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A COMPARATIVE SYNTAX OF ELLIPSIS IN JAPANESE AND KOREAN*

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1 Introduction

Japanese and Korean are known to be very similar in syntax. The task of Japanese-Korean comparative syntax is then to shed light on the nature of general principles based on their common properties and to investigate micro-parameters that explain their differences. This paper examines ellipsis in the two languages, focusing on argument ellipsis, "sluicing," and N'-ellipsis. We argue that the relevant phenomena provide evidence for the LF copying analysis of ellipsis over the PF deletion analysis. We also show that N'-ellipsis obtains in Japanese but not in Korean and attribute this difference to a micro-parameter in the genitive marker insertion rule.

It has been known since Kim 1999 and Oku 1998 that argument-ellipsis applies in the same way in Japanese and Korean. Examples from the two languages are shown in (1)-(2).

(1) a. John-wa [$_{CP}$ [$_{NP}$ zibun-no teian]-ga saiyoosareru-to] omotteiru (J)
J-top self-gen proposal-nom be.adopted-comp think
'John thinks that his proposal will be adopted.'

b. Mary-mo [$_{CP}$ ___ saiyoosareru-to] omotteiru
M-also be.adopted-comp think
'Mary also thinks that her proposal will be adoped.'

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(2) a. John-un [$_{CP}$ [$_{NP}$ caki-uy ceyan]-i chaythayktoylkela-ko] sayngkakhanta (K)
J-top self-gen proposal-nom will.be.adopted-comp think
'John thinks that his proposal will be adopted.'

b. Mary-to [$_{CP}$ ___ chaythayktoylkela-ko] sayngkakhanta
M-also will.be.adopted-comp think
'Mary also thinks that her proposal will be adopted.'

Oku (1998), in particular, argued that the "missing arguments" such as those in (1b) and (2b) are interpreted by LF copying. Persuasive empirical evidence for this is presented in Shinohara 2006. We briefly go over Shinohara's discussion in the following section.

The situation with "sluicing," initially examined by Takahashi (1994), is slightly more complicated. Representative examples are shown in (3)-(4).

(3) John-wa dareka-kara tegami-o uketotta-ga, (J)
J-top someone-from letter-acc received-though
boku-wa [dare-kara-(da)-ka] wakaranai
I-top who-from-cop-Q not.know
'John received a letter from someone, but I don't know from whom.'

(4) John-i nwukwunka-lopwuthe phyenci-lul patass-ciman, (K)
J-top someone-from letter-acc received-though
na-nun [nwukwu-lopwuthe-i-nci] molunta
I-top who-from-cop-Q not.know
'John received a letter from someone, but I don't know from whom.'

As discussed in Section 3, many analyses have been proposed for the phenomenon in both Japanese and Korean, and this has made the comparison difficult. We argue along the lines of Saito 2004 that the relevant examples are derived by applying argument ellipsis to cleft sentences, deleting the CP that expresses the presupposition. It is shown that an apparent problem that arises with this analysis for Korean is resolved if we assume the LF copying analysis.

Finally, Japanese and Korean contrast with respect to N'-ellipsis: Japanese has it as argued in Saito and Murasugi 1990, but Korean does not. This is shown in (5)-(6).

(5) [Taroo-no kenkyuu-nitaisuru taido]-wa yoi-ga, (J)
T-gen research-toward attitude-top good-though
[Hanako-no ___]-wa yoku-nai
H-gen -top good-not
'Taroo's attitude toward research is good, but Hanako's isn't.'

(6) *[Chelswu-uy yenkwu-eytayhan thayto]-nun coh-cimen, (K)
C-gen research-toward attitude-top good-though
[Swuni-uy ___]-nun cohci ahnta
S-gen -top good not
'Chelswu's attitude toward research is good, but Swuni's isn't.'

In Section 4, we argue that the context of genitive insertion is slightly more restricted in Korean than in Japanese, and this makes N'-ellipsis impossible in the language. Then, comparing N'-

ellipsis with right-node raising, examined in detail in An 2007, we show that this analysis of the contrast in (5)-(6) implies that N'-ellipsis involves LF copying rather than PF deletion. Section 5 concludes the paper.

2 Argument Ellipsis as LF Copying

In this section, we first discuss Oku's (1998) evidence for argument ellipsis and then introduce Shinohara's (2006) argument that it is interpreted by LF copying.

The investigation leading to the argument ellipsis hypothesis started with Otani and Whitman's (1991) discussion of examples such as (7)-(8).

(7) John-ga zibun-no konpyuutaa-o kowasita. Mary-mo __ kowasita (J)
J-nom self-gen computer-acc destroyed M-also destroyed
'John destroyed his computer. Mary also destroyed his/her computer.'

(8) John-i caki-uy khemphyute-lul pwuswuessta. Mary-to __ pwuswuessta (K)
J-nom self-gen computer-acc destroyed M-also destroyed
'John destroyed his computer. Mary also destroyed his/her computer.'

The object is missing in the second sentences of these examples. Null objects in Japanese/Korean have been assumed to be *pro* since Kuroda 1965, but what Otani and Whitman pointed out is that those in (7)-(8) allow sloppy interpretation in addition to strict interpretation. This is unexpected under the *pro* hypothesis and requires a new analysis. Otani and Whitman, following Huang's (1987) analysis of similar phenomenon in Chinese, proposed that the sloppy interpretation is made possible by VP-ellipsis. More specifically, they argued that V is raised out of VP to T and the remnant VP is elided. This results in the deletion of the object and correctly predicts the interpretations of (7)-(8) as it is known that sloppy interpretation is possible with ellipsis.

