '-neun' is a product of the movement operation or the base-generation. In this dissertation, I consider the topic elements marked by '-*neun*' as the result of a movement contrary to H.Choe (1995) and H.Lee (2008). We have confirmed in the previous sections that Korean scrambling as the focus movement generally appears SCO and WCO effects (however, there are cases where scrambling does not yield WCO effects. We will be dealt with this issue in the next section).

Next, let us consider first whether a topic element yields SCO effects comparing the focus (scrambling) sentence with the topic sentence. In order for the judgement of grammaticality, it can be judged by chaning the accusative marker '-(l)eul' in scrambling construction into the topic marker '-(n)eun':

(146) a. *nugu-leul$_i$ geu-ga$_i$ [May-ga   t$_i$ joahanda-go]   saenggagha-ni?
      who-ACC   he-NOM   May-NOM   like-that   think-Q
      'Who does he thinks that May likes?'

[adapted from H. Choe 1995:295(56)]

b. ?Totoro$_i$-neun   geu$_i$-ga [May-ga   t$_i$ joahanda-go] saenggagha-n-da.

Totoro-TOP   he-NOM May-NOM like-that   think-PRS-D

'Totoro$_i$, he$_i$ thinks that May likes (him$_i$).'

[adapted from H. Choe 1995:314(104b)]

To my ear, it gives me an unnatural expression, when the topicalized element 'Totoro-neun' is co-indexed with the pronominal 'geu-ga' (Eng. he-NOM). Thus, the topic element does seemt to have SCO effects. If the resumptive pronoun is located in VP, it conveys an ungrammatical expression as well.

(147) a. *Totoro-leul$_i$ geu-ga$_i$ [May-ga   (*geu-leul$_i$)   joahanda-go]   saenggagha-n-da

who-ACC   he-NOM   May-NOM he-ACC   like-that   think-PRS-D

'Totoro$_i$, he$_i$ thinks that May likes (*him$_i$).'

b. ??Totoro$_i$-neun   (geu$_i$-ga) [May-ga   ?geu-leul$_i$ joahanda-go] saenggagha-n-da.

Totoro-TOP   he-NOM May-NOM he-ACC   like-that think-PRS-D

'Totoro$_i$, he$_i$ thinks that May likes (him$_i$).'

Like Scrambling, the topicalized sentence as in (147b) shows SCO effect when the resumptive pronoun 'geu-leul' (Eng. him) appears in embedded clause. Furthermore, as in (148b), topicalized elements marked by '-neun' yield SCO which can be explained by the Condition C violation such as focus-scrambling sentences as in (148a).

(148) a. *[Minho-ui$_1$ eomma-leul]$_2$ geu-ga$_1$ t$_2$ joahanda.   *Condition C violation*

Minho-GEN   mother-ACC he-NOM   like

'He likes Minho's mother.'

b. *[Minho-ui$_1$ eomma-neun]$_2$ geu-ga$_1$ t$_2$ joahanda.   *Condition C violation*

Minho-GEN   mother-ACC he-NOM   like

'He likes Minho's mother.'

To my intuition, it is judged that (148b) exhibits the SCO effects like (148a). The same holds for relative clauses:

(149) a. *[John-ui$_1$ adeul-eul]$_2$ geu-ga$_1$ [Mary-ga t$_2$ ttaelyeossda-go] saeggaghanda.

John-GEN son-ACC   he-NOM Mary-NOM   hit-C   think

'He$_i$ thinks Mary hit John$_i$'s son.'

   b. *[John-ui$_1$ adeul-eun]$_2$ geu-ga$_1$ [Mary-ga t$_2$ ttaelyeossda-go] saeggaghanda.

      John-GEN son-TOP   he-NOM Mary-NOM   hit-C   think

      'He$_i$ thinks Mary hit John$_i$'s son.'

As for the WCO effects, it is generaaly analyzed that this effect does not appear in topicaliation unlike preposed/scrambling constructions, and even my intuition seems that the topic element does not obey WCO constraints. The following are the results of the analysis claimed by H.Choe (1995) and H.Lee (2008).

(150) Topic sentence

     John$_i$-eun   geu$_i$-ui   eomma-ga   jeongmallo   joahanda.

     John-TOP   he-GEN   mother-NOM   really   like

     'John, his mother really likes.'

   a. H.Choe (1995)'s analysis: No WCO

   b. H. Lee (2008)'s analysis: No WCO

(150) Focus sentence

     John$_i$-eul   geu$_i$-ui   eomma-ga   jeongmallo   joahanda.
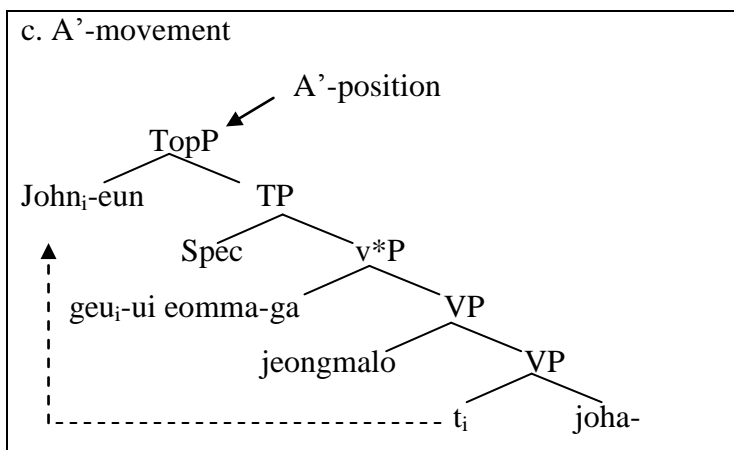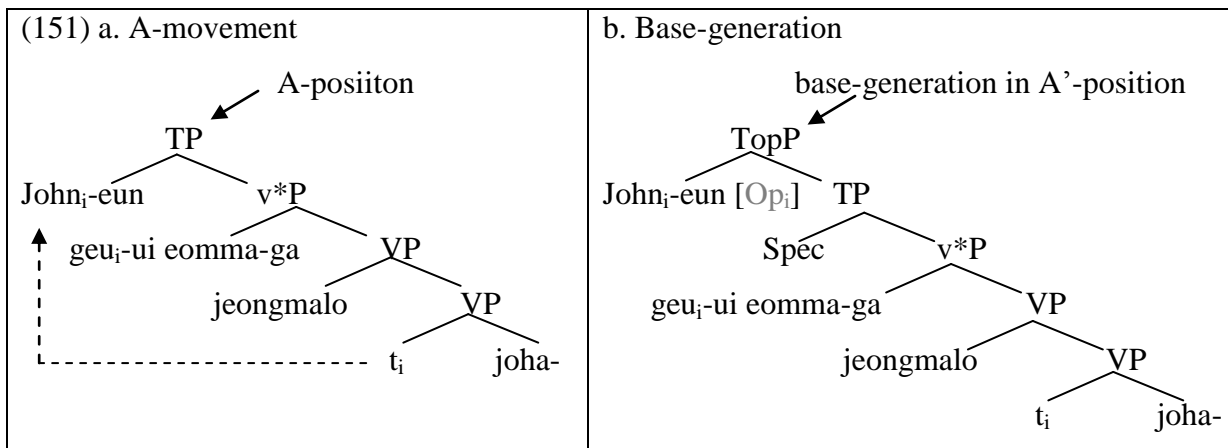
     John-TOP   he-GEN   mother-NOM   really   like

     'JOHN, his mother really likes.'

   a. H.Choe (1995)'s analysis: WCO

   b. H. Lee (2008)'s analysis: No WCO

I will continue to argue that topic elements are the product of Internal Merge (IM/ movement operation). There may be three reasons why WCO effect, which are properties of movement, do not appear; (i) One is that a topic element involves A-movement i.e., Spec-TP, and (ii) other is that an topic element base-generated in TopP with null operator movement adjacent to topic elements (H.Choe 1995; H.Lee 2008). Nontheless, I assume topicalized elements have discourse effects by means of IM according to Chomsky (2001,2001a; Gallego 2010, 2013; Chomsky, Gallego and Ott 2017; Gallego & Chomsky 2019).

(151) a. A-movement

```
                    A-posiiton
        TP
John_i-eun     v*P
  ↑       geu_i-ui eomma-ga     VP
  ¦                  jeongmalo      VP
  ¦                                t_i    joha-
  └-----------------------
```

b. Base-generation

```
                        base-generation in A'-position
            TopP
John_i-eun [Op_i]    TP
             Spec        v*P
      geu_i-ui eomma-ga       VP
                    jeongmalo      VP
                              t_i     joha-
```

c. A'-movement

```
                    A'-position
        TopP
John_i-eun     TP
  ↑      Spec       v*P
  ¦   geu_i-ui eomma-ga       VP
  ¦             jeongmalo      VP
  ¦                           t_i    joha-
  └-----------------------
```

However, I temporarily assume that topic element undergoes an movement and the reason why WCO effects do not appear is due to the fact that topicalized element 'John-eun' involves A-movement not A-bar movement at Spec-FocP (not as PF scrambling in v*P edge). Contrary to this, I suggest that the scrambled element '-John-eul' involves A-bar movement yielding ungrammaticality or ambiguous binding following H.Choe's (1995) analysis.

(152) a. Topic

```
                    A-posiiton
        TP
John_i-eun     v*P
  ↑       geu_i-ui eomma-ga     VP
  ¦                  jeongmalo      VP
  ¦                                t_i    joha-
  └-----------------------
```

b. Focus

```
        TopP              A'-position
Spec        FocP
John_i-eul        TP
            Spec        v*P
      geu_i-ui eomma-ga       VP
                    jeongmalo      VP
  ¦
  └------------------------------
```
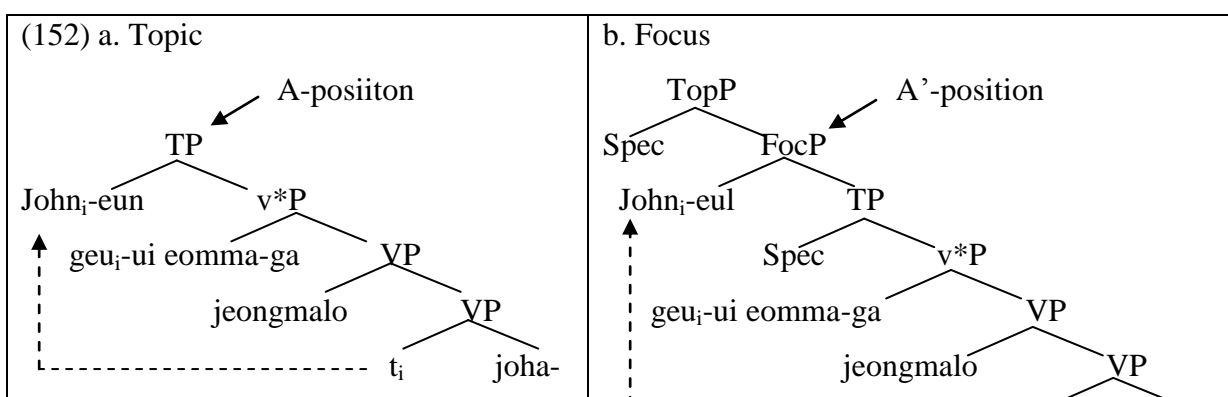
	t_i joha-

I follow the H. Choe's (1995) judgement since the binding of the focused element 'John'eul' is ambiguous for 'geu-ui'. That is to say, it seems to me that the focus elements obey the WCO constratins and thus they undergo a movement.

Based on H. Choe's (1995) and H. Lee's (2008) analysis for the properties of Topic sentences of Korean along with my judgement discussed so far, the summarizes are as follows:

(153) Properties of Topics in Korean

    a. Topic elements are base-generated in the left periphery.

    b. The grounds of base-generation assumption are:

       -Subjacency effects (CNPC, AC)

       -No Subjacency effects with the resumptive pronoun (unlike CLLD Spanish)

       -No WCO and No SCO effects (with the resumptive pronoun)

       -the assumption of operator considering the 'no subjacency effects' and 'constrastive topic'

       -the topic marker '-neun' can not appear with the structural case markers such as '-i/-ga' for nomintavie case and '-(l)eul)' for accusative case.

    c. The '-neun' marked subject in TP involves a null operator movement from VP leaving behind variables and thus forming the relation operator-variables.

    d. The '-neun' marked topic is not produced by the movement of an object from VP, but is base-generated in CP-area and a null operator co-indexed with topic elements moves to adjacent to Topic elements from the complement position of a verb in VP at LF. After moving the null operator, variables are generated in VP and they are optionally phonetically realized as resumptive pronouns. This process (i.e., the movement of the null operator at LF with topic base-generated) gives rise to No Subjacency effects and No SCO/WCO effects.

