

Labeling, Cartography, and the Left-periphery of Korean Clauses*

Myung-Kwan Park & Jong Un Park**

(Dongguk University)

Park, Myung-Kwan & Park, Jong Un. (2018). Labeling, Cartography, and the Left-periphery of Korean Clauses. *The Linguistic Association of Korea Journal*, 26(4), 151-176. The main goal of this paper is to provide a cartographic approach to two salient interpretations, an 'exhaustive listing focus' (ELF) and a 'neutral description of event' (NDE) reading, from the initial Nominative Case-marked subject NP in matrix Multiple Nominative Case (MNC) constructions, as well as the Accusative Case-marked subject NP in Exceptional Case Marking (ECM) constructions. Regarding this so-called "first-position effect," we first argue, assuming Rizzi's (1997) cartographic view of clausal structure, that Korean does not have the [Spec,TP] position, and that the ELF reading is obtained when the clause-initial subject NP in both constructions ends up in the [Spec,FocP] position while the NDE reading is possible when the first subject NP stays low in the clause, namely in the [Spec,FinP] position. Second, following Chomsky's (2014, 2015) Labeling Algorithm, we argue that given the absence of phi-features in Korean, subject NPs are licensed by predication in Heycock's (1994, 2008) sense, and that labeling of a discourse-related projection like FocP becomes possible because of 'prominent feature sharing' after the subject NP raises to the specifier position of the functional projection. To support this claim, we present crosslinguistic evidence from English.

Key Words: cartography, labeling, exhaustive listing focus (ELF), neutral description of event (NDE)

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** Park, Myung-Kwan (Professor, first author); Park, Jong Un (Associate professor, corresponding author)

Case alternation appears to be limited to individual-level predicates, so when predicated by a stage-level predicate as in (3), the lower subject cannot be marked Accusative Case (J.-S. Lee, 1992; M.-K. Park, 1994, et seq.). Furthermore, the ECM-ed subject can also be interpreted in a couple of different ways, yielding a topic or focus reading that a categorical subject tends to produce.

(2) Individual-level predicates in ECM

- a. na-nun [Cheli-**ka** meli-ka pisangha-ta-ko]
 I-Top C.-Nom brain-Nom extraordinary-Decl-Comp
 sayngkakhay-ss-ta.
 think-Past-Decl
 'I thought that Cheli's brain was extraordinary (= super smart).'
- b. na-nun [Cheli-**lul** meli-ka pisangha-ta-ko]
 I-Top C.-Acc head-Nom extraordinary-Decl-Comp
 sayngkakhay-ss-ta.
 think-Past-Decl
 'I considered Cheli to be smart.'

(3) Stage-level predicates in ECM

- a. Cheli-nun [Yenghi-**ka** kongwen-eyse tali-nta-ko]
 C.-Top Y.-Nom park-Loc run-Decl-Comp
 sayngkakhay-ss-ta.
 think-Past-Decl
 'John thought (that) Yenghi ran in the park.'
- b. ?*Cheli-nun [Yenghi-**lul** kongwen-eyse tali-nta-ko]
 C.-Top Y.-Acc park-Loc run-Decl-Comp
 sayngkakhay-ss-ta.
 think-Past-Decl
 Intended: 'John considered Yenghi to run in the park.'

These facts lead us to pose a couple of theoretical questions: (i) How is NOM Case licensed, given that Korean does not show canonical phi-feature agreement?; (ii) Which is a right position to place the subject licensed by individual-level predication or the first NP in the Multiple NOM Construction (MNC), yielding a topic or focus reading?; and (iii) What is the landing site of

the ACC-marked subject and NOM-marked one in the ECM construction?

With these questions at hand, the purpose of this paper is two-folded. In the framework combining Labeling Algorithm (Chomsky, 2013, 2015) and Clausal Cartography (Rizzi, 1997), this paper first investigates the left periphery of the root clause in Korean and also aims at elucidating its connection with the left periphery of the ECM clause in Korean. The specific claims we will make in this paper are summarized as follows:

- The Spec-TP position does not exist in Korean clausal structure, but feature sharing in Chomsky's (2013, 2015) labeling algorithm enables NOM-marked subjects to be licensed.
- The subject predicated by an individual-level predicate or the first NOM-marked NP in the Multiple Nominative Construction (MNC) can occupy at least three positions such as [Spec,TopP], [Spec,FocP] and [Spec,FinP], and a topic or focus reading for an NP in [Spec,TopP] and [Spec,FocP] is derived via prominent feature sharing
- The so-called 'raised' Major Subject with Accusative Case in the ECM construction can also be located in one of those three positions, while the (non-)subject element co-indexed with the Major Subject stays low in clausal structure.

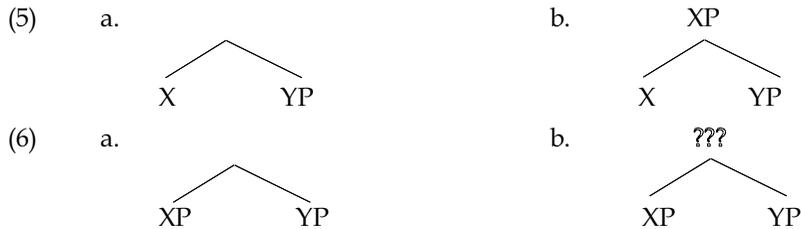
As for the organization of this paper, section 2 briefly sketches Chomsky's (2013, 2015) labeling system, focusing on a number of implications his system may bring to the core issues to be addressed in this paper. Building on the gists of Rizzi's (1997) system of cartography, section 3 develops a theoretical account for the range of readings available from the NOM-marked subject in root clauses. Section 4, then, will direct our discussion to the question of how a couple of readings from the ACC-marked subject in ECM contexts can be obtained from the suggested theoretical perspective. Section 5 summarizes and concludes the paper.