Building on Otani and Whitman 1991, Kim (1999) and Oku (1998) introduced examples that are similar to (7)-(8) but cannot be explained as instances of VP-ellipsis. For example, Oku showed that not only null objects but also null subjects permit sloppy interpretation. His Japanese example and its Korean counterpart in (1)-(2) are repeated in (9)-(10).

(9) a. John-wa [$_{CP}$ [$_{NP}$ zibun-no teian]-ga saiyoosareru-to] omotteiru (J)
J-top self-gen proposal-nom be.adopted-comp think
'John thinks that his proposal will be adopted.'

b. Mary-mo [$_{CP}$ ___ saiyoosareru-to] omotteiru
M-also be.adopted-comp think
'Mary also thinks that his/her proposal will be adoped.'

(10) a. John-un [$_{CP}$ [$_{NP}$ caki-uy ceyan]-i chaythayktoylkela-ko] sayngkakhanta (K)
J-top self-gen proposal-nom will.be.adopted-comp think
'John thinks that his proposal will be adopted.'

b. Mary-to [$_{CP}$ ___ chaythayktoylkela-ko] sayngkakhanta
M-also will.be.adopted-comp think
'Mary also thinks that his/her proposal will be adopted.'

As subjects cannot be elided by VP-deletion, Oku proposed that an argument can be elided directly in Japanese. Kim (1999) reached the same conclusion for Korean based on examination of different kinds of data.

Oku argued further for the LF copying analysis of argument ellipsis, extending Bošković and Takahashi's (1998) analysis of scrambling. Shinohara (2006) provides empirical evidence for this, to which we now turn. The crucial paradigm is shown in (11).[1]

(11) a. Taroo-wa [Hanako-ga sono hon-o motteiru-ka] kiita
T-top H-nom that book-acc have-Q asked
Ziroo-mo ~~[Hanako-ga sono hon-o motteiru-ka]~~ kiita
Z-also H-nom that book-acc have-Q asked
'Taroo asked if Hanako has the book. Ziroo also asked if Hanako has the book.'

b. Sono hon-o$_i$ Taroo-wa [Hanako-ga t_i motteiru-ka] kiita
that book-acc T-top H-nom have-Q asked
*Sono hon-o$_i$ Ziroo-mo ~~[Hanako-ga t_i motteiru-ka]~~ kiita
that book-acc Z-also H-nom have-Q asked

c. Taroo-wa [Hanako-ga sono hon-o motteiru-ka] kiita
T-top H-nom that book-acc have-Q asked
*Sono hon-o$_i$ Ziroo-mo ~~[Hanako-ga t_i motteiru-ka]~~ kiita
that book-acc Z-also H-nom have-Q asked

d. Sono hon-o$_i$ Taroo-wa [Hanako-ga t_i motteiru-ka] kiita
that book-acc T-top H-nom have-Q asked
Ziroo-mo ~~[Hanako-ga sono hon-o motteiru-ka]~~ kiita
Z-also H-nom that book-acc have-Q asked

(11a) shows that a complement CP can be elided. Given that argument ellipsis applies to any argument, this is expected. (11b), on the other hand, is somewhat surprising. It shows that the CP

[1] The same paradigm obtains in Korean, as shown below.

(i) a. Chelswu-nun [Yenghi-ka ku chayk-ul ilkessnun-ci] mwulessta
C-top Y-nom that book-acc read-Q asked
Minswu-to ~~[Yenghi-ka ku chayk-ul ilkessnun-ci]~~ mwulessta
M-also Y-nom that book-acc read-Q asked
'Chelsu asked if Yenghi read the book. Minsu also asked if Yenghi read the book.'

b. Ku chayk-ul$_i$ Chelswu-nun [Yenghi-ka t_i ilkessnun-ci] mwulessta
that book-acc C-top Y-nom read-Q asked
*Ku chayk-ul$_i$ Minswu-to ~~[Yenghi-ka t_i ilkessnun-ci]~~ mwulessta
that book-acc M-also Y-nom read-Q asked

c. Chelswu-nun [Yenghi-ka ku chayk-ul ilkessnun-ci] mwulessta
C-top Y-nom that book-acc read-Q asked
*Ku chayk-ul$_i$ Minswu-to ~~[Yenghi-ka t_i ilkessnun-ci]~~ mwulessta
that book-acc M-also Y-nom read-Q asked

d. Ku chayk-ul$_i$ Chelswu-nun [Yenghi-ka t_i ilkessnun-ci] mwulessta
that book-acc C-top Y-nom read-Q asked
Minswu-to ~~[Yenghi-ka ku chayk-ul ilkessnun-ci]~~ mwulessta
M-also Y-nom that book-acc read-Q asked

cannot be elided when the embedded object is scrambled out of the target CP as well as the antecedent CP. (11c) indicates that the result is the same when scrambling takes place only in the target CP. (11d) represents another interesting case. A complement CP can be elided even when the embedded object is scrambled out of the antecedent CP as long as no scrambling takes place in the target CP.

Shinohara (2006) points out that the PF deletion analysis fails to predict this state of affairs. For example, the elided CP and its antecedent are identical in (11b), and nothing seems to prevent PF deletion. Then, she argues that the paradigm in (11) is exactly what we expect with LF copying. There are two crucial ingredients in her analysis. First, LF copying is an LF operation, and hence, what is copied at the ellipsis site is an LF object, as discussed in detail in Williams 1977. Second, scrambling is semantically vacuous in the sense that it is not represented at LF. This hypothesis was originally argued for in Saito 1989 on the basis of examples such as (12).