If we follow the proposal of Gallego (2010) which adopts the idea of Raposo & Uriagereka (1995; 2002) and Li & Tompson (1976), the '*-neun*' marked subjects in 'short topicalization sentences' may be placed in Spec-TP yielding topic-comment constructions, simultaneously, forming the relation of operator-variables. On the other hand, the '*-neun*' marked objects in

'long topicalization sentences' are base-generated in Spec-TopP within CP-domain and the movement of a null operator occurs at LF (Chomsky 1977), and due to this process, a resumptive pronoun can appear in VP blocking the Subjacency effects and the SCO/WCO effects. The former applies to the sentence (154) repeated here and the latter is applicable to the sentence (155):

(154) Totoro-neun   geu dotori-leul   gajyeoganda

　　　Totoro-TOP/CT   the acorn-ACC takes

　　　　'Totoro takes the acorn'/ '(Shrek takes mud, and Olaf takes snow)'

(155) a. [$_{CP}$ [$_{TopP}$ Dotori-neun$_i$ Op$_i$ [$_{v*P}$ May-ga [$_{CP}$ [$_{VP}$ {geugeos-eul$_i$/t_i}   gajyeoga-n

　　　　　　　　acron-TOP   May-NOM   it-ACC   took-COMP

　　　　[$_{NP}$ saram-eul] chaj-goiss-da]]]].

　　　　　person-ACC   is searching

　　　'As for the acorn, May is searching the person who took it.'

　　b. [$_{CP}$ [$_{TopP}$ Dotori-neun$_i$ Op$_i$ [$_{PP}$ [$_{v*P}$ Totoro-ga   {geugeos-eul$_i$/t_i}   gajyeogan hue]

　　　　　　　　acron-TOP   Totoro-NOM   it-ACC   took   after

　　　　uleossda]]].

　　　　cried.

　　　'As for the acorn, May cried after Totoro took (it).'

　　c. [$_{CP}$ [$_{TopP}$ Dotori-neun$_i$ Op$_i$ [$_{CP-wh}$ Totoro-ga   {geugeos-eul$_i$/t_i}   gajyeogass-neunji]

　　　　acron-TOP   May-NOM   Totoro-ga   it-ACC   took −Q (whether)

　　　　muleossda]]]

　　　　asked.

　　　'As for the acorn, May asked that Totoro took (it).'

To summarize, both languages employ the movement operation, giving rise to a discourse-related interpretation (the relevant discussions in Gallego 2010, 2018; Rizzi 2006, 2007 ; Uriagereka 2008). Only the differences are that Spanish contains a verb movement in both Topic and Focus sentences as well as movement of topic and focus elements, whereas Korean employs the movement of null operator with topic base-generation for topic sentences, on the other hands, the base-generated focus in Spec-vP in the case of focus-in-situ and when the focus moves at LF, variables are generated.

As a consequence, Korean contains base-generated topic with null operator movement base-generated focus with focus movement landing at A-bar position at LF. Spanish employs Topic and Focus movement with the verbs movement. Thus, the operator movement at covert and overt syntax gives rise to the discourse-orientes interpretations.

(156) Subject topics in TP in Korean

    a. [$_{CP}$ [$_{TP}$ Totoro -neun$_i$ Op$_i$ [$_{v*P}$ t$_i$]] → null Operator LF-movement

    b. [$_{CP}$ [$_{FocP}$ Totoro-ga$_i$ [$_{TP}$ [$_{v*P}$ Totoro-ga$_i$]] → Focus LF-movement

(157) Subject topics in TP in Spanish

    a. [$_{CP}$ [$_{TP}$ Juan$_i$ T   escribe$_j$ [$_{v*P}$ t$_i$ t$_j$]] → Preverbal subject with overt movement

    b. [$_{CP}$ [$_{TP}$ T   escribe$_i$ [$_{v*P}$ Juan   t$_i$]] → Postverbal subject with (verb) overt

                                                                movement

(158) Parameters for discourse-oriented interpretations in both *pro*-drop languages:

    a. In Korean, a null operator movement and a focus movement at LF yield disourse-oriented interpretations.

    b. In Spanish, the topic and focus movements at overt syntax yield discourse-oriented interpretations.

In the case of [XP-neun XP-ga] construction in Korean such as in (159b), it should be assumed that both the 'XP-neun' and the 'XP-ga' move to the Spec-TopP and Spec-Foc within the CP-domain following cartography of Rizzi (1997 et seq.), rather than being analyzed as being located in the Spec-TP and Spec-v*P. Let us consider the following example:

(159) b. [kokkili-neun]$_i$ ko-ga {0}$_i$ gilda.

      elephant-TOP   nowe-NOM   is long

      'As for elephants, noses are long.'

Note that first, this sentence involves an inaccusative construction due to the copula verb '-(i)da' in 'gilda' (Eng. is long). The argument construction of the verb is not mapped onto the v*P since the argument construction of the inaccusative verb does not hold agent, which is

originally base-generated in Spec-VP. This construction can be compared with the inaccusative verb 'morir' (Eng. die) in Spanish. If the structure of vP, to which an inaccusative verb mapped, is assumed in our analysis, it would be as in (161). Furthermore, I prefer the structure that verbs in Korean are generated on the righ side of the subject (EA) 'kokkili-ui ko-ga' (Eng. noses of elephants-NOM) unless the subject undergoes the right-dislocation operation, since Korean does not generally allow postverbal subject.

<Inaccusative argument construction>	
(160) a. Spanish	b. Korean
TP Juan VP ⊗ V' murió Juan (Topic) Juan murió (Focus) Murió Juan	TP kokkili-ui ko-ga VP ⊗ V' Poss gilda kokkili-ui ko-ga
(161) a. Spanish	b. Korean
TP Juan vP ⊗ VP murió Juan	TP kokkili-ui ko-ga vP ⊗ VP Poss gilda kokkili-ui ko-ga

In order to avoid some complexity of the discussion, I will only assume the VP projection here. Since (159) can have three types of readings as in (163); Topic, Contrastive Topic, Constrastive Focus, I put forward the following structures, capitalizing on H.Choe's (1995) idea:

(162) a. Topic reading	b. Contrastive Topic reading	c. Contrastive Focus reading
TopP k*i*-neun TP 　[[*t*i] ko-ga]*j*　　VP 　⊗　　　　　V' 　　　　　t*j*　gilda	TopP k*i*-neun-[Op*i*] TP 　[[*t*i] ko-ga]*j*　　VP 　⊗　　　　　V' 　　　　　t*j* gilda	TopP 　　FocP k*i*-neun-[Op*i*] TP 　[[*t*i] ko-ga]*j*　　VP 　⊗　　　　　V' 　　　　　t*j* gilda

(163)　kokkili-neun　　　　　ko-ga　　　　gilda.

elephant-TOP/CF/CT　nose-NOM　is long

(i)'As for elephants, noses are long.' (TOP)

(ii) 'Noses of elephants are long (in general), but other types of animal no.' (CF)

(iii) 'As for giraffes, necks are long, and as for flamingos, legs are long' (CT)

Form this sentence, if the subject 'kokkili' (Eng. elephant) undergoes 'Possessor-Raising' to the focus position, a multiple nominative case construction will be produced, as we have seen in the section 5.2.1

(164) a.kokkili-ga　　　ko-ga　　　　gilda. 　　elephant-FOC　nose-NOM　is long 　　(iv) KOKKILI-GA ko-ga　gilda.	b.　　　　　　Foc 　　k*i*-ga　　　　TP 　[[*t*i] ko-ga]*j*　　　VP 　　　⊗　　　　　　V' 　　　　　　　t*j*　gilda

The difference between 'general topic/focus readings' and 'contrastive topic/focus readings' is whether an operator moves or not at LF. Moreoover, the differences between 'CT reading' (163c) and 'CF reading' as in (163b) is that the 'CT reading' as in in TopP after 'Pssessor-Raising' involves the hidden movement of 'null operator' from the canonical position in VP, whreas the focused element 'kokkili' plays a role as an operator itself when it moves to FocP from VP and thus it binds the leaving variables after its movement. The difference between

the 'CF reading' in (163c) and the ''Focus reaing' in (164) is that the former involves the whole movement (t_i, t_j) and (Op_i, t_i) but the latter involves the movement chain (k_i, t_i).

In the case of Spanish subjects in TP, the subject may be in the TP or may have further moved to TopP taking a cartographic approach. I predict two casese based on perspective of verb movement in Spanish: One is that when a verb unergeos further movement from T to C, the subject in TP raises to TopP by means of the verb movement effect. The other is that when a verb moves from T to C, the subject in TP remains in Spec-TP but has a same effect as the subject in TopP due to the verb movement.

(165) a. Spanish[113]   b.
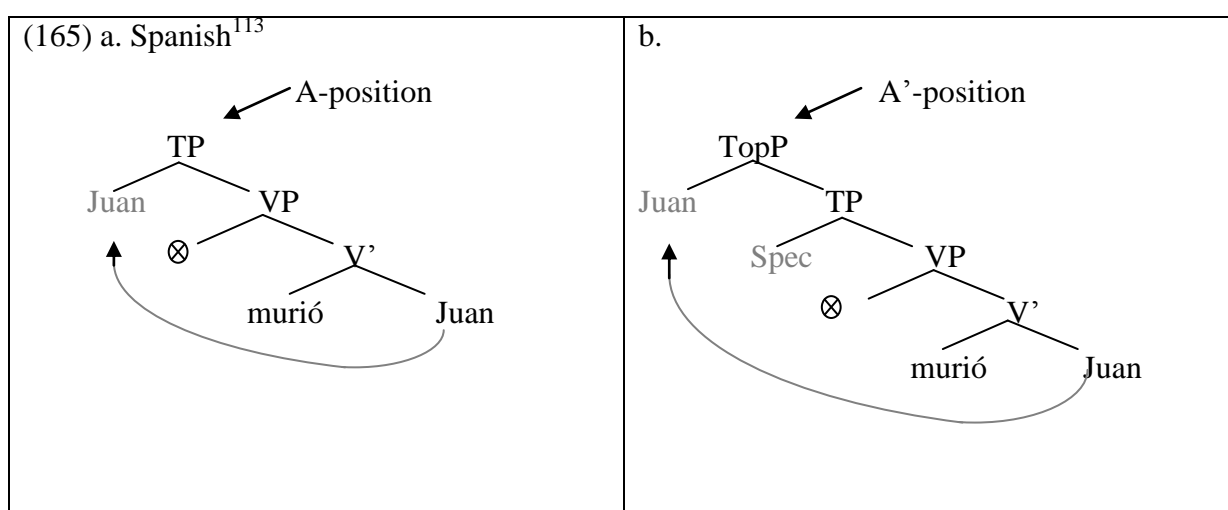
The latter is the same line with the Gallego (2010), in which accounts for the hybrid A and A-bar nature of Spec-TP in NSLs.

(166) A-bar properties of Spec-T are a side-effect of internal Merge (i.e., verb movement)

[from Gallego 2010:210]

In his analysis, various examples of Spanish are suggested that the verb movement affects the left peripheral elements. This fact can be observed in the examples we have already seen ealier. For convenience, one of the exmpales adduced ealier is re-mentioned here:

(167) a. Luis   dice   que **CERVEZA** ha   bebido (y no sidra).   (Spanish)

---

[113] However, in our proposal, it will be assumed that null pro is in Spec-TP and the preverbal subjects move to FinP.

Luis   say-3.SG that   BEER   have-3.SG   drunk (and not cider)

‘Luis says that BEER he has drunk.’

b. *Luis quiere   CERVEZA **beber** (y no sidra).

Luis   want-3.SG   BEER   drink-INF (and not cider)

‘Luis wants BEER to drink (and not cider)

[from Gallego 2010: 146-147]

At first glance, the similar phenomenon is found in Korean:

(168) a. [**Gaeul-i   o**-neun   sori-ga]$_{NP}$ deuli-n-da (non-finite)   (Korean)

Autum-NOM come$_{INF}$-C sound-NOM   hear-PRS-D.

‘The sound of autum coming can be heard’

b. *[**Gaeul-eun   o-**neun   sori-ga]$_{NP}$ deuli-n-da (non-finite)

Autum-TOP come$_{INF}$-C sound-NOM   hear-PRS-D.