2. Labeling and Case in Korean

2.1. Labeling Algorithm in Chomsky (2013, 2015)

The Labeling Algorithm (LA) suggested by Chomsky (2013, 2015) is one of the most important theoretical backdrops of this paper—in particular, as a theoretical tool for explaining how NOM Case is licensed and a topic or focus reading is derived in Korean, a language known to lack phi-feature agreement. Under Chomsky’s LA, which is epitomized in (4), cases like (5) where the syntactic object to be labeled consists of a head and a phrase are to be distinguished from those like (6) where two phrases are combined.

- (4) Chomsky’s (2013, 2015) labeling algorithm
- a. Chomsky (2013, 45) reduces the problem of labeling to minimal search; the LA simply selects the closest head as the label. If the syntactic object (SO) to be labeled consists of a head and a phrase (as in (5a)), the LA selects the head as the label, resulting in (5b).
 - b. If, however, it consists of two phrases (as in (6a)), the LA locates two potential heads (i.e. the head of XP and the head of YP) and is unable to assign an unambiguous label.



What we’re more interested in is the case in (6b), and according to Chomsky’s LA, there are two ways to label the structure in (6b). To begin with, either one of the phrases moves (“labeling by evacuation”), leaving only one head as a potential label. Alternatively, some prominent feature like the interrogative feature or phi-features has to be shared (“labeling by prominent feature sharing (PFS”).

This being said, in section 2.2, we will address a couple of questions that

immediately arise concerning the positions for NOM Case licensing and the interpretations available to the NOM-licensed NP in such positions.

2.2. Lack of Phi-agreement and Case Licensing via Labeling

The first question that we need to ask is which projection a subject NP targets in Korean. It has been a general practice to postulate the [Spec,TP] position as the position hosting a subject NP in the clausal structure of Korean. This paper argues against this practice, in fact denying the existence of the [Spec,TP] position, although the projection of T itself is admitted; rather, Korean takes advantage of other specifier positions beyond TP.²⁾ Notice, however, that since there are cases where the subject NP, regardless of the type of a predicate, occupies somewhere higher than the [Spec,vP] position, we should be able to explain in which position the subject ends up being, as well as how such (a) position(s) correlates with a couple of interpretation patterns available from it, particularly predicated by an individual-level predicate. We conjecture that Rizzi's (1997) cartographic approach to clausal structure is a tenable approach that can do the job decently.

Then, the next question we need to address is how NOM Case is licensed in Korean where the [Spec,TP] position is lacking. This question is closely related to the issue of whether Korean has phi-features, comparable to those in languages like English. Following Kuroda (1988), we assume that Korean does not have those features. Owing to the absence of the relevant agreement features, the subject NP in Korean cannot land in the [Spec,TP] position. It stands to reason that the lack of the [Spec,TP] position in Korean follows from Chomsky's (2013, 2015) LA, which dictates that XP and YP enter into successful labeling via 'prominent feature sharing' that is indispensable for the labeling of the containing syntactic object (SO).

Against this backdrop, we are going to investigate the interpretive patterns of

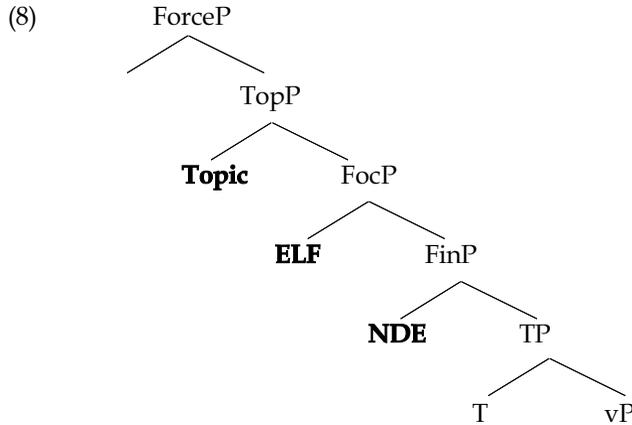
2) One reviewer asked us to provide independent evidence in favor of our claim that there is no specifier in TP. Rather than presenting direct empirical evidence, following Kuroda's (1998) thesis, we assume that Korean (as well as Japanese) lacks phi- or agreement features that feed into prominent feature sharing, which in turn enables the subject element in [Spec, TP] to be licensed properly. The lack of such features in Korean keeps the subject element from landing in [Spec,TP], which in turn moves further to the higher position.

Cheli-ka ecey kongwen-eyse ttuy-ess-ta.
 C.-Nom yesterday park-Loc run-Past-Decl
 'Cheli ran in the park yesterday.'

b. Exhaustive listing focus (ELF) interpretation

Cheli-ka hyenmyengha-ta.
 C.-Nom wise-Decl
 'It is Cheli that is wise.'