(12) a. Taroo-ga [Hanako-ga nani-o katta ka] siritagatteiru (koto)
T-nom H-nom what-acc bought Q want.to.know fact
'(the fact that) Taroo wants to know what Hanako bought'

b. Nani-o$_i$ Taroo-ga [Hanako-ga t_i katta ka] siritagatteiru (koto)
what-acc T-nom H-nom bought Q want.to.know fact

(12a) is a straightforward example with an embedded wh-question. In (12b), the wh-phrase *nani* 'what' is scrambled out of the embedded CP, and the example is grammatical with the same interpretation as (12a). As the wh-phrase is part of the embedded wh-question, it must belong to the embedded CP for the example to be properly interpreted. Then, the grammaticality of (12b) suggests that scrambling is not represented at LF.[2]

Given these assumptions, the LF copying analysis correctly predicts the ungrammaticality of (11b). First, given that scrambling is ignored in LF, the LF representation of the antecedent clause is as in (13).

(13) Taroo-wa [$_{CP}$ Hanako-ga sono hon-o motteiru-ka] kiita
T-top H-nom that book-acc have-Q asked

The embedded CP in (13) is the LF object that constitutes the antecedent for the ellipsis in the second clause. We then copy it into the ellipsis site to interpret the second clause as in (14).

(14) Sono hon-o Ziroo-mo *[$_{CP}$ Hanako-ga sono hon-o motteiru-ka]* kiita
that book-acc Z-also H-nom that book-acc have-Q asked

The resulting LF representation is clearly ill-formed as it contains two instances of the embedded object. The LF copying analysis also straightforwardly predicts the grammaticality of (11d). The antecedent clause has the same LF representation as in the case of (11b), namely, (13). The LF copying of the embedded CP into ellipsis site yields (15) in this case.

[2] See Saito 1989 and subsequent works, especially Saito 2005, for more detailed discussion on this. We assume for ease of exposition that scrambling is simply ignored in the LF representation. But Shinohara's analysis is consistent with more recent accounts of the semantic vacuity of scrambling, for example, with the account proposed in Saito 2005. An explicit discussion on this point can be found in Takita 2008.

(15) Ziroo-mo *[$_{CP}$ Hanako-ga sono hon-o motteiru-ka]* kiita
Z-also H-nom that book-acc have-Q asked

Then, (11d) should be grammatical as it is interpreted exactly like (11a).

Shinohara thus concludes that the paradigm in (11) constitutes evidence for the LF copying analysis of argument ellipsis. We present additional evidence for this in the following sections.

3 "Sluicing" in Japanese and Korean

We turn to "sluicing" in this section. In Section 3.1, we briefly discuss Takahashi's (1994) original analysis of the phenomenon. Then, in Section 3.2, we develop Nishiyama, Whitman and Yi's (1996) analysis, which is based on cleft structure, and argue that the phenomenon should be treated as an instance of argument ellipsis. More specifically, we argue that the "sluicing" structure is derived by applying argument ellipsis to a cleft sentence and eliding the CP subject that expresses the presupposition. In the course of this discussion, we demonstrate that the proposed analysis applies equally well to Japanese and Korean. Finally, in Section 3.3, we take up a case in Korean pointed out by Sohn (2000) where "sluicing" is allowed despite the fact that the corresponding cleft structure is ungrammatical. We show that this discrepancy is expected given the LF copying analysis.

3.1 Takahashi's (1994) Sluicing Analysis

Takahashi first points out that examples such as (16) are not only grammatical but allow sloppy interpretation. The Korean counterpart of (16) is shown in (17).

(16) John-wa [$_{CP}$ zibun-ga naze sikarareta-ka] wakatteinai-ga, (J)
J-top self-nom why was.scolded-Q not.know-though
Mary-wa [<u>naze-(da)-ka</u>] wakatteiru
M-top why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why (he/she was scolded).'

(17) John-un [$_{CP}$ caki-ka way honnassnu-nci] molu-ciman, (K)
J-top self-nom why was.scolded-Q not.know-though
Mary-nun [<u>way-i-nci</u>] anta
M-top why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why (he/she was scolded).'

The underlined part consists only of a wh-phrase, a copula (which is optional in Japanese) and a question complementizer, and yet, expresses the same content as the preceding embedded full CP. Further, the availability of sloppy interpretation suggests that ellipsis is involved in the derivation of this sequence. Takahashi then proposed to analyze it as an instance of sluicing as indicated in (18), adopting Kuroda's (1988) hypothesis that Japanese has optional wh-movement.

(18) a. [$_{CP}$ naze$_i$ [$_{C'}$ ~~[$_{TP}$ zibun-ga t_i sikarareta]~~ [$_C$ ka]]] (for (16))
b. [$_{CP}$ way$_i$ [$_{C'}$ ~~[$_{TP}$ caki-ka t_i honnassnu]~~ [$_C$ nci]]] (for (17))

The wh-phrase *naze/way* is moved to CP Spec and the remnant TP is elided. The analysis is quite attractive as it accounts for (16)-(17) in exactly the same way as the English (19).

(19) John doesn't know [$_{CP}$ why$_i$ [$_{TP}$ he was scolded t_i]], but Mary knows
[$_{CP}$ why$_i$ ~~[$_{TP}$ she was scolded t_i]~~]

At the same time, Takahashi notes one outstanding problem with this analysis, that is, the optional presence of copula in (16). There is no position for this element in the structure in (18a). This led him to consider the alternative analysis illustrated in (20).