‘The sound of autum coming can be heard’

[from H.Choe 1995:309]

However, unlike Spanish, even if the verb is tensed, there is no change in the above example. In other words, when the verb is tensed, which means that the verb undergoes the movement, the left peripheral elements should be allowed but it does not.

(169) a. [**Gaeul-i   o-wass-da**-neun   sori-ga]$_{NP}$ deuli-n-da (finite)   (Korean)

Autum-NOM come-PST-D-C sound-NOM   hear-PRS-D.

‘The sound of autum that has come can be heard’

b. *[**Gaeul-eun   o-wass-da-**neun   sori-ga]$_{NP}$ deuli-n-da (finite)

Autum-TOP come-PST-D-C sound-NOM   hear-PRS-D.

‘The sound of autum that has come can be heard’

Let us consider also the following examples:

(170) a. [$_{NP}$ [$_{CP}$ Geu-{ga/*neun} o-n-da]-neun sosik-eul]] ally-eoss-da   (Korean)

he-NOM/*TOP come-PRS-C news-ACC inform-PST-D

‘(He) left (them) know the news that he comes.’

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b. [_CP_ Cheolsu-ga [_CP_ geu-{ga/*neun} iki-n-da] -myeon] johaha-lgeos-ida.

   Cheolsu-NOM he-NOM/*TOP win-PRS-D-if happy-will-be.

  'If he wins, Cheolsu will be happy.'

As seen in (171), even if the verb is tensed, the topicalization marked by '-neun' is banned. Therefore, our proposal inchapter 3 that the verb movement in Korean may not involves is well compatible with this fact.

 Contrary to the adduced data, however, topicalized element by '-neun' is permitted when the co-indexed pronouns appears.

(172) a. [_NP_ [_CP_ Geu$_i$-neun [**geu$_i$-ga** o-n-da]-neun sosik-eul]]] ally-eoss-da   (Korean)

    he-TOP he-NOM come-PRS-C news-ACC inform-PST-D

  'He left (them) know the news that he comes.'

 b. . [_CP_ Cheolsu-ga [_CP_ geu$_i$-neun **geu$_i$-ga** iki-n-da] -myeon] johaha-lgeos-ida.

   Cheolsu-NOM he-TOP he-NOM win-PRS-D-if happy-will-be.

  'If he wins, Cheolsu will be happy.'

In Korean, it can be concluded that the left periphery can be attributable to the effects of null operator movement following our analysis (H.Choe 1995, H.Lee 2008) rather than the sub-effect of the verb movement.

(173) A-bar properties of Spec-T are a side-effect of internal Merge of null operator in Korean.

Thus, in our analysis, the null operator is assumed.

 The following table summarized what we have been discussed so far.

(174)

Scrambling/Focalization in Korean				'*-neun'* marked Topicalization in Korean			
Base-generation		Movement	√ (?)	Base-generation	√ (?)	Movement	√(?)
Test1.	Strong Island Effect		Sensitive	Test1.	Strong Island Effect		Sensitive

	Weak Island Effect	Insensitive		Weak Island Effect	x
Test2.	Strong Cross-Over effect	√	Test2.	Strong Cross-Over effect	√
	Weak Cross-Over effect	x		Weak Cross-Over effect	√ (weakly)
Test3.	Resumptive pronoun	x/optional	Test3.	Rerumptive pronoun	optional/ obligator y

5.3.3.3. Ambiguous A/A' effects in preverbal subjects and scrambling

As I mentioned in the previous section, it could be assumed that preverbal subjects in accusative constructions of Spanish, can move to Spec-TP or to Spec-TopP. In this regard, non-trivial proposals have been suggested that the position of Spec-TP in *Null Subject Languages* (NSLs) has both A and A-bar properties.

In general, the distinction between A and A'-movement is divided into the targeted projection position in syntax where a phrase is moved. According to Chomsky (2001), the A'-position (i.e. phase edge within *Phase Theory*'s term) gives rise to semantic effects (see Gallego 2010: chapter 2 for relevant discussions):

(175) $[_{CP}$ SPEC C $[_{TP}$ SPEC T $[_{v*P}$ SPEC $v*$ $[_{VP}$ SPEC V …]]]]

     A'   A   A'   A

The Spec-C and the Spec-$v*$ are defined as the discourse-oriented positions as shown in (175). As noted ealier, the Spec-TP position is controversy in NSLs since there are claims that the Spec-T position in NSLs has both A and A'-properties (see Gallego 2004; 2005; 2010 for Spanish). In the literature, there was discussion about whether or not subject preverbal in Spanish should be treated as 'topic' or 'neutral'/ 'lexical' subjects. As depiceted in (176), it has been widely accepted that subjects raising is forced to move to Spec-TP in passivization and the 'seem' verb type-construction (i.e., ECM) yielding A-chain:

(176) A-movement: preverbal subjects in English

   a. [John and Mary]$_1$ seemed to each other$_1$ to be t$_1$ kind   anaphor bidning   (English)

   b. Everyone$_1$ seemed to his mother to be t$_1$ smart.   WCO violation

c. [John's₁ father]₂ seems to him₁ to t₂ be kind.   Condition C violation

[from Ko 2017:3]

(177) A-movement: preverbal subjects in Spanish

    a. [$_{CP}$ C [$_{TP}$ Juan y María₁   T   se₁ perecían   [sc t₁ amables [$_{DP}$ t₁ (se)]]]]   (Spanish)

    b. [$_{CP}$ C [$_{TP}$ Todos₁   T le₁ parecían   [sc t₁ intelligentes [$_{DP}$ a su₁ madre t₁ (le)]]]].

    c. [$_{CP}$ C [$_{TP}$ El padre de Juan₁]₂   T   le₁ parece   [sc t₂ amable [$_{DP}$ t₁ (le)]]]]

Theoratically, the movement of subjects to Spec-TP is forced to undergo the raising in order to be licensed φ-feature checking and assigned the nominative case from the infinitive clause (i.e., ECM contstruction) that does not have capability of a nominative case assignment. The preposed subjects in this way exhibit some effects that violates the existing binding constratins at the position of Spec-TP. I capitalize on the well summarized version of Ko (2017) in order to better understand these effects at once. As for the terminology of 'anaphor binding', the anaphor 'each other' in English and 'se' in Spanish can be bind or licensed by the movement of subjects. In addition to this, the preposed universal quantifiers such as 'Everyone' in English and 'Todos' in Spanish do not obey WCO constraints. Finally, the R-expression of the moved phrase 'John' and 'Juan' should be reconstructed to its canonical position, and thus the R-expressions are ruled out by Condition C since it is bounded by the pronoun. It is generally accepted that reconstruction effects is considered A-bar effects. However, it can be interpreted that A-bar effect appear at the A-moved position since 'John' undergoes the movement in ECM construction, as pointed out by Ko (2017). As a consequence, the movement of subjects from ECM to the (generalized) A-position (i.e., Spec-TP) can be called having A-effects because the mentioned effects (i.e., anaphor binding, WCO effect wiolation, Condition C violation) display at the A-position.

    Additionally, in order to prove the fact that Spec-TP has A-properties in Spanish, some data are presented in Gallego (2010) that preverbal subjects can bind and control the co-indexed control PRO and the anaphor 'si mismo':

(178) A-movement: Spanish

    a. Juan₁ quiere [$_{CP}$ [$_{TP}$ PRO₁   salir   con María]]

       Juan want-3.sg   gout-out-INF   with María

       'Juan wants to go out with María'

    b. [$_{CP}$ C [$_{TP}$ Juan₁ T se₁ afeita [$_{v*P}$ t_{juan} v* [$_{DP}$ a sí mismo₁ t₁]}]]

Juan   SE(himself) shave-3.sg   to SELE same

'Juan shaves himslef'

Another ground for the claim that the preberbal subjects has A-properties in Spec-TP is that preverbal subjects are not clitic dislocated topics as in (179a) whereas DOs/Ios are clitic dislocated when they are in left-dislocated position as topics as in (179b-c).

(179) a. Juan$_i$, le dio t$_i$ las llaves a Pedro   (Spanish)

     Juan cl-him gave-3.sg the keys to Perdo

     'Juan, he gave the keys to Pedro.'

  b. Las llaves$_i$, se las$_i$ dio Juan a Pedro t$_i$

     the keys   SE-to him cl-them gave-3.sg Juan to Perdo

     'The keys, Juan gave to Perdo.'

  c. A Perdo$_i$, le$_i$ dio   Juan   t$_i$ las llaves

     to Perdo   cl-him gave-3.sg Juan the keys

     'To Pedro, Juan gave the keys.'

Paradoxically, however, the data (179) can be the ground for the preverbal subjects having A-bar properties in Spec-TP. The position of spec-TP, for this reason, can be conceived as being both A and A-bar properties, as argued by Gallego (2010):

(180) a.   A'-properties/ A-properties

        TP

               T'

    Juan$_i$ v*P

    Las llaves$_i$

    A Perdo$_i$ t$_i$
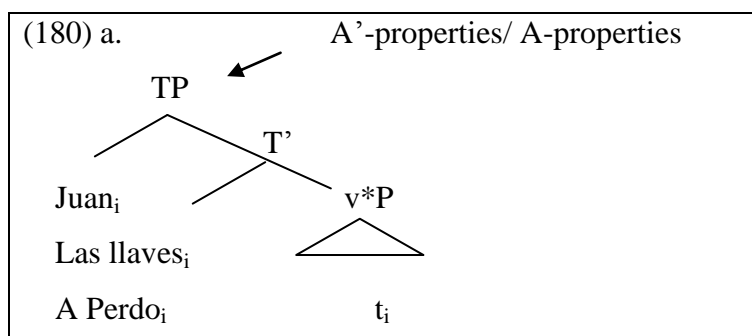
Another example of subjects preverbal showing the A'-properties is that they can form a Topic-Comment construction (Rizzi 2006, Cardinaletti 2004). That is to say, preverbal subjects are interpreted as topics bearing 'abountness'. If Cartographic approach is no

postulated, under the simple TP-v*P structure, it is possible to assume that the Spec-TP is capable of forming A'-chain (Raposo & Uriagereka 1995; 2002, Gallego 2010). This assertion stems from the analysis that preverbal subjects can be interpreted as categoric (Topic-Comment interpretations), whereas post-verbal subjects are interpreted as thetic (Focus-Presupposition interpretations):

(181) a. [$_{CP}$ C [$_{TP}$ María$_i$ T [$_{v*P}$ t$_i$ v* baila]]]   → Categoric interpretations   (Spanish)
        María   dance-3.sg
    'María dances' (=María is a dancer)
    b. [$_{CP}$ C [$_{TP}$ T Baila$_i$ [$_{v*P}$ María v*]]]   → Thetic interpretaions
               dance-3.sg María
    'María dances' (=It is María who dances)

[from Gallego 2010:211]

Another ground for supporting the hypothes is that Spanish shows VP ellipsis phenomena. Let us consider the following examples:

(182) a. Él le dio unos libros a Pía y <u>Pepe</u> tambièn [le dio unos libros a Pía].   (Spanish)
    He cl-to her some books to Pía and Pepe too [cl gave some books to Pía]
    'He gave some books to Pía and Pepe too [gave some books to Pía].'
    b. Unos libros le dio Juan a Pía y <u>unos cuadros</u> también [le dio Juan a Pía].
    Some books cl-to her gave Juan to Pía and some painting too [cl gave Juan to Pía]
    'Juan gave some books to Pía and some pictures [Juan gave to Pía].'
    c. A Pía le dio Juan unos libros y <u>a Sara</u> también [le dio Juan unos libros].
    To Pía cl-to her gave Juan some books and to Sara too [cl gave Juan some books]
    'Juan gave some books to Pía and to Sara too [Juan gave some books to her]

[from Ordóñez 1997:168]

As seen in (182b) and (182c), the preposed or topicalized direct and indirect object can be remnant in the preverbal position after vP ellipsis. Therefore, it can be assumed that the preverbal subject 'Pepe' in (182a) is in topic position because it is in the same position as the preposed and topicalized the IO 'a Sara' (Eng. to Sara) / DO 'unos cuadors' (Eng. paintings).

In addition to mentioned facts, subjects in Spanish exhibit the same semantic properties as topicalized elements:

(183) a. P:¿Qué comió Juan?   (Spanish)

      what ate   Juan

      'What did Juan eat?'

  R: <u>Juan</u> comió una naranaja.