What intrigues us is that the cartography proposed by Rizzi (1997) provides a means to represent ELF as well as NDE readings in structural terms:⁴⁾



With this fine-grained structure, we would like to maintain, that Korean root sentences like (7) do not have the Spec-TP position; instead, the Spec,Fin(iteness)P plays a role in licensing subjects marked NOM Case in matrix

b. [_{CP} [_{TP} [_{TP} John-i apeci-ka chencay-i-ess]-ko [_{TP} Mary-ka emeni-ka
 J-Nom father-Nom genius-Cop-Past-Conj M-Nom mother-Nom
 miin-i-ess]]-ta]
 beauty-Cop-Past-Decl Yoon (2007, (30))

4) As one of the anonymous reviewers for this journal notes, Romance languages typically use a left-peripheral focus position to express what has been called contrastive, or corrective, focus (see Samek-Lodovici, 2006; Rizzi & Bocci, 2016). Such a position, always unique, can be preceded and followed by topics in Italian. Notice also that Heycock (1994, 2008) proposes that the effects arise in the mapping from syntax to information structure.

clauses (and embedded clauses as well, as we will see below).⁵⁾

Regarding how subjects are licensed in the current analysis, the second question raised in section 2.2, the Fin(iteness) head can have a nominal ([+N]) feature, which is what allows it to satisfy the Subject Criterion. When the XPs that move to [Spec, FinP] are DPs/NPs, the resulting syntactic object can be labeled via the sharing of this [+N] feature (Citko et al., 2008; Rizzi & Shlonsky, 2006).

Furthermore, as for two possible interpretations from the NOM-marked subject, which is related to the first question brought up in section 2.2, namely where the subject moves to, we argue that the neutral description of an event (NDE) reading via predication by a stage-level predicate is obtained when the subject ends up being in the [Spec,FinP] position. On the other hand, the exhaustive listing focus (ELF) reading via individual-level predication becomes possible when the subject lands in the [Spec,FocP] position.

As a consequence, we can expect a ‘thetic’ subject like the one in (9a), which does not meet the property-denoting requirement, to end up being in the [Spec,FinP], producing the NDE interpretation. In this respect, we follow Rizzi & Shlonsky (2006) and assume that the Finiteness head can have a nominal [+N] feature and the resulting syntactic object (i.e., FinP) can be labeled via the sharing of the feature. On the other hand, a ‘categorical subject’ like (9b), which denotes the characteristic property, occupies the [Spec,FocP] position, yielding the ELF interpretation (Yoon, 2004, 2007).

- | | | | | | |
|-----|----|---|----------|-------|--------------|
| (9) | a. | e(MS) tolkolay-ka(GS) | yeki-se | cikum | poin-ta. |
| | | dolphins-NOM | here-Loc | now | visible-Decl |
| | | ‘I can see some dolphins from here.’ (Thetic subject) | | | |

5) However, it should be underscored that we are not proposing these three possible positions for a subject in Korean on the basis of independent empirical evidence justifying each position. Rather, our claim hinges on the long standing observation that there is a correlation between what is a predicate type and how a subject is interpreted. It has been argued that the distinction between individual-level (or categorical) and stage-level (thetic) predicates affects the structural configuration and construal of subject elements that they are in predication with (cf. Diesing, 1992). Particularly, the interpretation of indefinites as subject elements is shown to interact with the predicate distinction. See Kim (1990) for such an interaction in Korean in addition to the relevant cases bearing on this issue.

Notice that what distinguishes the NOM-marked NP in (12a) from those in (10a) and (11a) lies in whether the NP at issue is base-generated in the left-edge of the sentence. In particular, only *Pwukhansan-i* 'Mt. Pwukhansan-NOM' has been dislocated from its canonical position preceded by another NOM-marked NP *mwul-i*, as shown in (12b). By contrast, the base position of each NOM-marked NP in (10a) and (11a) is already aligned to the left edge. From these examples in (10) through (12), we can draw the generalization that it is an ELF interpretation that the sentence-initial NOM-marked phrase obligatorily receives.

3.2. Problems with the One-to-One Mapping from Syntax to Information Structure

Notice, however, that if anyone insists that the mapping from syntax to information structure proceeds in a strictly one-to-one fashion, some problems would arise. In fact, the first NOM-marked phrase in the matrix MNC does not always receive an ELF reading, as in (13) through (15) taken from J. Yoon (2007).⁶ First, the second NOM-marked phrase is a sub-type of the first NOM-marked phrase in (13), where 747 is a type of airplane. Secondly, a *wh*-phrase as the second NOM-marked phrase is in focus, as in (14). Finally, the first NOM-marked phrase in the MNC need not be interpreted as a focus or topic, as in (15).

6) Kuroda (2005) notes that in Japanese (like in Korean), the Nom ('ga')-marked NP is construed as a topic.

(i) Q: ano hito wa dare desu ka?
 that person who be Q
 'Who is that person?'

R: ano hito-wa/ga ano yuumeina Microsoft no syatyoo no
 that person-Top/Nom that famous Gen president Gen
 Gates-san desu yo
 be

'He is that famous president of Microsoft, Mr. Gates.'

- (13) pihayngki-ka 747-i khu-ta.
 airplane-Nom 747-Nom big-Decl
 'As for airplanes, the 747 is the biggest.' (Topic)
 #'It is the airplane that the 747 is big.' (ELF)
- (14) pihayngki-ka etten kicong-i ceil khu-ni?
 airplane-Nom which model-Nom most big-Q
 'Among airplanes, which model is the biggest?'
- (15) Cheli-ka khi-ka khu-ta.
 C.-Nom height-Nom big-Decl
 'As for Cheli, his height is tall.' (Topic)
 'It is Cheli whose height is tall.' (ELF)
 'Cheli is tall in height.' (Non-topic, non-ELF)

Furthermore, the first-position effects (i.e., a matrix-initial NOM-marked subject is construed as having an ELF or topic reading) are restricted to the matrix declarative clause. For example, the first NOM-marked subject cannot get an ELF reading in the matrix question clause, as in (16). In addition, the initial NOM-marked subject of the lower clause need not get an ELF reading, as in (17).