(20) a. John-wa [$_{CP}$ zibun-ga naze sikarareta-ka] wakatteinai-ga, (J)
J-top self-nom why was.scolded-Q not.know-though
Mary-wa [$_{CP}$ (sore-ga) naze-(da)-ka] wakateiru
M-top it-nom why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why it is.'

b. John-un [$_{CP}$ caki-ka way honnassnu-nci] molu-ciman, (K)
J-top self-nom why was.scolded-Q not.know-though
Mary-nun [$_{CP}$ (ku kes-i) way-i-nci] anta
M-top it-nom why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why it is.'

The underlined part is a regular question CP with a wh-phrase in-situ and a pronominal subject. As the copula is optional in Japanese and obligatory in Korean, we obtain precisely the desired string when the pronominal subject is *pro* instead of an overt pronoun. However, Takahashi rejects this analysis on the basis that (20a) does not allow sloppy interpretation when the subject pronoun is overt. This observation carries over to the Korean (20b) as well. This is expected as we know that sloppy interpretation is possible with ellipsis but not with pronouns, as (21) shows.

(21) a. John loves his mother, and Mary does, too (= Mary loves his/her mother)
b. John loves his mother, and Mary loves her, too (= Mary loves his mother)

Then, (20a-b) should not allow sloppy interpretation even when the subject is *pro* because *pro* is nothing but a pronoun without phonetic content. Hence, the analysis fails to account for the availability of sloppy interpretation in (16)-(17). With this consideration, Takahashi maintained the sluicing analysis illustrated in (18), leaving the occurrence of copula as a problem.[3]

[3] The problem posed by the copula is more serious in Korean as its occurrence is obligatory. Kim (1997) and Park (2005) try to maintain the essence of Takahashi's analysis by assuming that the copula heads a focus projection and making sluicing apply to the TP complement of this focus head, as in (i).

(i) [$_{CP}$ [$_{C'}$ [$_{FP}$ way$_i$ [$_{F'}$ ~~[$_{TP}$ caki-ka t_i honnassnu]~~ [$_F$ i]]] [$_C$ nci]]]

The disadvantage of this analysis is that ellipsis must be obligatory. The string in (i) is ungrammatical when the TP is overtly expressed as shown in (ii).

(ii) a. * [$_{CP}$ way caki-ka honnassnu-i-nci] (K)
b. * [$_{CP}$ naze zibun-ga sikarareta-da-ka] (J)

3.2 Nishiyama, et al. (1996) and Saito's (2004) Cleft-Based Analysis

Nishiyama, et al. (1996) reexamine "sluicing" in Japanese and Korean, and present new evidence for Takahashi's alternative analysis. For example, they discuss examples such as (22)-(23), which cannot be derived by sluicing but would receive an analysis with a *pro* subject.

(22) John-ga dareka-kara tegami-o uketotta-ga, (J)
J-nom someone-from letter-acc received-though
boku-wa [Mary-kara-(da)-kadooka]-(wa) wakaranai
I-top M-from-cop-whether-top not.know
'John received a letter from someone, but I don't know whether it was from Mary.'

(23) John-i nwukwunka-lopwuthe pyenci-lul patass-ciman, (K)
J-nom someone-from letter-acc received-though
na-nun [Mary-lopwuthe-i-nci]-nun molunta
I-top M-from-cop-Q-top not.know
'John received a letter from someone, but I don't know whether it was from Mary.'

The underlined part of these examples contains a non-wh PP and a question complementizer that is interpreted as 'whether'. These elements cannot be the remnants in sluicing, as (24) shows.

(24) *John received a letter from someone, but I don't know whether from Mary

On the other hand, the examples are grammatical even with overt pronominal subjects corresponding to 'it', as illustrated in (25)-(26).

(25) John-ga dareka-kara tegami-o uketotta-ga, (J)
J-nom someone-from letter-acc received-though
boku-wa [$_{CP}$ (sore-ga) Mary-kara-(da)-kadooka]-(wa) wakaranai
I-top it-nom M-from-cop-whether-top not.know
'John received a letter from someone, but I don't know whether it was from Mary.'

(26) John-i nwukwunka-lopwuthe pyenci-lul patass-ciman, (K)
J-nom someone-from letter-acc received-though
na-nun [$_{CP}$ (ku kes-i) Mary-lopwuthe-i-nci]-nun molunta
I-top it-nom M-from-cop-Q-top not.know
'John received a letter from someone, but I don't know whether it was from Mary.'

It is then clear that (22) and (23) have the structures in (25) and (26) respectively with *pro* subjects. This confirms that (16) and (17) can be assigned the structures in (20a-b).

But Nishiyama, et al. struggle with the sloppy interpretation just like Takahashi (1994). They hypothesize that (16)-(17) allow sloppy interpretation because they are related to similar examples with cleft sentences as in (27)-(28).

(27) John-wa [zibun-ga naze sikarareta-ka] wakatteinai-ga, Mary-wa (J)
J-top self-nom why was.scolded-Q not.know-though M-top
[$_{CP}$ [$_{TP}$ [$_{CP}$ Op$_i$ [$_{TP}$ zibun-ga t_i sikarareta] no]-ga naze$_i$-(da)]-ka] wakatteiru
self-nom was.scolded comp-nom why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why it is that she was scolded.'

(28) John-un [caki-ka way honnassnu-nci] molu-ciman, Mary-nun (K)
J-top self-nom why was.scolded-Q not.know-though M-top
[$_{CP}$ [$_{TP}$ [$_{CP}$ Op$_i$ [$_{TP}$ caki-ga t_i honnan] kes]-i way$_i$-i]-nci] anta
self-nom was.scolded comp-nom why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why it is that she was scolded.'