     Juan ate   an   orange

     'Juan ate an orange.'

 b. P:¿Quién comió esta naranja?
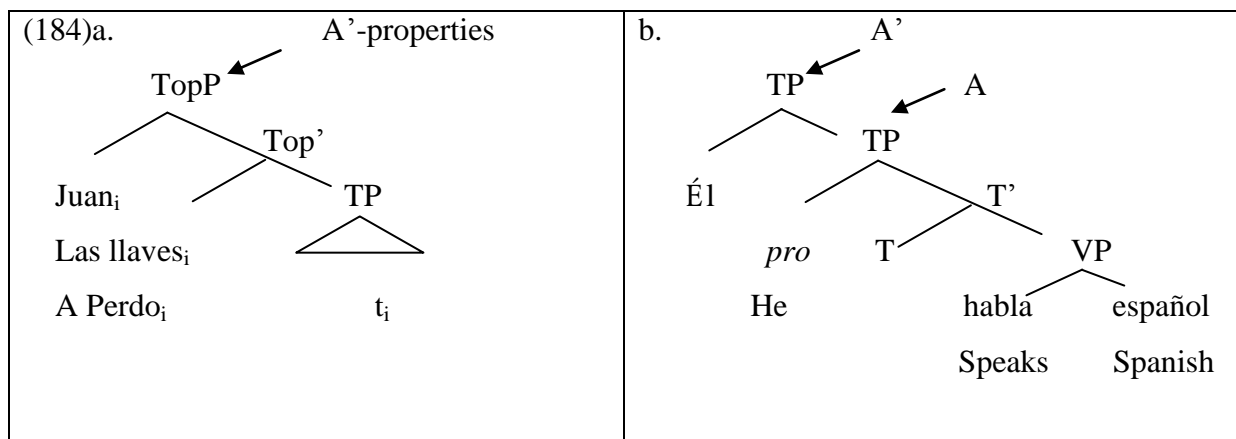
    who   ate   this ornage

    'Who ate this orange?'

  R: <u>Esta naranja</u> la comió Juan.

    this orange   cl.3.sg ate Juan

    'This orange, Juan ate it.'

[from M. Lee 1996: 334]

As we saw in the previous chapter, topic elements as 'old information' should be placed in the sentential initial position, as in (183b). That is to say, the answer to the question cannot be presposed. In this context, the preverbal subject in (183a) can be considered identical to the topicalzied element as in (183b).

In the literature, however, preverbal subjects have been assumed to be located in TopP, or to be in the adjuncted position of TP. In the latter case, the requirement that null pronoun '*pro*' should occupy the position of Spec-TP is required.

(184)a.

$$
\begin{array}{l}
\text{A'-properties} \\[4pt]
\text{TopP} \\
\quad\diagdown \\
\qquad \text{Top'} \\
\text{Juan}_i \diagdown \\
\text{Las llaves}_i \qquad \text{TP} \\
\text{A Perdo}_i \qquad\qquad t_i
\end{array}
$$

b.

$$
\begin{array}{l}
\text{A'} \\
\text{TP} \qquad \text{A} \\
\qquad \text{TP} \\
\text{Él} \quad\diagdown \\
\quad pro \quad \text{T'} \\
\qquad \text{T} \qquad \text{VP} \\
\text{He} \quad habla \quad español \\
\qquad \text{Speaks} \quad \text{Spanish}
\end{array}
$$

Rigau (1987) distinguishes pronouns in subject preberbal position from *pro* in Catalan, pointing out that in French, the pronoun "lui" and the clitic "il" correspond to "Ell" and "pro" in Catalan, respectively.

(185) a. <u>Ell</u> paralarà (= Il parlera lui)   (Catalan)

  He speaks

 b. <u>pro</u> parlarà (= Il parlera)

                     [from Rigau 1987: 398]

As we have studied in chapter 2, Korean and Spanish are languages belonging to NSLs whose subjects are phonologically null. For convenience, I repeat here the relevant data:

(186) a. *pro* bada-ro ga-ni?   (Korean)

    sea-to go-Q

 'Are/Is (*pro*) going to the beach?'

(187) a. *pro* vas   al   mar?   (Spanish)

     go-2.Sg. to-the sea

 'Are *pro* (you) going to the beach?'

Ignoring the subject-verb agreement with respect to person and number (i.e., φ-features), I would like to focus on the fact that both languages gurantee the position of *pro*. In the case of English, it is assumed that the expletive subject such as 'there' generally occupies this position:

(188) [TP There is [VP is a man in the room]   (English)

As argued by Rizzi (1986b:520), the *pro* can considered to be base-generated in Spec-TP as an argumental element as in (6).

(189) *pro* base-generation in Spec-TP   (Spanish)

 a. [TP *pro* (expl) [T compró$_i$ [v*P Juan t$_i$ un Audi]]] (transitive)

 b. [TP *pro* (expl) [T cantaba$_i$ [v*P María t$_i$]]] (intransitive)

c. [TP *pro* (expl) [T llegó$_i$ [v*P t$_i$ el tren]]] (inaccusative)

In Gellgo (2010), however, the possibility of *pro*-movement from DP within v*P to TP is introduced postulating the existence of EPPs. That is to say, under the concept of Phase, a second additional position on the subjects in Spanish is assumed yielding the three types of worder order such as SOV, VSO, VOS. I will not go further into the word order issue. (190) is provided as a piece of evidence for *pro*-movement hypothesis. The adduced sentence (190b) should be grammatical since the R-expression 'María' in the preposed phrase as a topic is in the position of c-commanding *pro*, violating Condition C. If *pro* was base-generated at v*P, it could be explained that the sentence is ungrammatical under the Condition C because the preposed clause is bound by *pro* at the canonical position.

(190) *pro*-movement from DP to Spec-TP as EPP2   (Spanish)

  a. *[CP [Los libros de María$_j$]$_i$ C [TP *pro*$_j$ T los$_i$ ha leído [v*P t$_i$ [v*P t$_{pro}$ v* t$_i$]]]]

      the books of María   cl-them have-3.sg read

   'María's books, she has read them.'

  a. [CP C [TP *pro*$_i$ T Ha llamado [v*P [DP Juan [t$_i$]] v*]]]

               have-3.sg called   Juan

   'Juan has called.'

Regalrdless of whether or not *pro* has undergone a raising, I assume the existence *pro* in Spec-TP in both languages on the basis of NSLs. Therefore, I suggest the following generalization based on what I have provided so far.

(191) Generalization 1

  a. The preverbal subjects in Spanish have both A and A-bar properties.

  b. The null *pro* is in Spec-TP in both Korean and Spanish based on the fact that they are NSLs

In fact, in Korean, the fact that the preverbal subjects have both A and A-bar properties is '-readily captured by the marked particles in subjects such as the '*-i/ga*' (nominatve case marker) and the '*-neun*' (topic/focus/contrastive marker):

(192) a. Totoro-ga   dongmul-ida.   (Korean)

      Totoro-NOM   animal-is

      'Totoro is animal.'

   b. Totoro-neun   dongmul-ida.

      Totoro-NOM/TOP/CT/CF   animal-is

      (i) 'Totoro is animal.

      (ii) 'As for Totoro (To introduce Totoro), he is animal.' (Topic-comment reading)

      (iii) 'Totoro is an animal, Shrek is a monster, and Olaf is a snowman.' (CT reading)

      (iv) 'Totoro is animal, (but others no).' (CF reading)

In this section, I would like to present the cases that scrambled phrases also have both A and A-bar properties[114], besides subjects in Korean. In the previous section, we have found that scrambling exhibits the property of movement with certain constraints such as WCO, strong island effects etc. In other words, scrambling movement is subject to specific constraints, not randomly as argued by Ko (2017). As summarized in Ko (2017), the preposed elements to the A-bar position (i.e., Spec-CP) do not license their anaphor in that position, obey the WCO constraints and violate Considiton C.

(193) A'-movement in English

   a. *Who$_1$ did [each other's1 friends] speak ill of t$_1$?   *ananphor binding*

   b. ?*Who$_1$ does [his$_1$ mother] love t$_1$?   *WCO effects*

   c. *[John's$_1$ brother]$_2$, he$_1$ criticized t$_2$.   *Condition C*

                                [from Ko 2017:3 (2), (3)]

(194) A'-movement in Spanish

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[114] Starting from Saito (1985) and Hoji's (1985) suggestions, interesting analyzes are introduced from a different point of view to figure out the nature of scrambling. Specifically, the issue as to whether it is a movement with an A-property, A'-property or possibly another have been discussed in depth. The more discussions of A/A-bar/non-A/non-A-bar movments for scrambling of another types of languages are dealt with in Mahajan (1989) and Webelbuth (1989).

a. *[$_{CP}$ De quienes$_1$ C   hablaron mal [$_{TP}$ los amigos del otro$_1$ t$_1$]]?   (Spanish)

b. *[$_{CP}$ A quién$_1$ C   ama$_j$ [$_{TP}$ su$_1$ madre   T   t$_j$ [$_{v*P}$ t$_1$ t$_j$]]] ?

c. *[$_{CP}$ El hermano de Juan$_1$]$_2$ C   [$_{TP}$ T   lo$_1$ criticó $_j$ [$_{v*P}$ t$_j$ t$_2$]]].

In general, scrambling exhibits a typical A-bar chain. In other words, the scrambled elements must be reconstruct to its canonical position yielding Condition C violation. In the case of (195a), the anaphor 'jaki' (Eng. self) can be co-indexed/ licensed by 'geu' (Eng. he) after scrambling yielding reconstruction effects at LF, which is the typical A-bar property. In (195b), the scrambled element 'Minho' also should be reconstructed to its original position after A'-movement. If 'Minho' was assumed to be base-generated at the initial position, this sentence should be grammatical since the R-expression 'Minho' is not bound by 'geu' (Eng. he), as we have discussed ealier.

(195) A'-effects in short-scrambling contructions

a. [jaki$_1$-ui   adeul-eul]$_2$ geu$_1$-ga   *t$_2$*   ttaely-eoss-da   (Korean)

     self-GEN   acorn-ACC   he-NOM   -PST-D.

    'He$_1$ hit self's$_1$ son.'

                      [from Cho 1994b:257; cf. Mahajan 1990, Saito 1992]

b. *[Minho$_1$-ui   eomma-leul]$_2$ geu$_1$-ga   *t$_2$*   johaha-n-da.

     Minho-GEN   mother-ACC   he-NOM   like-PRS-D.

    'He$_1$ likes Minho$_1$'s mother.'

                    [from Y.Lee 1994:523(45); cf. Mahajan 1990, Saito 1992]

Likewise, long-distance scrambling form A-bar chain, in which the preposed phrases are interpreted in their canonical position yielding anaphor binding and Condition C:

(196) A'-effects in long-scrambling constructions

a. [jaki$_1$-ui adeul-eul]$_2$ geu$_1$-ga   [seonsaengnim-i t$_2$ ttaelyeossda-go] saenggaghanda.

   self-GEN   son-ACC   he-NOM   teacher-NOM   hit-C think

   'He$_1$ thinks that the teacher hit self's$_1$ son.'   (Korean)

   (Cho 1994b: 258; cf. Mahajan 1990, Saito 1992)

b. *[John-ui$_1$ adeul-eul]$_2$ geu-ga$_1$ [Mary-ga   t$_2$ ttaelyoessda-go]   saenggaghanda

John-GEN son-ACC he-NOM   Mary-NOM   hit-C   think

'He thinks that Mary hit John's son.' (Cho 1994a: 88; cf. Y. Choi 2004a: 190-191)

Nevertheless, what I want to point out here is that there are cases that scrambling also displays A-pattern. (197a-b) exhibits that scrambled phrases can bind the anaphor 'seoro' (Eng. each other) and the pronoun 'geu' (Eng. he) in the initial position, as in ECM phrases in English and Spanish. In (197c), 'Minsu' is bound by the scrambled 'geu' (Engl he) and thus, the sentence is ungrammatical by Condition C.

(197) A-effects in short scrambling constructions

    a. geudeul-eul$_1$ [seoro-ui$_1$ chingu-ga]   t$_1$ gosohaessda.   *anaphor binding*

    they-ACC   each-GEN friend-NOM   sued

    'Each other$_1$'s friends sued them$_1$.'

    b. nugu-leul$_1$ [geu-ui$_1$ abeoji-ga]   t$_1$ silheoha-ni?   *WCO violation*

    who-ACC   he-GEN   father-NOM   dislike-Q

    'Whoi   did hisi father dislike t1?'

    c. *geu-leul$_1$ [Minsu-ui$_1$ bumonim-i]   t$_1$ bangmunhaessda   *Condition C*

    he-ACC   M.-GEN   parents-NOM   visited

    'Minsu's parents visited him.'