- (16) Cheli-ka apeci-ka hakkyo-ey encey osi-ess-ni?
 C.-Nom father-Nomschool-Loc when came-Past-Q
 'As for Cheli, when did his father.'
- (17) a. Yenghi-nun [Cheli-ka kongwen-eyse ttuyn-ta-ko]
 Y.-Top C.-Nom park-Loc run-Decl-Comp
 sayngakhay-ss-ta.
 think-Past-Decl
 'Yenghi thought that Cheli ran in the park.'
- b. Yenghi-nun [Cheli-ka hyenmyengha-ta-ko]
 Y.-Top C.-Nom wise-Decl-Comp
 sayngakhay-ss-ta.
 think-Past-Decl
 'Yenghi thought that Cheli was wise.'

The reason the initial NOM-marked subject, which is not a *wh*-phrase, fails to show the first position effect in matrix questions like (16) may be attributed to the widely accepted view that a *wh*-word in the constituent question generally comes with information focus. As such, the first NOM-marked NP is not likely to convey another focus. By contrast, we tentatively assume that when the ECM-ed subject is not allowed, the first NOM-marked NP in the embedded clause bans the same effect to the NP because the non-ECM embedded clause fails to make the [Spec,FocP] position available. This restriction reminds us of the fact that topicalization generally does not arise in embedded clauses. Besides the restriction of the first-position effects to matrix clauses, they are not enforced in matrix clauses, as in (16) and (17). We suspect that the availability of different subject positions such as [Spec,FinP], in addition to [Spec,FocP] and [Spec,TopP], makes room for differently construed subject NPs. Admittedly, further research should be done regarding this issue.

3.3. Summary

To summarize what we have discussed in sections 3.1 and 3.2, the mapping from syntax to information structure (following Heycock (1994, 2008)) is subject to such structural/contextual factors as (i) the semantico-pragmatic type of a subject/predicate and (ii) the structural context of a clause. As for the positions that initial/first NOM-marked subject NPs in the MNC occupy in the matrix clause, (at information-structure representation) they can be placed in such positions as [Spec,TopP], [Spec,FocP], and [Spec,FinP] that both Rizzi's (1997) theory of cartography and Chomsky's (2013, 2015) LA interact to make available.

In section 4, we will turn to Case licensing and interpretations for ACC-marked subject in the Exceptional Case Marking (ECM) in Korean and see how the proposed system handles them.

be judged acceptable, contrary to fact, as in (18a). The unacceptability of (18a), unlike the object control sentence in (18b) with the absence of PBC effects, seems to disfavor the prolepsis analysis over the raising analysis.

Secondly, note that the epithet *ku nyesek* 'the guy' exhibits Condition C effects. According to the prolepsis analysis, then, the full NP marked ACC Case is expected to show Condition C effects as well, but the prediction is not borne out as shown in both (20b) and (21b) (cf. S.-W. Kim, 1996).

- (19) a. **ku nyesek*₁-i *Cheli*₁-lul *chingchanhay-ss-ta*.
 the guy-Nom C.-Acc praise-Past-Decl
 'The buy praised Cheli.'
- b. **ku nyesek*₁-i *Cheli*₁-lul *pinanhay-ss-ta*.
 the guy-Nom C.-Acc criticize-Past-Decl
 'The guy criticized Cheli.'
- (20) a. *Na-nun* [***ku nyesek***₁-i *ttokttokha-ta-ko*] *Cheli*₁-uy
 I-Top the guy-Nom smart-Decl-Comp C.-Gen
 emma-chelem sayngkakha-n-ta.
 mom-like think-Pres-Decl
 'I think that the *guy*₁ is smart, like *Cheli*₁'s mother.'
- b. ?*Na-nun* [***ku nyesek***₁-ul *ttokttokha-ta-ko*] *Cheli*₁-uy
 I-Top the guy-Acc smart-Decl-Comp C.-Gen
 emma-chelem sayngkakha-n-ta.
 mom-like think-Pres-Decl
 'I consider the *guy*₁ to be smart, like *Cheli*₁'s mother.'
- (21) a. *Na-nun* [***ku papo***₁-ka *chencay-lako*] *Toli*₁-uy
 I-Top the fool-Nom genius-Comp T.-Gen
 emma-celem sayngkakha-n-ta.
 mom-like think-Pres-Decl
 'I think that the *fool*₁ is a genius, like *Toli*₁'s mother.'
- b. ?*Na-nun* [***ku papo***₁-lul *chencay-lako*] *Toli*₁-uy
 I-Top the idiot-Acc genius-Comp T.-Gen
 emma-celem sayngkakha-n-ta.
 mom-like think-Pres-Decl
 'I think that the *fool*₁ is a genius, like *Toli*₁'s mother.'

In short, the PBC effects and the height effects data in (18) and (20)-(21), respectively, suggest that Korean ECM subjects stay inside the embedded clause. Then, where are they located inside the embedded clause? Bearing in mind that the ECM-ed subject in Korean does not move out of the lower clause, let us see the interpretive patterns of the ACC marked-subject in the ECM construction. First, Korean ECM-ed NPs are restricted to so-called ‘major subjects’ (not necessarily grammatical subjects), like subjects of categorical judgment clauses displaying a characteristic property and behaving as what a clause is about (topic-like).