In these examples, the embedded CP of the second sentence is a fully spelled out cleft sentence. The second sentence is interpreted as 'Mary knows why (it is that) she was scolded' because *zibun/caki* 'self' is overt and takes *Mary* as its antecedent. Nishiyama, et al. (1996), then, suggest that sloppy interpretation obtains when the underlined CP, that is, the CP that expresses the presupposition in cleft structure, is turned into *pro*. The idea is that the *pro* subjects in (20a-b) can stand for the underlined CPs in (27)-(28), and in this case, the examples are interpreted with sloppy interpretation. This begs the question, however, because sloppy interpretation is impossible with the overt *sore/ku kes* 'it' as Takahashi (1994) observed. Nishiyama, et al. stipulate here that only phonetically null *pro* yields sloppy interpretation.

Although Nishiyama, et al. did not achieve a principled account for the sloppy interpretation of the "sluicing" examples, they made the problem very clear. When the underlined CPs in (27)-(28) are phonetically null, sloppy interpretation obtains. On the other hand, when overt pronouns appear in their places, strict reading is forced. And Saito (2004) pointed out that the argument ellipsis hypothesis of Kim 1999 and Oku 1998 provides a direct solution to this problem. For Nishiyama, et al. 1996, when the underlined CPs in (27)-(28) are null, they had to be *pro*. But given the argument ellipsis hypothesis, the relevant structure can be derived with the ellipsis of those CPs. This is illustrated in (29).[4]

(29) a. Mary-wa [~~[$_{CP}$ Op$_i$ [$_{TP}$ zibun-ga t_i sikarareta] no]-ga~~ naze$_i$-(da)-ka] wakatteiru
M-top self-nom was.scolded comp-nom why-cop-Q know

b. Mary-nun [~~[$_{CP}$ Op$_i$ [$_{TP}$ caki-ka t_i honnan] kes]-i~~ way$_i$-i-nci] anta
M-top self-nom was.scolded comp-nom why-cop-Q know

Takahashi's (1994) original examples in (16)-(17), repeated in (30)-(31), are then ambiguous in structure.

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[4] Here, some adjustments are necessary. The LF of the antecedent CP in (27) is as in (i).

(i) [$_{CP}$ naze$_i$ [$_{TP}$ zibun-ga t_i sikarareta] ka]
why self-nom was.scolded Q

Then, the wh-operator in CP Spec, for example, must be turned into a null operator prior to LF copying so that the resulting cleft structure can be interpreted properly. It is suggested in Saito 2004 that this can be achieved by an operation similar to "vehicle change" in the sense of Fiengo and May 1994.

(30) John-wa [$_{CP}$ zibun-ga naze sikarareta-ka] wakatteinai-ga, (J)
J-top self-nom why was.scolded-Q not.know-though
Mary-wa [naze-(da)-ka] wakatteiru
M-top why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why (he/she was scolded).'

(31) John-un [$_{CP}$ caki-ka way honnassnu-nci] molu-ciman, (K)
J-top self-nom why was.scolded-Q not.know-though
Mary-nun [way-i-nci] anta
M-top why-cop-Q know
'John doesn't know why he was scolded, but Mary knows why (he/she was scolded).'

If the subject of the underlined CP is elided as in (29), sloppy interpretation obtains. On the other hand, if the position is occupied by *pro*, strict reading is forced.

Saito (2004) discusses only Japanese data, but it was shown above that the argument applies equally well to Korean. We conclude then that "sluicing" is the same phenomenon in Japanese and Korean, and that it results from argument ellipsis applied to the subject CP in cleft structure. According to this analysis, cleft structure provides the necessary "source" for sluicing. That is, an example of "sluicing" is nothing but a cleft sentence with an elided CP subject. We would expect then that for any "sluicing" example, there is a corresponding well-formed cleft structure. In the following subsection, we discuss this parallelism. We show that the prediction is borne out at least in part, and when there is a discrepancy, it is explained by the LF copying analysis of argument ellipsis.

3.3 On the Parallelism between "Sluicing" and Cleft in Japanese and Korean

First, "sluicing" shares some unique properties of Japanese/Korean clefts. For example, it is known that cleft sentences in Japanese/Korean can have multiple foci. "Sluicing" also allows multiple remnants. This is illustrated in (32)-(35). (32)-(33) are examples of clefts with multiple foci, and (34)-(35) are "sluicing" examples with multiple remnants.

(32) John-ga supai-nituite hookoku-o sita no-wa howaitohausu-de daitooryoo-ni-da (J)
J-nom spy-about report-acc do comp-top White House-at president-dat-cop
'*Lit.* It was at the White House to the President that John reported about a spy.'

(33) John-i suphai-eytayhayse poko-lul han kes-un payakkwan-eyse (K)
J-nom spy-about report-acc do comp-top White House-at
taythonglyeng-eykey-i-ta
president-to-cop-dec
'*Lit.* It was at the White House to the President that John reported about a spy.'

(34) John-ga supai-nituite dokoka-de dareka-ni hookoku-o sita (J)
J-nom spy-about somewhere-at someone-dat report-acc did
Demo doko-de dare-ni-(da)-ka-(wa) wakaranai
But where-at who-dat-cop-Q-top not.know
'*Lit.* John delivered a report about a spy to someone somewhere. But I don't know where and to whom.'

(35) John-i suphai-eytayhayse etieysenka nukunka-eykey poko-lul hayssta (K)
J-nom spy-about somewhere someone-dat report-acc did
Haciman eti-eyse nuku-eykey-i-essnu-nci-nun molunta
But where-at who-dat-cop-past-Q-top not.know
'*Lit.* John delivered a report about a spy to someone somewhere. But I don't know where and to whom.'