(198a) the scrambled phrase is undone at LF, its position is reanalyzed as an A-chain. According to Ko's (2017) account, it is analyzed that clause-external scrambling may creates a new binder in the surface position, unlike typical A-bar chain. as in (198a). (198b) is explained on the same principles as (197c).

(198) A-effects in long scrambling constructions

    a. geudeul-eul   [seoro-ui chingu-ga]   John-i   t$_1$ gosohaessda-go]   malhaessda. (ko)

    they-ACC   each-GEN friend-NOM   John-NOM   sued-C   said

    'Each other's$_1$ friends said that John sued them$_1$.'

    b. *geu-leul$_1$ [John-ui$_1$ eomma-ga] [Mary-ga   t$_1$ taaelyoessda-go]   saenggaghanda,

    he-ACC   John-GEN   mother-ACC Mary-NOM   hit-C   think

    'John's1 mother thinks that Mary hit him1'

As a consequence, I suggest the following the second generatlization based on what we have discussed so far:

(198) Generalization 2:

    a. The subjects in Korean have both A and A-bar properties and thus, they are marked by the case marker '-i/-ga' and topic marker '-nuen' yielding 'Topic/CT/CF' readings.

    b. Scrambling in Korean also displays both A and A-bar effects.

All the taken together, our discussion of whether Scrambling in Korean and preverbal subjects in Spanish/ Korean exhibit A or A-bar properties yields the following results:

(199) Results

    a. The preverbal subjects in both languages have both A and A-bar properties.

    b. null *pro* is postulated in Spec-TP in both languages.

    c. Scrambling in Korean have both A and A-bar properties.

Considering these results as well as scrambling/ preverbal subjects displaying 'contrastive interpretation', I will suggest in our proposals that preverbal subjects in both languages and scrambling occupy the Spec-FinP with hybrid both A/A-bar nature.

    The proposed generatlizations will be used as the the basic premise for our proposals in the upcoming proposal section. Before going into our proposal, empirical evidence will be provided in which the proposal that the left periphery is activated by heads of verbs movement also may can be applied to Korean.

5.3.3.4. Head movement and Left periphery

This section is devoted to discussing a correlation between head movement and Left Periphery. As we have seen in section 5.3.2., in Spanish there was an asymmetry in allowing topicalization and focalization, depending on whether the verbs are finite or non-finite. The adduced empirical examples support the argument that verb movement/raising due to the rich (tense) inflection activates the left fronting in Spanish. Gallego (2010) gives an analysis that

the space on the left periphery is newly generated by morphologically fuesd/inflected in T comparing to Catalan. As illustrated in (200), the tense morphemes in Catalan are more distributed, while Spanish exploits more fused tense morphemes.

(201) a. Yo canté   (Spanish)

     I   sing-PST-1.sg

  b. Jo   vaig   cantar   (Catalan)

     I   AUX-1-sg   sing-INF

<div align="right">[adapted from Gallego 2010: 152(19)]</div>

As can be seen in (201b), in Catalan, the past tense is employed in the connected form of the present tense form of the verb *anar* (Eng. go) and relevant infinitive *cantar* (Eng. sing). This is clearly found as the contrast between whether the verb inversion in the conditional inversion sentences can create a peripheral space between Spanish and Catalan.

(202) a. Tuviera   Juan   más dinero y se compraba un coche   (Spanish)

     have-SUBJ-PST-3-sg   Juan more money and SE buy-PST-3-sg a car

     'If Juan had more money he would buy a car'

  b. *Tingués   en Joan més   diners i es comprava un cotxe   (Catalan)

     have-SUBJ-PST-3-sg the Joan more money and SE buy-PST-3-sg a car

     'If Joan had more money he would buy a car'

<div align="right">[from Gallego 2010:151-152(17)]</div>

This asymmetry can lead to a discussion of whether focalization is possible or not.

(203) a. Si **algo** vieron *t*, no lo dirán   (Spanish)

     if something see-PST-3-pl   not Cl-it say-FUT-3.pl

     'If they saw something, they will not tell'

  b. *Si **alguna cosa** van veure *t*, no ho diràn   (pas)   (Catalan)

     if something Aux-3-sg see-INF not Cl-it say-FUT-3.pl NEG

     'If they saw something, they will not tell'

<div align="right">[from Gallego 2010: 148-149(9k),(19k)]</div>

The bold letters in (203a) and (203b), repectively, are fronted yielding focus effect, however, Catalan does not allow this construction as the focalization. Based on the empirical evidence, the following generalization is suggested:

(204) A Morphological Microparameter

    a. Edge (i.e., left-peripheral) fronting is parasitic on verb movement.

    b. Verb movement is parasitic on morphological richness of the C-T$_S$-v* spine.

<div align="right">[from Gallego 2010:152(18)]</div>

(205) a. [$_{TP}$ Ayer   estaba [$_{vP}$ Juan leyendo un libro]]   (Spanish)

        yesterday was   Juan reading a book

    b. *[$_{TP}$ Ayer estaba [$_{vP}$ un libro [$_{vP}$ Juan leyendo un libro]]]

<div align="right">[from Chomsky, Gallego & Ott 2017: 26(27)]</div>

    Capitalzing on the analyzed data and suggested idea in Gallego (2010), I would like to firstly present the facts that the left periphery in a sentence of Korean is not active as Spanish due to the no verb movement, as I have assumed in Chapter 3, but Neg-raising (to the right side) may generate spaces for topic/ focus that is realized as a morpheme '*-neun*' in the verb part (i.e. force-finite part) which derives on the rightward according to our analysis in Chapter 3. As in Japanese (see Kishimoto 2017:115 for Japanese), in Korean the raising construction is formed on the aspectual verb *–ida* 'be' (*-iru* in Japanese).

(206) a. Mary-ga   chaeg-eul ilg-go iss-da.   (Korean)

     Mary-NOM book-ACC read-GER   be-PRS

     'Mary is reading books.'

   b. Yeojeonhi Mary-ga   chaeg-eul **ani** ilg-go   iss-da.

     Still   Mary-NOM book-ACC   NEG-read-GER   be-PRS

     'Still, Mary is not reading the book.'

   c.. Yeojeonhi Mary-ga   chaeg-eul ilgji-**ani**-hago   iss-da.

     Still   Mary-NOM   book-ACC   read-NEG-GER   be-PRS

     'Still, Mary has not been reading the book.'

   d. Yeojeonhi Mary-ga   chaeg-eul ilg-go iss-ji **ani**-handa.

     Still,   Mary-NOM book-ACC read-GER be-ji NEG-do

'Still, Mary is not reading the book.

As observed in (206b-d), the aspectual construction, such as (206a), involves Neg-raising. The negator *ani* may can start from the vP-internal position as in (206b), and it may undergo raising to the embedded T-Fin as in (206b), and in turn to the matrix T-Fin as in (206d). Setting detailed positions of Neg aside, I would like to show here how the Neg *ani* has to do with left peripheral morphemes. Let us consider following examples:

(207) a. ??Mary-ga   chaeg-eul   **ani** ilg-go-<u>neun</u>   iss-da.   (cf. 206b)

      Mary-NOM   book-ACC NEG-read-GER-CF   be-PRS

  b. Mary-ga   chaeg-eul   ilgji-<u>neun</u>- **ani**-hago   iss-da.   (cf. 206c)

    Mary-NOM   book-ACC   read-CF NEG-GER   be-PRS

  c. ??Mary-ga   chaeg-eul   ilgji-**ani**-hago-<u>neun</u>   iss-da.   (cf.206c)

     Mary-NOM   book-ACC   read-NEG-GER-CF   be-PRS

  d. Mary-ga   chaeg-eul   ilg-go-<u>(neun)</u> iss-ji<u>(-neun)</u>   **ani**-handa.   (cf. 206d)

    Mary-NOM book-ACC read-GER-CF be-ji-CF   NEG-do

As illustrated in (207a), when the negator *ani* does not undergo rasing, the appearance of the left peripheral morpheme '-*neun*' meaning Contrastive Focus give the unnatural expression. However, in the construction where the negator *ani* has undergone raising, it is observed that a new space has been created for CF morpheme '-*neun*'. As in (206b), if the CF morpheme appeared in the position where Neg has not undergone raising, the sentence also conveys an awkward expression.

   As a consequence, the fact that verb movement in Spanish (due to the morphological richness in T) and Neg head *ani* raising in Korean create the left periphery for Spanish/the semantic morpheme '-neun' for Korean can lead to the conlusion that Head movement/ raising may have to do with the scope-discourse semantics.

(207) The expressions of scope-discourse semtantics are cretated by Head movement.

5.4. Proposals: FinP hybrid A and A-bar properties and covert movement

In the preface of this chapter, we pointed out that in-situ of wh/focus/'*-neun'* topic (which is regarded as contrastive focus, in this case) and scrambling are not directly mapped into Cartography Project. In an effort to solve this problem, in this section, based on the analysis discussed so far, I propose that in-situ of Foc and Top in Korean involves covert movement and their landing site of scrambling and in-situ elements is FinP.

(208) Proposals 1 (for the solutions to the problems with Cartography approach)

    a. in-situ Foc/wh/Top all involve covert movement

    b. Their landing site is FinP.

    c. Scrambling also moves things to FinP.

Also, I suggest that FinP has hybrid A and A-bar properties in Korean, recasting the idea of Gallego (2010) together with adopting the suggestion of López (2009). I also propose that the nature of hybrid A and A-bar drives cross-over effects of in-situ elements, binding effects of scrambling and lack/ambiguous of cross-over effects of Topicalization in Korean, based on our discussions in the previous sections.

(209) Proposals 2

    a. In Korean, FinP has hybrid both A and A-bar properties.

    b. Hybrid A and A-bar properties give rise to cross-over effects of covert movement of in-situ elements, binding effects of Scrambling and lack/ambiguous of cross-over effects of null operator covert movement in Topicalization of Korean

The second proposals would render accounts for the non-standard movement phenomena found in Korean.

    Third, from a comparative linguistic perspective, I also assume that CLLD, FF, and wh-phrases in Spanish and Catalan all may move to FinP, according to López's (2009) arguments, in which CLLD, FF, and wh-phrases are all stacked as specs of Fin. Moreover, I propose that Spec-FinP in Spanish also has both A and A-bar properties rather than Spec-TP (Gallego 2010) by accepting the *pro* hypothesis, which *pro* occupies in Spec-TP in NSLs. Thus, a third proposal is proviede as follows:

(210) Proposal 3

In Korean and Spanish, FinP has hybrid both A and A-bar properties.

The parametric difference between two languages is covert and overt movement, and thus 'covert movement' to FinP is regarded as a parameter in our proposal.

As mentioned ealier, following López's (2009) model where Spec-Fin with [+c], considering that in-situ focus/topic, scrambling, '-neun' marked topics which are in the inital position of a clause have contrastive readings, we have assumed that they are all in Spec-Fin. Thus I provide the followings examples that in-situ focus/topic, scrambling and '-neun/ makred topics all display contrastive readings.

(211) Contrastive (focus/topic) readings   (Korean)

    a. in-situ focus/topic

      Totoro-ga   DOTORI-LEUL/NEUN   gajyeoganda

      Totoro-NOM   acorn-ACC/TOP   takes

      'Totoro takes the acorn (, not others)

    b. Scrambling

      Dotori-leul   Totoro-ga   gajyeoganda

      acorn-ACC   Totoro-NOM   takes

      'Totoro takes the acorn (, not others)

    c. '-neun' object topic

      jageun dotori-neun Totoro-ga gajyoeganda

      small acorn-TOP   Totoro-NOM   takes

      'Totoro takes small acorns (, but as for big ones, May takes it)

    d. '-neun subject topic

      Totoro-neun   dotori-leul   johahanda

      Totor-TOP   acorn-ACC   like

    'Totoro likes acorns (, Sherek likes mud, and Olaf likes snow)

Therefore, all in-situ/ scrambling elements with contrastive readings are considered to be moved to the Spec-FinP to which the [+c] feature is assigned. Again, I would like to focus on how scrambling and in-situ focus/topic, which does not fit well in cargoraphic template, discourse effects hold.