- (22) Na-nun [naynyen-ul Kim kyoswunaim-i unthoyhasin-ta-ko]
 I-Top next.year-Acc Kim Prof.-Nom retire-Decl-Comp
 sayngkakhay-ss-ess-ta.
 think-Past-Asp-Decl
 ‘I thought the next year to be the year that Prof. Kim would retire.’

Yoon (2007)

- (23) a. Na-nun [Pwukhansan-ul mwul-i manhi nanta-ko]
 I-Top Mt. P.-Acc water-Nom a.lot flow-Comp
 sayngkakhanta
 think
 ‘I believe that there are a lot of springs flowing from Mt. Pwukhan.’
- b. Mwul-i Pwukhansan-eyse/*ul manhi nanta.
 water-Nom Mt. P.-Loc/*Acc a.lot flow
 ‘Many springs flow from Mt. Pwukhan.’
- c. Pwukhansan-i mwul-i manhi nanta.
 Mt. P.-Nom water-Nom a.lot flow
 ‘As for/it is Mt. Pwukhan (from which) a lot of springs flow.’
- Yoon (2007, (4c) & (20b-c))

Secondly, in association with ‘major subject’ properties of ECM-ed NPs, ECM is generally restricted to complex sentences with an individual-level predicate in the embedded clause, while event or stage-level predicates are not permissible in the ECM construction, as follows. That is, if the embedded predicate is an individual one like *yengliha-* ‘intelligent,’ the lower subject can be ACC

Case-marked, as in (24a,b). If, on the other hand, the embedded predicate is a stage-level one such as *poi-* ‘visible’ or an eventive predicate like *ttwi-* ‘jump,’ its subject is not allowed to be ACC-marked, as in (25a) and (25b), respectively.

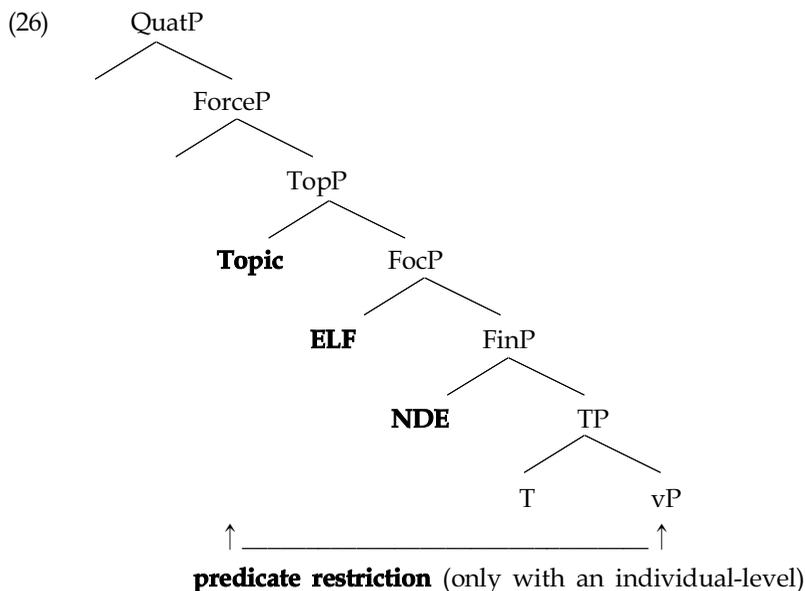
- (24) a. Cheli-nun **tolkolay-lul/ka** phoyutongmwul-ila-ko
 C-Top dolphins-Acc/Nom mammal-Cop-Comp
 sayngkakha-n-ta
 think-Pres-Decl
 ‘Cheli considers dolphins to be mammals.’
- b. Cheli-nun **tolkolay-lul/ka** yenglihata-ko
 C-Top dolphins-Acc/Nom intelligent-Comp
 sayngkakahanta
 thinks
 ‘Cheli considers dolphins to be intelligent.’
- Yoon (2007, (21a,b))
- (25) a. Cheli-nun **tolkolay-*?lul/ka** pointa-ko
 C-Top dolphins-Acc/Nom visible-Comp
 saynghakhanta.
 think-Pres-Dec
 ‘Cheli considers dolphins to be visible.’
- b. Cheli-nun **tolkolay-*?lul/ka** mwul-eyse ttwie
 C-TOP dolphins-Acc/Nom water-from jump
 ollassta-ko sayngkakhayssta
 up.Past-Comp thought
 ‘Cheli considers dolphins to have jumped from the water.’
- Yoon (2007, (22a,b))

With these two properties of the Korean ECM construction at hand, we will provide our answer to the question about the possible positions of the ECM-ed subject in section 4.2.

4.2. The ECM Subject Revisited under the Cartographic Approach

Repeating the question here from section 4.1, where does the ECM-ed subject

occur under the current cartographic system we are keeping to? As for its structural position, we argue that the ECM-ed subject occupies at least a higher position than TP. Specifically, the ECM-ed subject is positioned in one of the Spec's such as [Spec,TopP], [Spec,FocP], and [Spec,FinP], as schematized in (26).⁷⁾



For example, in (27a) and (27b) the ECM-ed subject marked ACC Case cannot receive a topic reading, which means that it cannot occupy [Spec,TopP]. But since the predicate is individual-level, the subject can end up in [Spec,FocP], which gives rise to the exhaustive list focus reading.

- (27) a. Cheli-nun [nwukwu-lul ttoktokha-ta-ko]
 C.-Top who-Acc smart-Decl-Comp
 sayngkakha-ni?
 think-Q
 'Who(m) does Cheli consider to be smart?' (ELF)

⁷⁾ ForceP or MoodP may be collapsed into one syntactic object with TopP, following Whitman (1991).