In this context, Sohn (2000) presents an interesting discussion that compares the distributions of "sluicing" and cleft in Korean. While pursuing Nishiyama et al.'s (1996) analysis, he observes cases where "sluicing" is allowed but cleft is not. Some of his examples are listed in (36) and (37).

(36) a. John-i chayk-ul sey-kwen sassta
J-nom book-acc three-CL bought
'John bought three books.'

b. *John-i chayk-ul san kes-un sey-kwen-i-ta
J-nom book-acc bought comp-top three-CL-cop-dec
'*Lit.* It is three pieces that John bought books.'

c. John-i chayk-ul mwet-kwen sass-tako tuless-ciman,
J-nom book-acc some-CL bought-comp heard-though
na-nun mwet-kwen-i-nci-nun molunta
I-top how.many-CL-cop-Q-top not.know
'I heard that John bought some books, but I don't know how many.'

(37) a. John-i Mary-lul oyn ccok son-ul ttayliessta
J-nom M-acc left side hand-acc hit
'John hit Mary on the left hand.'

b. *John-i Mary-lul ttalin kes-un oyn ccok son-i-ta
J-nom M-acc hit comp-top left side hand-cop-dec
'It is on the left hand that John hit Mary.'

c. John-i Mary-lul han ccok son-ul ttayliessnu-ntey,
J-nom M-acc one side hand-acc hit-though
na-nun enu ccok son-i-nci alko sipta
I-top which side hand-cop-Q know want
'John hit Mary on one hand, but I want to know which hand.'

(36a) contains a floating numeral quantifier, *sey-kwen* 'three-volume'. (36b) shows that it is impossible to cleft the quantifier, stranding the associate NP. (36c), on the other hand, indicates that a numeral quantifier can be a remnant in the "sluicing" construction. (37a) is a double-accusative sentence, which is observed in Korean but not in Japanese. (37b) shows that the second, body-part accusative NP cannot be focused in cleft structure, but this NP can be a remnant in "sluicing" structure as observed in (37c).

These contrasts do not pose immediate problems because according to our analysis, the "sluicing" examples have two distinct sources when sloppy interpretation is not at issue. For example, the underlined part of (37c) may be derived from cleft structure by ellipsis of the CP

subject as in (38a), or it may simply have a *pro* subject as in (38b).

(38) a. [$_{CP}$ ~~John i Mary lul ttalin kes] i~~ enu ccok son-i-nci
J-nom M-acc hit comp-nom which side hand-cop-Q

b. (ku kes-i) enu ccok son-i-nci
it-nom which side hand-cop-Q

If (37c) is derived as in (38a), its contrast with (37b) requires an explanation. On the other hand, if it has the structure in (38b), its grammaticality has nothing to do with the cleft sentence in (37b).[5] And in fact, (36c) and (37c) are both grammatical with an overt pronoun *ku kes-i* 'it-nom' as shown in (39).

(39) a. John-i chayk-ul mwet-kwen sass-tako tuless-ciman,
J-nom book-acc some-CL bought-comp heard-though
na-nun (ku kes-i) mwet-kwen-i-nci-nun molunta
I-top it-nom how.many-CL-cop-Q-top not.know
'I heard that John bought some books, but I don't know how many that was.'

b. John-i Mary-lul han ccok son-ul ttayliesstanun-tey,
J-nom M-acc one side hand-acc hit-though
na-nun (ku kes-i) enu ccok son-i-nci alko sipta
I-top it-nom which side hand-cop-Q know want
'John hit Mary on one hand, but I want to know which hand that was.'

Hence, we may assume that (36c) and (37c) are not related to cleft structures but have *pro* subjects.

However, it is possible to construct examples similar to (37c) that must be derived from cleft structures. Two such examples are shown in (40).

(40) a. John-un caki-uy atul-ul enu phal-ul ttayliessnu-nci kiekha-ciman,
J-top self-gen son-acc which arm-acc hit-Q remember-though
Mary-nun enu phal-i-nci kiekha-ci mothanta
M-top which arm-cop-Q remember-CI unable
'John remembers which arm of his son he hit, but Mary doesn't remember which arm.'

b. John-un caki-uy atul-i enu phal-i ki-nci al-ciman,
J-top self-gen son-nom which arm-nom long-Q know-though
Mary-nun enu phal-i-nci molunta
M-top which arm-cop-Q not.know
'John knows which of his son's arm is long, but Mary doesn't know which one.'

These examples allow sloppy interpretation. Thus, (40a), for example, can mean 'Mary doesn't remember which arm of her son she hit'. This example, then, must be derivable from a cleft structure as in (41).

[5] The pronoun may or may not stand for the CP subject in cleft structure. In fact, when a pronoun appears, it is far from clear what it refers to. See Sohn 2000 and Saito 2004 for relevant discussion.

(41) Mary-nun [$_{CP}$ [$_{CP}$ ~~*pro* caki-uy atul-ul ttaylin kes] i~~ enu phal-i-nci] kiekha-ci
M-top self-gen son-acc hit comp-nom which arm-cop-Q remember
mothanta
unable

But we have seen in (37b) that a cleft sentence is ungrammatical when the body-part object is focused. Hence, there is a genuine discrepancy between cleft and "sluicing" here: "sluicing" is allowed despite the fact that its "source" is ungrammatical.