(212)

```
         FinP                                    FinP
        /    \                                  /    \
       /      \___ [+c]                        /      \___ [+c]
CLLD/FF/Wh    Fin'              '-neun' (CF/CT)      Fin'
      ↑       /  \              '-leul' (CF)         /  \
     Fin     TP ── [-c]                      Fin    TP ── [-c]
            /\                                      /\
           /  \                                    /  \
          T  …t…                           …t…'-leul/-neun
          └──────┘                              ↑    │    │
                                                └────┘    ↓   ↓
     [from López 2009:18]                        overt/ covert
```
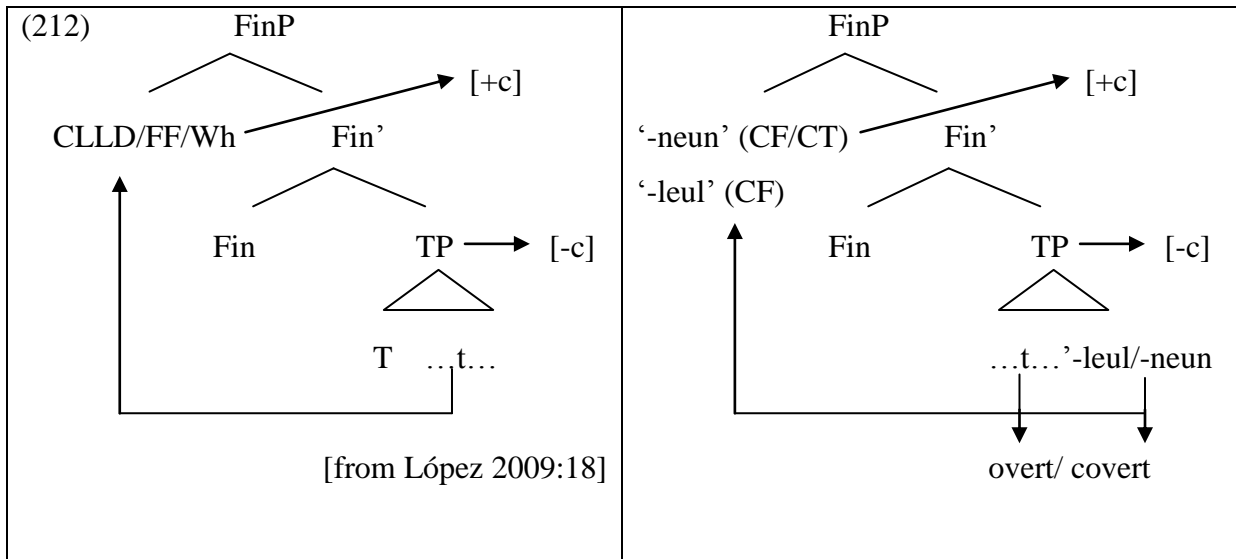
Bearing this model in mind, let us consider how the proposed our mechanisms work. In section 5.3.3.2.2. where was addressed focalization in Korean, I have provided empirical data that in-situ focus has the same intperptretation as the preposed focus, in which involve A-bar chains including variable generated by the focus fronting. For this reason, I regard the in-situ focus as being undergone a covert movement.

(213)

Preposed / Scrambled focus	**In-situ focus**
a. ```\n CP\n / \\\n C TopP\n / \\\n Top FocP\n / \\\n NP_i FinP\n	/ \\\n nugu-leul_i[+foc] NP TP\n	/\\\n May-NEUN_j[+CF]\n t_j t_i mannass\n```	**a.** ```\n CP\n / \\\n C TopP\n / \\\n Top FocP\n / \\\n NP_[+foc] FinP\n ↑ / \\\n NP_[+CF] TP\n /\\\n May-neun_j NUGU-LEUL_i mannass\n``` **\<covert movement\>**
c. nugu-leul_i May-{*neun/NEUN}_j eje t_j t_i mannass-ni? who-ACC May-*TOP/CF yesterday met-Q	
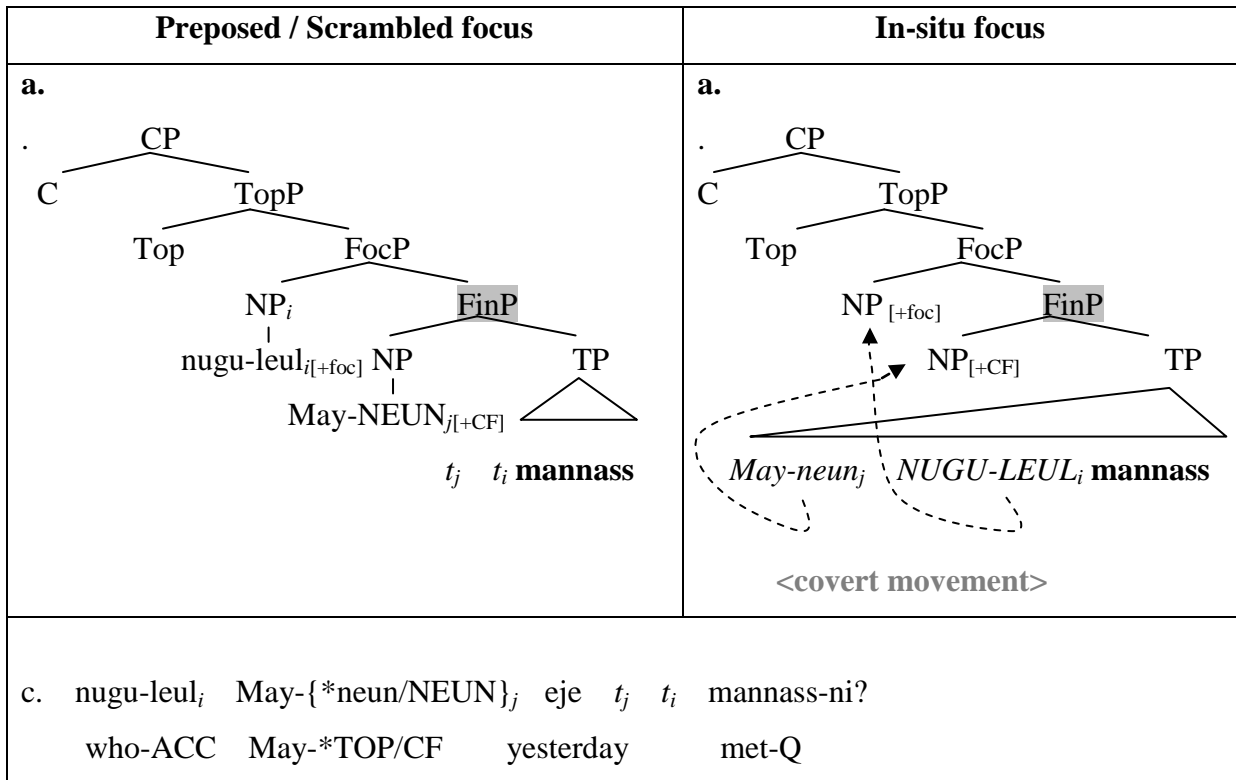
In our analysis, Topic and Focus projections remain, whereas these projections are not assumed in López (2009). I regard that the TopP in Korean and Spanish has to do with D-liked environmenet on the bassis of the fact that in CLLD Spanish does not show WCO effect, as we have seen before. In the case of FocP, it is assumed to be the position for phonological stressed elements and wh-phrases. By leaving the topic and foc projections, multiple foci and topics constructions will be regarded as [foc-fin] and [top-fin].

(214)   ForceP
    Force   TopP (=D-linked)
    CLLD/'-neun'   FocP (focal stress)
                Wh   FinP = comment
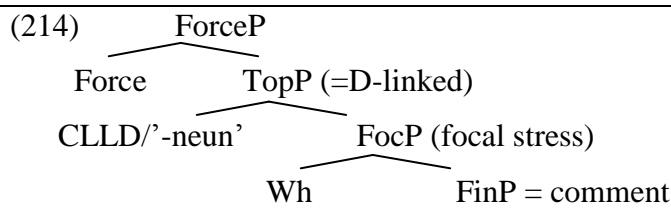
Therefore, the multiple foci construction, which is not also compatible with Cartography, can be depicted as follows:

(215) Multiple foci construction in Korean

    [CP C …(foc) (fin)…]

The relevant data are analyzed as follows:

(216) a. [CP C [Foc PPPALIj [FinP Totoro-NEUNi [TP [vP ti [VP tj [VP geod-] neun TP]-da CP].

              fast   Totoro-CF   walk-PRS-D

   'Totoro walks FAST'

   b. [CP C [FocP GEU PROJECT-LEULj [FinP Samsung-EUNi [TP [v*P tj [v*P ti [VP tj haenae-]

                the   project-ACC   Samsung-CF   achieve

    ss TP]-da CP].

    -PST-D

    'Samsung achieved THE PROJECT.' (that other companies didn't)

   c. [CP C [FocP EOTTEON PROJECT-LEULj [FinP Samsung-EUNi [v*P tj [v*P ti [VP tj

                which   project-ACC   Samsung-CF   achieve

    haenae-] ss TP] –ni CP]?

    achieve-PST

    'WHICH PROJECT did Samsung achieve? (not other companies)

In Rizzi (1997), it is assumed that the Spec-TopP forms Topic-comment and Spec-Foc yields Foc-pressuposition.

(217) a. Topic-comment construction	b. Focus-Presupposition constructions

TopP
  XP   Top'
          Top^0 YP
 	
XP= Topic
YP = comment
	FocP
	  ZP Foc'
	          Foc^0 WP
	
	ZP= Focus
	WP = Presupposition

[from Rizzi 2013:447]

I suggest, however, that it is the FinP that forms Topic-comment and Focus-pressuposition, recasting the idea that Spec-TP which has A and A-bar properties triggers categoric interpretations (i.e., topic-comment). Thus, subjects marked by '-neun' in Korean and preverbal subjects in Spanish will be located in FinP. Additionally, as we have assumed, null *pro* will occupy the position of Spec-TP considering that they are NSLs languages. In the Spec-v*P, posbverbal subjects in Spanish and subjects marked by '-i/-ga' will be placed.

Subjects in FinP	Objects/Subjects in FinP

(218)   FinP = comment
preverbal subjects   TP
'-neun' subjects *pro*   v*P
         post-veerbal subjects   VP
         '-i/-ga' subjects
	a. FinP [+c]
	preverbal subjects TP
	CLLD/FF/wh v*P
	'-neun'/'-leul'(scrambling) VP
	                  t/ in-situ

In our framework, the relevant sentences are analyzed as follows:

(219) Topic-comment/presuppposion readings for subjects

a. [_CP C [_FinP El Quijote_i [_TP *pro* le presó_j [_v*P t_i t_j el burro a Sancho]]]

      the Quixote   cl-him lend-PST-3.sg the donky to Sancho

'The Quixote, he lent the donky to Sancho.'

b. [_CP C [_FinP Donquijote-neun_i [_TP *pro* [_v*P t_i Sancho-egae dangnagui-leul bilyeoju-]

      the Quixote-TOP/CT   Sancho-DAT   donky-ACC   lend

eoss _TP] -da _CP]

  -PST-D

'The Quixote, he lent the donky to Sancho.'

(220) Contrastive topic readings for objects

a. [_/FinP El burro_i [_TP T se lo_i prestó_j [_v*P t_i [_v*P El Quijote t_j a Sancho t_i]]]

     the donky   SE cl-it lend-PST-3.sg the Quixote to Sancho

'The donky, El Quijote lent to Sancho.'

b. [_FinP dangnagui-neun_i [_TP T [_v*P t_i [_v*P Donquijote-ga_i Sancho-egae (geugeos-eul_i)

       donky-TOP/CT   the Quixote-NOM Sancho-DAT it-ACC

bilyeoju-]-eoss _TP] da _CP]

  lend-PST-D

'The donky, El Quijote lent to Sancho.'

I pointed out that there is an asymmetry between scrambling and topic sentences in the appearance of resumptive pronouns. That is to say, we have seen that the movement constraints found in the topic sentence in some strong island environments disappear when resumptive pronouns was inserted.

(221) Topic with resumptive pronouns under island

a. *Dotori-neun_i May-ga [_CP [_NP t_i gajyeoga-n [_NP saram-eul] chajgoissda.

  acron-TOP   May-NOM   took-who   person-ACC search-be-PRS

'As for the acorn, May is searching the person who took it.'

b.. Dotori-neun_i May-ga [_CP [_NP geugeos-eul_i gajyeoga-n [_NP saram-eul] chajgoissda.

  acron-TOP May-NOM   it-ACC took-COMP person-ACC   search-be-PRS

'As for the acorn, May is searching the person who took it.'