- b. Cheli-nun [totaychey **nwukwu-lul** ttokttokha-ta-ko]
 C.-Top on.earth who-Acc smart-Decl-Comp
 sayngkakha-ni?
 think-Q
 ‘Who(m) the hell does Cheli consider to be smart?’ (ELF)

On the other hand, the ECM-ed subject in (28a) and (28b) does not allow for an exhaustive list focus reading; instead, the ECM-ed subject can occur in [Spec,TopP], thereby yielding a topic reading.⁸⁾

- (28) a. Yenghi-nun [**pihayngki-lul** etten kicong-i ceil
 Y.-Top airplane-Acc which model-Nom most
 khuta-ko] sayngkakha-ni?
 big-Comp think-Q?
 ‘(Lit.) Yengi thinks, speaking of airplanes, which model to be the
 biggest?’ (Topic)
- b. Yenghi-nun [**Cheli-lul** mwueka khuta-ko]
 Y.-Top C.-Acc what big
 sayngkakha-ni?
 think-Q
 ‘(Lit.) Yengi thinks Cheli to be big in what?’ (Topic)

Observe that (29) is the most extreme case where the ACC-marked ECM subject exhibits not only a topic or exhaustive focus reading but also a non-topic and non-exhaustive focus reading.

8) One reviewer raised a question of how our approach properly rules out a possibility of interpreting *nwukwu-lul* ‘who-ACC’ in (27) as a topic; similarly, the same reviewer asked how *pihayngki-lul* ‘plane-ACC’ or *Chelswu-lul* ‘Chelswu-ACC’ in (28) is banned from giving a rise to a neutral description of an event reading. We suggest that *nwukwu-lul* cannot land in the Spec-TopP position simply because the ACC-marked *wh*-NP resists a topic interpretation. On the other hand, the reason *pihayngki-lul* or *Cheswu-lul* is not allowed to end up in the Spec-FocP position is that they are not compatible with an ELF reading. Simply put, in both cases, the ACC-marked NP can in principle move up to the position at issue, but such movement is destined to be filtered out at LF, particularly in the course of semantic composition.

- (29) Yenghi-nun [Cheli-lul khi-ka khu-ta-ko]
 Y.-Top Cheli-Acc height-Acc big-Decl
 think-Decl
 saynghakha-nta.
 '(Lit.) Yengi thinks, speaking of Cheli, his height to be tall.' (Topic)
 '(Lit.) Yengi thinks of it to be Cheli to be tall.' (ELF)
 '(Lit.) Yengi thinks of Cheli to be tall in height.' (Non-topic, non-ELF)

It stands to reason that when it has a non-topic and non-exhaustive focus reading, the ACC-marked ECM subject stays in [Spec,FinP] under the current system.

Then, how does the ECM-ed subject NP get its Case licensed? Following the standard view on Case marking in the ECM construction, we simply assume that the higher verb (or the light verb) assigns ACC Case to the ECM-ed subject in the [Spec,TopP], [Spec,FocP] or [Spec,FinP].⁹⁾

4.3. Cross-linguistic Evidence

We have postulated three different subject positions in matrix and ECM clauses in Korean. Is Korean unique in this respect? It seems that the answer is 'no.' In fact, Cardinaletti (1997, 2004) argues that there are at least two distinct subject positions in English. One argument in favor of it is rehearsed in (30): a referential subject can be disconnected from the predicate by a parenthetical clause as in (30a), whereas a semantically vacuous expletive cannot be as in (30b):

9) We basically follow the standard assumption that the higher verb may be able to assign ACC Case to the lower subject in Korean ECM contexts only when the predicate of the lower clause is an individual-level one. On top of this, we make an additional assumption that the higher verb in the ECM context renders the [Spec,TopP] or [Spec,FocP] available, thereby allowing the ECM-ed subject to climb up to either of the two positions and share prominent features such as [+focus] or [+topic]. One consequence of this movement to the left periphery of the lower clause is that the lower subject becomes visible to the higher verb and obviates a violation of Chomsky's (2004) Phase Impenetrability Condition. Thanks to one reviewer for asking us to clarify this issue.

- (30) a. John/He, as you know, is a nice guy.
 b. *There, as you know, was a man in the garden.

Cardinaletti (1997, 45)

Based on this distinction, Cardinaletti distinguishes two subject positions in [Spec,SubjP] and [Spec,Agr-sP/TP]:

- (31) [**SubjP** DP [(parenthetical) [**AgrSP/TP** DP ...]]]

Cardinaletti (2004, (80))

The higher subject position in [Spec,SubjP] is to be filled by the element that qualifies as the logical subject of predication: by its very nature, this position cannot be occupied by an expletive. The lower subject position in [Spec,Agr-sP/TP], instead, is reserved for subject agreement and Nominative Case checking. Cardinaletti argues that the subject in [Spec,SubjP] receives a categorial interpretation, whereas when the higher Spec position is empty, we obtain a thetic interpretation for the subject in [Spec,Agr-sP/TP].

Rizzi (2005) rephrases Cardinaletti's analysis in terms of the so-called Subject Criterion. A criterion is a requirement which must be met at the syntax-semantics interface: the specifier of a functional head endowed with a 'scopal' feature must be occupied by a syntactic constituent sharing the relevant feature. In the case at hand, Rizzi proposes that the criterial head Subj of (31) carries an [aboutness] feature which must be matched with a DP occupying its Spec at the interface.