This discrepancy, however, is not surprising under the LF copying analysis of argument ellipsis. Note first that the antecedent CP in (40a) is perfectly grammatical with the following LF, formed either by covert wh-movement or 'unselective binding' in the sense of Tsai 1994:

(42) [$_{CP}$ enu phal-ul$_i$ [$_{TP}$ *pro* caki-uy atul-ul t_i ttayliessnu] nci]]
which arm-acc self-gen son-acc hit Q

The contrast between (37b) and the first sentence of (40a) in fact shows that the former is ruled out by a constraint on overt movement. Then, the LF in (42) can be copied into the ellipsis site in (41) and the proper interpretation obtains.[6] The grammaticality of (40a) is thus expected under the LF copying analysis because it does not require overt movement of the body-part NP over the higher accusative phrase. The observed discrepancy between cleft and "sluicing" poses no problem for the analysis entertained here.

This account for the grammaticality of (40) provides additional evidence for the LF copying analysis of argument ellipsis. It is in fact quite similar in form to the analysis of the absence of island effects in examples of sluicing, presented in Chung, Ladusaw and McCloskey 1995. They discuss examples such as (43), originally noted by Ross (1969).

(43) The administration has issued a statement that it is willing to meet with one of the student groups, but I am not sure [$_{CP}$ which one$_i$ [$_{TP}$ ~~it has issued a statement that it is willing to meet with t_i~~]]

The example is ungrammatical without sluicing as the wh-phrase *which one* is extracted out of a complex NP. Yet, it is grammatical with the ellipsis. Chung, et al. takes this as evidence against the PF deletion analysis on the assumption that Subjacency is a condition on movement. If (43) is derived by PF deletion, the wh-phrase must move out of the complex NP in syntax in violation of Subjacency. Then, they go on to present an LF copying analysis, adapting Heim's (1982) proposal that indefinites such as *one of the student groups* are interpreted as variables at LF. With this proposal, (43) receives proper interpretation when the first sentence is copied into the ellipsis site.

For examples like (43), alternative analyses have been proposed under the PF deletion hypothesis. For example, Fox and Lasnik (2003) argue that Subjacency violations are checked at PF and this is why it does not obtain in the case of (43). (See also Merchant 2001 for relevant discussion.) A similar analysis may be possible for (40). But for this to be tenable, it must be shown that the ban on the movement of the body-part NP over the higher accusative phrase observed in (37b) is plausibly a PF phenomenon. It remains to be seen whether this is possible.

[6] That is, with the adjustment mentioned in Fn.4.

4 N'-Ellipsis and Genitive Insertion

We saw in the preceding section that "sluicing" applies in the same way in Japanese and Korean. This is expected if "sluicing" is after all a kind of argument ellipsis as we argued. In this section, we discuss a difference between the two languages: N'-ellipsis is observed in Japanese but not in Korean. In Section 4.1, we discuss the distributions of the genitive markers and show that noun phrase structures are quite similar in the two languages. In Section 4.2, we propose a parameterization in the genitive insertion rule and suggest an account for the absence of N'-ellipsis in Korean. Then, we present an argument for the LF copying analysis of N'-ellipsis.

4.1 Noun Phrases in Japanese and Korean

The similarity of Japanese and Korean noun phrase structures can be best illustrated with the distributions of the genitive or "modifying" markers. It is well known that *no* is inserted after any NP or PP in sister relation to a nominal projection in Japanese. Some examples are shown below in (44).

(44) a. Haruki-no kuruma (J)
H-gen car
'Haruki's car'

b. Haruki-to-no intabyuu
H-with-gen interview
'an interview with Haruki'

c. yuubokumin-no tosi-no hakai
nomads-gen city-gen destruction
'the nomads' destruction of the city'

d. Taroo-no yooroppa-e-no ryokoo
T-gen Europe-to-gen trip
'Taroo's trip to Europe'

These examples indicate that the distribution of *no* is much wider than *'s* in English. It follows a PP in (44b), and it is attached to both the subject and the object in (44c). In (44d), it accompanies the subject and a complement PP. Given this, it has been widely assumed that *no* is inserted into the structure by a rule of the following kind:

(45) Mod Insertion (Kitagawa and Ross 1982)
$[_{NP} \ldots XP\ N^{\alpha}] \rightarrow [_{NP} \ldots XP\ Mod\ N^{\alpha}]$, where X is [-V] and Mod = *no*.

The Korean counterpart of *no*, *uy*, has basically the same distribution. This is shown in (46).

(46) a. Harukhi-uy cha (K)
H-gen car
'Haruki's car'

b. Harukhi-wa-uy intebyu
H-with-gen interview
'an interview with Haruki'

c. yumokmin-uy tosi-uy phagoy
nomads-gen city-gen destruction
'the nomads' destruction of the city'

d. Chelswu-uy yurep-ulo-uy yehayng
C-gen Europe-to-gen trip
'Chelsu's trip to Europe'

The Mod Insertion rule in (45), then, can be generalized to Korean, the only difference being the phonetic realization of the Mod marker.[7]

Despite the obvious similarities like this, the two languages differ with respect to N'-ellipsis as noted above. Japanese allows it as discussed in detail in Saito and Murasugi 1990, but Korean does not. Another pair of examples is provided in (47)-(48).

(47) [Hanako-no sinri-no tuikyuu]-wa [Taroo-no ~~sinri-no tuikyuu~~]-yorimo (J)
H-gen truth-gen pursuit-top T-gen truth-gen pursuit-than
zyoonetutekida
is.passionate
'Hanako's pursuit of the truth is more passionate than Taroo's.'

(48) *[Chelswu-uy cinli-uy chwukwu]-nun [Yenghi-uy ~~cinli-uy chwukwu~~]-pota (K)
C-gen truth-gen pursuit-top Y-gen truth-gen pursuit-than
yelcengcekita
is.passionate
'Chelswu's pursuit of the truth is more passionate than Yenghi's.'