(222) Scrambling with resumptive pronouns under island

a. Dotori-leul$_i$ May-ga   [$_{CP}$ [$_{NP}$ t$_i$ gajyeoga-n [$_{NP}$ saram-eul] chajgoissda.

acron-TOP   May-NOM   took-who   person-ACC search-be-PRS

'The acorn, May is searching the person who took it.'

b.. *Dotori-leul$_i$ May-ga   [$_{CP}$ [$_{NP}$ geugeos-eul$_i$ gajyeoga-n [$_{NP}$ saram-eul] chajgoissda.

acron-TOP   May-NOM   it-ACC took-COMP   person-ACC   search-be-PRS

'The acorn, May is searching the person who took it.'

At this point, I would like to focus on topicliazation rather than scrambling. I assume that a null operator under Big-DP is base-generated as the head of D in topic sentence of Korean and undergoes covert movement. It is regarded that a null operator in topic sentence is [+pronominal], as argued by Choe (1995), which can be optionally phonetically expressed. Thus, it seems that strong island effects disappear when resumptive pronouns appear. On the other hand, I suggest that topic elements in Korean undergo overt movement, not following base-generation hypothesis, due to the fact that '-nuen' marked topic elements in passivization can be placed in the sentential initial position,as we have seen before.

As for the landing site of null operator (0$_i$), it can be a piece of evidence for the covert movement to FinP in Korean, which will be discussed later. The covert movement of null operator (0$_i$) to FinP, which have both A and A-bar properties, is expected to produce ambiguous cross-over effects. That is to say, both 'non cross-over effects' and 'cross-over effects' will appear in some topicalization constructions in Korean.

(223) a. Scrambling   b. Topicalization
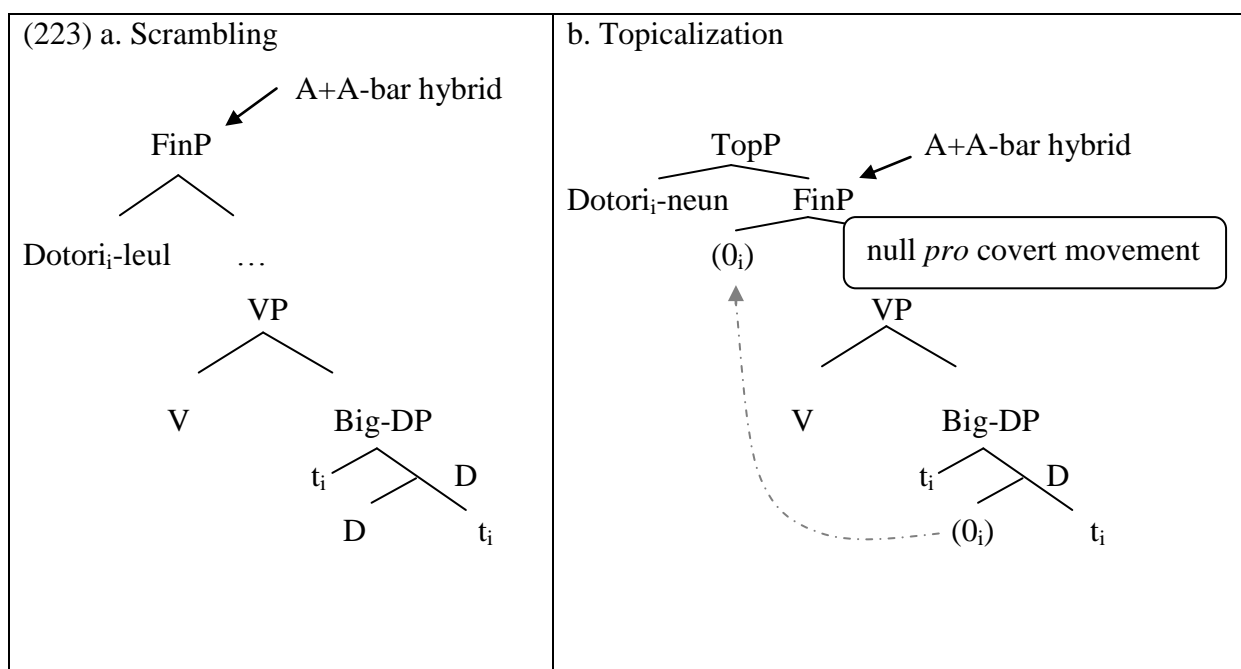
a. Scrambling-movement to FinP	a. Topic-movement (not base-generation) to TopP
b. Null D	b. null *pro* covert movement to FinP

Our proposal for topicalization can be summarized as follows:

(224) Topics in Korean

    a. Topics in Korean undergo overt movement to TopP

    b. null operator in topics have a [+pronominal] feature and it can be optionally phonologically expressed.

    c. null operator covertly move to FinP yielding ambiguous cross-over effects and removes strong island effects.

The assumption of A and A-bar hybrid properties provide a straightforward account for why in-situ focus exhibits movement effects such as cross-over effects, scrambling does not obey standard movement-contraints and topics yield ambiguous cross-over effects.

    As we have seen before, in-situ focus have displayed SCO and WCO effects. I repeat here for convenience.

(225) a. *geu-ga$_1$ [MINHO-UI$_1$ eomma-leul]$_2$ joahanda. (cf. 28a) (SCO)

        he-NOM   Minho-GEN mother-ACC   like

        'He likes Minho's mother.'.

    b. *? [geu-ui$_1$ adeul-eun]   NUGU-LEUL$_1$ jongyeongha-ni?   (cf. 29) (WCO)

        he-GEN   son-TOP   who-ACC   respect-Q

        'Who$_1$ does his$_1$ son respect?'

The fact that in-situ foci show cross-over effects means that they undergo a covert movement, so the focused elements will move to FinP with [+c] since focused elements have contrastive interpretations whether a focus moves or not. It can be considered that the A and A-bar hybrid features derives cross-over effects of focus covert movement, since the landing site FinP has both A and A-bar properties.

A plausible ground for the assumption that FinP may have both A and A-bar properties can be found in scrambling. Since scrambled elements have contrastive focus readings, it can be

considered that they move to Spec-FinP, in which are assigned the [+c] features, following López (2009). In section 5.3.3.3, I have provided empirical evidence that scrambling displays both A and A-bar effects. Since the landing site of scrambling with this A and A-bar effects is FinP by [+c] features, we can infer that FinP may have both A and A-bar properties.

Then, what is the evidence for the covert movement to FinP in Korean? In response to this question, I shall present the 'funny boinding' cases introduced in Choe (1995:314) as a piece of empirical evidence. Let us consider the following two sentences.

(226) a. (?) Chelswu-neun$_i$ (0$_i$) [**jaki-ga$_i$** geu il-eul haenassdaneun sasil-i] {**geu-leul/t**}$_i$
                  C-Top   self-NOM the thing-ACC   did-that fact-NOM h-ACC

      mopsi   kippeugaehaess-da
      very   please-make-PST-D.
     'Speaking of Chelswu$_i$, the fact that he did it pleased {him/t}$_i$'

  b. Chelswu-neun$_i$ (0$_i$) {**geu-ga/t**}$_i$ [Yenghi-ga {**geu-eul/*t**}$_i$ johahandago] saenggaghanda.
     C-Top   he-NOM Y-NOM   he-ACC   like-that   think
    'Speaking of Chelswu$_i$ {he/t}$_i$ thinks that Yengh$_i$ likes {him/*t}$_i$.'

The two sentences are topicalization in Korean. Also, it is generally analyzed that WCO effects in (226a) and SCO effects in (1b), which are movement diagnosis, do not exhibit in Topic sentence in Korean (the judgements vary dependeing on native speakers though) because it appeals to resumptive pronouns. However, I see that two sentences show ambiguous cross-over effects. In othe words, cross-over effects may or may not occur.

In Choe's (1995) analysis, the resumptive pronouns are regarded as null operator, which has [+pronominal] feature. The null operator in a topic sentence in Korean can be which can be optionally phonetically expressed such as 'geu' (Eng. he) in (226a) and (226b). (0$_i$) is the symbol of null operator, which moves to adjacent to topic marked elements, i.e., 'Chelswu'.

To summarized her explanation, when the second chain bind the first chain, which are all variables by the covert movement of null pro, the sentence is ungrammatical, and it is grammatical otherwise. The following is the LF representation of (226a) and 226b):

(227) topic$_i$ (0$_i$)   …   he/self$_i$ …   t$_i$

The adduced sentences can be interpreted in various ways, but I interpret it as follows:

(228) a. In (226a), if *jaki-ga$_i$* (Eng. self) binds *t,* the sentence is grammatical (no WCO effects). But if *'jaki-ga$_i$'* binds *geu-leul,* (Eng. him) the sentence is ungrammatical (WCO effects).

b. In (226b), if *geu-ga* (Eng. he) binds **t,* the sentence is ungrammatical (SCO effects). But if *geu-ga* does not binds **t,* it is grammatical (no SCO effects).

The tree diagram of (226a-b) is depicted as follows:

```
(229)
      CP
     /  \
        TopP           A+A-bar hybrid
       /   \          ◢
Chelwsui_i-neun   FinP
              /    \
           (0_i)    v*P
                   /   \
              he_i/self_i   CP
                  |        /\
                  |       /  \
                  |_____/_____ t_i

              ambiguous cross-over effects 'funny binding'
```

                                    ┌─────────────────────────────────┐
                                    │ null *pro* covert movement to Fin │
                                    └─────────────────────────────────┘
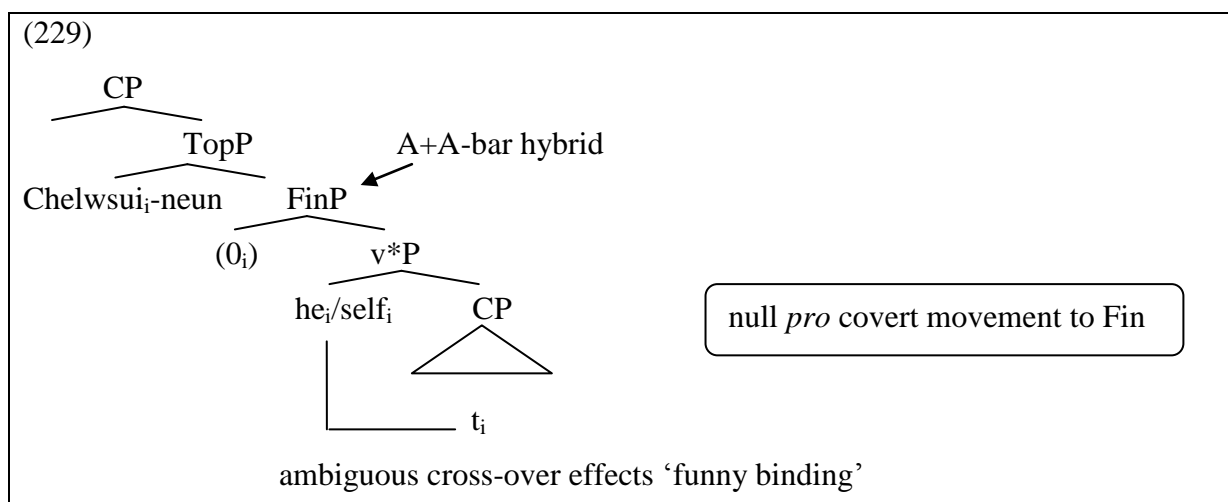
I assume that the reason for the ambiguous cross-ver effects is that the null operator covertly move to FinP which has both A and A-bar properties. I shall suggest that the co-indexed 'he' with null *pro* (0$_i$) would share the hybrid A and A-bar properties Thus, when 'he' binds 'ti' ambiguous cross-over effects occur.

Summing up, in this section, we have discussed that how the in-situ Focus/wh/Toic and scrambling, which are not well applied to cartographic approach, can be related to the left periphery. I have suggested that in the case of in-situ Focus/ Wh, involves covert movement and this is a parametric difference between Korean and Spanish. Also, I have proposed that the landing site of the covert movement is FinP, not TopP or FocP. The reason for the claim that they undergo covert movement is because cross-over effects, which are the properties of

movement, have appeared. I have also put forward that the landing site of the covert movement is FinP. According to the López's (2009) suggestion, in which the position of Spec-FinP is assigned by [+c] 'contrastive', it was assumed that FinP is the landing site of the covert movement of in-situ Foc and Top (but in the case of in-situ Topic, it can be analyzed that it involves an overt movement to FinP). In addition, I have regarded scrambling as being moved to FinP based on the fact that scrambling allow topic or focus interpretaions and contrastive readings.