Showing that there is ample cross-linguistic evidence for postulating multiple subject positions, we touch on the distinction between labeling with phi-features and without. Recall that in Korean, [Spec,TP] is not available because T lacks phi-features that undergo prominent feature sharing (PFS). To the extent that this analysis is right, our analysis cannot be compatible with Miyagawa's (2005, 2010) proposal that in languages like Japanese, d(iscourse)-features have the same syntactic function as phi-features in English. Instead, our analysis is consonant with the idea developed by Saito (2014, 2016) that in Japanese an {XP-Case, YP} structure (where an overt Case particle is attached to XP) is labeled as YP, claiming that overt Case particles in Japanese have the function of

making a phrase invisible to labeling (See Conj in Chomsky (2013) and R(oot) in Chomsky (2015) for a similar view). If we adopt this proposal in the labeling theory, we can get the following prediction. Without the phi-feature(s) shared by XP and YP, an {XP, YP} structure would be unlabeled in Japanese/Korean as well as in English, but if one of the constituents is Case-marked, as in {XP-Case, YP}, it receives a label in Japanese/Korean.¹⁰⁾

5. Conclusion

We have provided a cartographic approach to two salient interpretations, such as an ‘exhaustive listing focus’ (ELF) and ‘neutral description of event’ (NDE) reading, from the initial Nominative (NOM) Case-marked subject NP in matrix Multiple Nominative Case (MNC) constructions, as well as from the Accusative (ACC) Case-marked subject NP in Exceptional Case Marking (ECM) constructions. Building on Rizzi’s (1997) cartographic view on the clausal structure, we made a claim that Korean lacks the [Spec,TP] position, and that the ELF or topic reading arises when the clause-initial subject NP in both constructions ends up in the [Spec,FocP] or [Spec,TopP] position while the NDE reading is available when the first subject NP stays low in the clause, namely in the [Spec,FinP] position.

Second, it was argued that nominative Case of the subject NP is licensed by predication in Heycock’s sense, not by phi-features which are absent in Korean, and that under Chomsky’s (2013, 2015) Labeling Algorithm, labeling of a discourse-related projection like FocP or TopP becomes fulfilled by ‘prominent feature sharing’ after the subject NP raises to the specifier position of such

10) One reviewer asked us to clarify whether our approach is consonant with Chomsky’s (2013) labeling system. As discussed in a couple places in this paper, we basically assume with his labeling system, in that such a configuration as {XP, YP} can be labeled, in particular by sharing a prominent feature of YP, not by extracting XP out of the configuration. One thing that may distinguish our approach from Chomsky’s is that we assume that prominent features shared by XP and YP include discourse-oriented features such as [+topic] and [+focus]. Furthermore, as mentioned in this section, our current view is somehow compatible with Saito’s (2014, 2016) labeling algorithm in that it is YP, not XP-Case, that contributes to labeling of the configuration of {XP-Case, YP}.

projections. In Chomsky's (2013, 2015) labeling system, one of the most important issues that needs further elaboration is what prominent feature(s) are. Apparently, these features are the formal/syntactic features that are borne by a functional category and enter into feature sharing/agreement with the elements in its Spec. What we claimed in the body is that in Korean, T is deficient in such features, but other functional categories such as Fin, Foc, Top at the periphery of a clause are robust in such features.

We briefly touched on the crosslinguistic evidence for the view held by the current paper. In particular, how a categorical interpretation for a subject NP, separated by a parenthetical adverb, can be obtained in English was presented as one piece of evidence.

References

- Cardinaletti, A. (1997). Agreement and control in expletive constructions. *Linguistic Inquiry* 28, 521-33.
- Cardinaletti, A. (2004). Toward a cartography of subject positions. In L. Rizzi (Ed.), *The structure of CP and IP* (pp. 115-165). Oxford University Press.
- Chesi, C., & Bianchi, V. (2014). Subject islands, reconstruction, and the flow of the computation. *Linguistic Inquiry*, 45(4), 525-569.
- Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, N. (1995). *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, N. (2004). Beyond explanatory adequacy. In A. Belletti (Ed.), *Structures and beyond. The cartography of syntactic structures* (volume 3). Oxford: Oxford University Press.
- Chomsky, N. (2013). Problems of projection. *Lingua*, 130, 33-49.
- Chomsky, N. (2015). *Problems of projection: Extensions*. In E. Domenico, C. Hamann, & S. Matteini (Eds.), *Structures, strategies and beyond: Studies in honor of Adriana Belletti* (pp. 1-16). Amsterdam: John Benjamins.
- Chung, D. (2005). What does bare *-ko* coordination say about post-verbal morphology in Korean? *Lingua*, 115, 549-568.
- Diesing, M. (1992). *Indefinites*. Cambridge, MA: MIT Press.
- Heycock, C. (1991). Layers of predication: The non-lexical syntax of clauses.

- Unpublished doctoral dissertation, University of Pennsylvania.
- Hiraiwa, K. (2002). Indeterminate agreement and raising in Japanese. Paper presented at the 21st Annual Meeting of West Coast Conference on Formal Linguistics (WCCFL 21).
- Hoji, H. (1991). Raising-to-object, ECM, and the major object in Japanese. Paper presented at the Japanese Grammar Workshop. University of Rochester.
- Hoji, H. (2005). Major object analysis of the so-called raising-to-object constructions in Japanese. Paper presented at New Horizons in the Grammar of Raising and Control Workshop. LSA Summer Institute, Harvard University.
- Hong, K.-S. (1990). Subject-to-object raising in Korean. In K. Dziwirek, P. Farrell, & E. Mejías-Bikandi (Eds.), *Grammatical relations: A crosslinguistic perspective* (pp. 215-225). Stanford: CSLI Publications.
- Hong, S.-M. (2005). "Exceptional" case-marking and resultative constructions. Unpublished doctoral dissertation, University of Maryland, College Park.
- Kim, K.-S. (1990). Where do the contrastive and focus readings come from? In H. Hoji (Ed.), *Japanese/Korean Linguistics* (pp. 395-412). Stanford: CSLI Publications.
- Kim, S.-W. (1996). ECM and AGRoP in Korean. *Journal of the Institute of Humanities & Social Sciences*, 25, 39-49.
- Kuroda, Y. (1972). The categorical and the thetic judgment: Evidence from Japanese syntax. *Foundations of Language*, 9, 153-185.
- Kuroda, Y. (1988). Whether we agree or not. *Linguisticae Investigationes*, 12, 1-47.
- Kuno, S. (1973). *The structure of the Japanese language*. Cambridge, MA: MIT Press.
- Lee, J.-S. (1992). Case alternation in Korean: Case minimality. Unpublished doctoral dissertation, UConn, Storrs, CT.
- Miyagawa, S. (2005). Unifying agreement and agreement-less languages. *Proceedings of WAFL*. MIT Working Papers in Linguistics.
- Miyagawa, S. (2010). *Why agree? Why move? Unifying agreement-based and discourse-configurational languages*. Cambridge, MA: MIT Press.
- Oka, T. (1988). Abstract case and empty pronouns. *Tsukuba English Studies*, 7, 187-227.
- Park, M.-K. (1995). A morpho-syntactic study of Korean verbal inflection. Unpublished doctoral dissertation, UConn, Storrs, CT.

- Rizzi, L. (1997). The fine structure of the left periphery. In L. Haegeman (Ed.), *Elements of grammar* (pp. 281-337). Netherlands: Springer.
- Rizzi, L. (2005). On some properties of subjects and topics. In L. Bruge, G. Giusti, N. Munaro, W. Schweikert, & G. Turano (Eds.), *Contributions to the XXX Incontro di Grammatica Generativa* (pp. 203-224). Cafoscarina, Venezia.
- Rizzi, L. & Bocci, G. (2017). The left periphery of the clause - primarily illustrated for Italian. In M. Everaert & H. van Riemsdijk (Eds.), *The Wiley Blackwell companion to syntax*, 2nd Edition. Oxford: Blackwell Publishing.
- Rizzi, L. & Shlonsky, U.. (2006). Satisfying the subject criterion by a non subject: English locative inversion and Heavy NP Shift. In M. Frascarelli (Ed.), *Phases of interpretation* (pp. 341-61). Berlin: Mouton De Gruyter.
- Saito, M. (1983). Comments on the papers in generative syntax. In Y. Otsu, H. van Riemsdijk, K. Inuoe, A. Kamio, & N. Kawasaki (Eds.), *Studies in generative grammar and language acquisition* (pp. 79-89). Tokyo: International Christian University.
- Saito, M. (1985). Some asymmetries in Japanese and their theoretical implications. Unpublished doctoral dissertation, MIT, Cambridge, Mass.
- Saito, M. (1992). Long distance scrambling in Japanese. *Journal of East Asian Linguistics*, 1, 69-118.
- Saito, M. (2014). Case and labeling in a language without ϕ -feature agreement. In A. Cardinaletti, G. Cinque, & Y. Endo (Eds.), *On peripheries: Exploring clause initial and clause final positions* (pp. 269-297). Tokyo: Hitsuzi Syobo Publishing.
- Saito, M. (2016). (A) Case for labeling: Labeling in languages without phi-feature agreement. *The Linguistic Review*, 33, 129-175.
- Samek-Lodovici, V. (2006). When right dislocation meets the left-periphery: A unified analysis of Italian non-final focus. *Lingua*, 116, 836-873.
- Sells, P. (1990). Is there subject-to-object raising in Japanese? In K. Dziwirek, Patrick Farrell, & E. Mejías-Bikandi (Eds.), *Grammatical relations: A cross-linguistic perspective* (pp. 445-457). Stanford: CSLI Publications.
- Takano, Y. (2003). Nominative objects in Japanese complex predicate constructions: A prolepsis analysis. *Natural Language and Linguistic Theory*, 21, 779-834.
- Tanaka, H. (2002). Raising to object out of CP. *Linguistic Inquiry*, 33, 637-652.
- Whitman, J. (1991). String vacuous I to C. A paper presented at GLOW.

- Yoon, J. H. (2004). Non-nominative (major) subjects and case-stacking in Korean. In P. B. Haskararao & K. V. Subbarao (Eds.), *Non-nominative Subjects*, vol. 2, pp. 275-324. Berlin: Mouton de Gruyter.
- Yoon, J. H. (2007). Raising of major arguments in Korean (and Japanese). In W. D. Davies & S. Dubinsky (Eds.), *New horizons in the analysis of control and raising* (pp. 71-108). Dordrecht: Springer.

Myung-Kwan Park

Professor

Division of English

Dongguk University

30, 1-gil, Phildong-ro, Chung-gu,

Seoul 04620, Korea

parkmk@dgu.edu

Jong Un Park

Associate Professor

Department of English Language and Literature

Dongguk University

123, Dongdae-ro, Gyeongju-si

Gyeongbuk 38066, Korea

jupark@dongguk.ac.kr

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