In this section, the most important point of our proposal was that FinP has hybrid A and A-bar properties. Based on the fact that scrambling displays both A and A-bar effects in binding tests, I have suggested that FinP is a projection with hybrid both A and A-bar properties. It can be suggested reversely that this A and A-bar hybrid feature derives the cross-over effects of covert movement of in-situ elements, non-standard binding effects of scrambling and lack/ambiguous cross-over effects of covert movement of null operator in Topics in Korean. In other words, the A and A-bar hybrid feature of a projection may provide an account for the non-standard phenomena with respect to Cartography.

5.5. Conclusions

This chapter has examined how various parameters such as phonology, morphology and syntax can contribute to the variations within left periphery. Approaching from a morphological point of view, it can be regarded as the result of late lexical insertion after syntactic derivation, since certain particles that seemingly contain pragmatic functions are overt in such languages. As argued by Rizzi, however, the immediate dependence on morphology does not provide a straightforward account for the co-occurance, ordering restrictions, and multiple specifiers/ complementizers phenomena found in natural languages. Of course, as we have seen in Spanish data, there have been cases in which morphological parameters based on the syntactic perspective can render a plausible explanation of left peripheral effects that appear in a specific language. In this case, morphology was well applied to the pre-syntax part as a parameter.

As for the phonological parameters, I have provided some analysis of how multiple specifiers {XP, YP} can convey semantic effects without a derivation crash in terms of linearization between XP and YP. We have seen multiple nominative case structures in Korean when two identical units {XP, YP}are in the same spell-out domain, they must must be distinguished by 'Distinctiveness' phonolocial condition, therby providing a new

peripheral position with focus effect. We also have reviewed that subject-verb inversion in Spanish and case markers could be the result of applying this condition to the same units of DPs. Multiple Spell-out was another pnohological parameter that should be applied multiply to smaller units in more complex syntactic objects. I have provided an analysis that if there is more than one complex object of the same unit, the spell-out may not be applied step by step and the derivation crashes. Therefore, the setting of the phonological parameters provides a more flexible way in determining liniearization of {XP, YP} toward the left periphery domain than the strict syntactic principles.

Despite the morphological and phonological parameters with respect to the variations of left periphery, it may be worth focusing on syntactic parameters, given Minimalist syntax that the simplest principle, which is well-desinged in natural language, expresses the intended meanings. In this sense, we have attempted to find a uniform system focusing on the syntactic functions for the left peripheral constituents and their semantic effects. It may be readily assumed that the expressions of scope-discourse semantics is given by the meaning of certain particles such as *'-neun'* in Korean and *'-wa'* in Japanese, etc. from the morphological perspective or by phonological stress falling onto the left marginal elements. However, we could confirm movement operations of the left peripheral elements by applying them to tests such as island constratins, binding, the appearance of a case marker, etc.

As for the Spanish, I have agreed with the argument that HT is assumed to be base-generation and CLLD topics are the product of movement according to López (2009) and Rubio Alcalá (2014). Particularly, for CLLD topics unlike FF in Spanish, D-linked movement associataed with the previous discourse is assumed, given the fact that no WCO effects appear.

Unlike Spanish, it has been generally suggested that topicalization in Korean should be dealt with base-generation hypothesis with null operator movement at LF (H. Choe 1995; H. Lee 2008) due to the lack of island effects, the appearance of resumptive pronouns and Contrastive readings. However, I have argued that topicalization in Korean also undergoes movement, and then get the expressions for semantic effects, consequently. This assertion is in the same line with the claims that IM (i.e., movement) cross-linguistically provides scope-discourse effects under MERGE system (Chomsky 2004; Rizzi 2013; Gallego 2010; Chomsky, Gallego & Ott 2017).

Recasting the model proposed by López (2009) and Villalba (2000), I have insisted that all peripheral elements in both languages (i.e., preverbal subjects, CLLD topic, FF in Spanish

and scrambled elements marked by 'object-leul'/ 'wh-leul', subjects, topic elements marked by '-neun' in Korean) can move to the Spec-Fin, which can induce 'contrastive topic/focus readings' due to the [+c] features in that position. In the case of the 'old information/aboutness readings' and 'new information readings/appearance of focal stress', the preposed objects in both languages can also move to the Spec-Top and Spec-Foc, respectively. As for the in-situ phenomenon such as wh-in-situ/ focus-in-situ, the LF movement to Spec-Fin have been assumed as in the traditional approaches. In Korean (and maybe in Spanish as well), the semantic scope of wh-phrases in relative clausese can probably be licensed depending on the position of particular particles in C [+Q], as we have seen in this chapter. We will leave open this issue for further research.

Additionally, given that preverbal subjects in Korean and Spanish are Null and exhibit 'aboutness' yieding Topic-Comment', I have assumed that both languages have the base-generated null *pro* in Spec-TP following Rigau (1987), Fernández Soriano (1989a,b), Baker (1996) and J.Kim (2006) based on the fact that they are NSLs. Gallego (2010) have been proposed well-organized scenarios for the purposes of economic considerations pursued by Minimalist syntax, in which a simple operation such as MERGE yields scope-discourse or complex objects. That is to say, the analysis has been proposed that 'preverbal subjects with aboutness', 'preverbal subjects just as a subject' and 'null *pro*'should all be considered side effects caused by IM of the head of 'TP'. Nevertheless, I have attempted to focus on 'FinP' rathe than 'TP', given the possibility of 'Contrastive readings'.

Bearing the role of FinP in mind, I have argued that Spec-Fin has hybrid both A and A-bar status due to the fact that subjects preverbal in both languages and scrambled elements display both A and A-bar properties. As the grounds for this assumption, we have seen that the peripheral elements sufficiently have Contrastive readings. In Korean, especially, when phonologically stressed elements precede a 'XP-neun', then the '-neun' should be dealt with CF, not Topic. These findings have led us to the conclusion that preverbal subjects and scrambled elements can be located in Spec-FinP with [+c]. In addition to this, The movement of left peripheral elements to Fin have led us to the conclusion that Multiple foci constructions in Korean should be refined as [$_{CP}$ ... (Foc) (Fin) ...], not [$_{CP}$ ... (Foc) (Foc)...].

Finally, I have suggested that Head Movement creates a space of scope-discourse semantics. Capitalizing on the Gallego's (2010) idea that verb movement in Spanish activates the left periphery such as topicalization and focalization, I have provided that in Korean, the

rising of head of NegP '-ani' (to the right side) generates the position of the topic marker '-neun'.

As a consequence, based on empirical evidence found in both languages, I have concluded that IM provides A-bar properties as a side-effect as well as expressions for scope-discourse semantics uner MERGE system and hence, it can be a uniform system for comparative syntax.

Chapter 6

Conclusions

In this dissertation, I have dealt with the similarities and differences found in the left periphery of Korean and Spanish, and introduced various parameters that can be applied to variations within that clausal domain. In particular, it was a major challenge to consider how in-situ focus/wh/topic, scrambling and the topic marker '*-neun*' in Korean, which are the biggest difference between two languages, can be incorporated into the cartographic project. With this goal, this dissertation started with a discussion of how much typological characteristics of Korean differ from Spanish.

In this context, **Chapter 2** was devoted to the presentation of properties of agglutinative languages, and then compared with Romance language group. In doing so, we captures that Korean and Spanish are *pro*-drop languages, even if verbs in Korean do not encode inflectional information of subjects (i.e., person and number morphemes are not present in Korean verbs). In our proposal, this fact led to the conclusion that null pronouns '*pro*' in both languages occupy the Spec-TP. In addition to this, I have proposed that (preverbal) subjects in Korean and Spanish have properties of Topics, which can be phrased as them being regarded as A-bar in nature, on the basis of the investigation in chapter 2, in which subjects in (radical) pro-drop languages such as Chinese display a Topic-prominence behaviour. This fact led to the conclusion in the proposal section, that subjects in Korean (and Spanish) exhibit both A and A-bar properties. On the other hand, I introduced how verb endings (i.e., inflectional morphemes) such as tense, modal and illocutionary force are expressed in Korean. The properties of verb formation discussed there made us suggest that no verb movement in the subsequent chapter. Chapter 2 therefore, provided basic information on the discussions covered throughout the dissertation.

While chapter 2 briefly introduced a basic characterization of Korean, **Chapter3** discussed how word order in Korean such as [O-V] and [CP-V] are formed. There I pursued an LCA-based approach as a comparative methodological tool, claiming that [V-complement] adheres to a universal word order. However, it was not easy to give a straightforward account of how the [DO-V] order is derived by object shift from [V-DO], which is assumed as universal word order (under Kayne's (1994) LCA hypothesis). Although it was hard to find a ground for the [CP-V] order by left fronting the CP-complements, I could find a piece of evidence that [DO-

V] order is derived by object shift in Dutch data from Zwart (1992). Thus, following Zwart (1992) and Neeleman (2015), I argued that the lack of adjacency requirement between verbs and objects give rise to object shift yielding [O-V] order. The rest of this chapter was devoted to discussing whether verbs in Korean undergo movement such as Spanish. This was because the verb movement operation is generally assumed in Spanish, and I also wanted to explore Gallego's (2010) suggestions that verb movement is connected to the peripheral domain of sentences. As revealed later on in chapter 5, here we show that the status of verbs (i.e., finite or non-finite) in Korean does not affect the left peripheral marker '*-neun*' under a certain relative clause. Also, I argued that nominative case in Korean is assigned in Spec-vP based on the fact that in Korean coordination construction, one tense element (e.g. one T) is forced to assign two nominative cases. Therefore, in our proposal, the analysis assumed that *pro* is in Spec-TP and that subjects with nominative case marker is in Spec-v*P. Instead of verb movement, I suggested that Neg-raising exists in Korean. Based on this fact, chapter 5 provided empirical evidence that Neg head '*-ani*' raising creates the position of the topic marker '*-neun*'.

In order to enter into the main topic, **Chapter 4** dealt with the overall peripheral elements which are in CP-domain such as Wh, Topic, Focus found in both languages. In-situ wh/foc, scrambling and the functions of morpheme '*-neun*' do not fit well cartography, so they are also addressed. Besides, I introduced subtypes topics such as Haning Topic, Continuing Topic and Contrastive Topic comparing two languages and I provided that HT have similarities of '*-neun*'-dropped topicalization in Korean.

In this chapter, an additional investigation regarding force-finite system which is in CP-domain was made. I suggested the force-finite system together with ReportP, according to Saito (2010), based on the fact that Topic and Focus in Force-Finite system can co-appear in Romance languages (Spanish and Italian).

Finally, **Chatper 5** dealt with the parameters and variations within the Left Periphery. I put foward an analysis, in which phonological parameters are applied to some variations such as nominative multiple constructions in Korean and wh-phrases with subject-verb inversion and CLLD topicalization under subject island constraints in Spanish. I pointed out that some phonological principles such as Distinctness and Multiple Spell-out could be used to an account of the particular variation within the Left Periphery, but they do not yield a straightforward explanation of, for instance, post verbal CLLD Spanish. Much attention paid to the syntactic approach and parameters, which are the core part of this dissertation. I

attempted to find a parameter by which in-situ elements, scrambling and topicalization with '-*neun'* could be well integrated into cartography, as I pointed out in the introduction of this dissertation. I argued that in-situ elements indeed undergo movement, albeit in a covert fashion, following the movement hypothesis for CLLD, FF and Wh based on the analyses of binding tests and island constraints rather than base-generation hypothesis. Moreover, adopting Ko's (2017) binding tests, I found that scrambling has both A / A-bar effects such as pre-verbal subjects in Spanish. I judged that scrambling and preverbal subjects in both languages would be in the same projection based on the binding analyses that scrambling and preverbal subjects have a hybrid A and A-bar nature. Also, I suggested that scrambling, in-situ elements and topicalization in Korean as well as CLLD/FF/Wh all move to the FinP [+c] proposed by López (2009). This proposal was conceived from the fact that in-situ focus/topic and scrambling, topicalization are all have contrastive readings. Taking into account that scrambling displays a hybrid A and a-bar nature, it was concluded that the landing sited FinP may also have hybrid A and A-bar nature. I argued that this assumption could provide a plausible aaccount as for why in-situ focus/wh covert movement, both A and A-bar effects of scrambling, covert movement of null operator in topicalization of Korean have non-standard movement patterns. I finally emphassized that these results are compatible with Rizzi's (2013) and Chomsky's (2004) claims that movement operations (i.e., Internal Merge) created in a configuration can be used to express scope-discourse, and also that our proposal could be well applied to cartography that seemed difficult to integrate.

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