It is argued in Saito and Murasugi 1990 that N'-ellipsis is actually movement of an argument to DP Spec followed by deletion of the complement NP. (See also Lobeck 1990.) Then, if only arguments can move to DP Spec, as seems plausible, it is predicted that only they can be remnants in N'-ellipsis. The prediction is borne out, as illustrated in (49).

(49) a. [Rooma-no hakai]-wa [Kyooto-no ~~hakai~~]-yorimo hisandatta
R-gen destruction-top K-gen destruction-than was.miserable
'Rome's destruction was more miserable than Kyoto's.'

b. *Saikin-wa [hare-no hi]-ga [ame-no ~~hi~~]-yorimo ooi
recently-top fine-gen day-nom rain-gen day-than plentiful
'Recently, there are more clear days than rainy days.'

[7] It should be noted here that the presence of *uy*, unlike *no*, is sometimes optional. For example, temporal expressions like *ecey* 'yesterday' and *onul* 'today' can appear without *uy*, as we will see below. Further, *uy* on some argument NPs need not be overtly realized when it is adjacent to the head noun. See An 2009 for detailed discussion on this.

c. *Hanako-wa issyuukan-ni [san-satu-no hon]-ga yomeru-ga, Taroo-wa
H-top one.week-in three-cl.-gen book-nom can.read-though T-top
[go-satu-no ~~hon~~]-ga yomeru
five-cl.-gen book-nom can.read
'Hanako can read three books in a week, but Taroo can read five books.'

The ellipsis site follows the subject in (47) and the object in (49a). On the other hand, the remnants are modifiers in the ungrammatical (49b-c). Note that these examples are fine without the ellipsis. This is expected because the Mod Insertion rule applies to modifiers as well as arguments as long as they are NPs (DPs) or PPs. Yet, since modifiers cannot move to DP Spec, they cannot trigger N'-ellipsis.

If arguments can move to DP Spec and trigger N'-ellipsis in Japanese, it is mysterious why this is impossible in Korean. Given the similarity between the two languages, this difference is likely to be due to a micro-parameter. In the following section, we propose a parameterization in the Mod Insertion rule on independent grounds, and argue that it explains the absence of N'-ellipsis in Korean.

4.2 An Analysis for the Absence of N'-ellipsis in Korean

Another interesting difference between Japanese and Korean can be found in the peculiar construction shown in (50).

(50) a. [kinoo-no [Tani kyoozyu-no koogi]]-to [kyoo-no [Kan kyoozyu-no koogi]] (J)
yesterday-gen Prof. Tani-gen lecture-and today-gen Prof. Kan-gen lecture
'Prof. Tanaka's lecture yesterday and Prof. Yamada's lecture today'

b. [kinoo-no [Tani kyoozyu __]]-to [kyoo-no [Kan kyoozyu-no koogi]]
yesterday-gen Prof. Tani -and today-gen Prof. Kan-gen lecture

(50a) is a normal conjoined NP. In (50b), the head noun and the preceding *no* are missing from the first conjunct. Yet, the example is grammatical and somehow receives the same interpretation as (50a). And interestingly, the Korean counterpart of (50b) is ungrammatical as shown in (51b).

(51) a. [ecey-uy [Kim kyoswu-uy kanguy]]-wa [onul-uy [Pak kyoswu-uy kanguy]] (K)
yesterday-gen Prof. Kim-gen lecture-and today-gen Prof. Park-gen lecture
'Prof. Kim's lecture yesterday and Prof. Park's lecture today'

b. *[ecey-uy [Kim kyoswu __]]-wa [onul-uy [Pak kyoswu-uy kanguy]]
yesterday-gen Prof. Kim -and today-gen Prof. Park-gen lecture

(51b), like (50b), can be interpreted as a conjunction of a person and a lecture, but it cannot have the intended reading, that is, a conjunction of two lectures.

Although we do not have an analysis for this peculiar construction, the source of the

ungrammaticality of (51b) seems clear. As mentioned in Fn.7, temporal expressions like *ecey* 'yesterday' and *onul* 'today' need not be followed by *uy*. An example is given in (52).

(52) ecey(-uy) Kim kyoswu-uy kanguy
yesterday-gen Prof. Kim-gen lecture
'Prof. Kim's lecture yesterday'

And (51b) becomes grammatical with the intended reading when *uy* is omitted, as observed in (53).

(53) [ecey [Kim kyoswu __]]-wa [onul [Pak kyoswu-uy kanguy]]
yesterday Prof. Kim -and today Prof. Park-gen lecture
'Prof. Kim's lecture yesterday and Prof. Park's lecture today'

The ungrammaticality of (51b), then, must be due to a failure of *uy*-insertion. As the main difference between (51a) and (51b) is that the head noun is missing in the latter, we propose that *uy* can be inserted only when the head noun is overt. This leads to the parameterization of the Mod Insertion Rule in (54).

(54) Mod Insertion (revised)
$[_{YP} \ldots XP\ Y^n] \rightarrow [_{YP} \ldots XP\text{-}Mod\ Y^n]$ (Mod = *no* in Japanese and *uy* in Korean.)
where (i) Y = N or D, X is [-V], and
(ii) Y is overt. (Only in Korean.)

The rule states that Mod insertion requires the head noun to be overt in Korean while there is no such requirement in Japanese.

The revised rule in (54) directly accounts for the absence of N'-ellipsis in Korean. Let us consider the relevant part of (48), shown in (55).

(55) *[Yenghi-uy ~~cinli-uy chwukwu~~]
Y-gen truth-gen pursuit

Given (54), *uy* cannot be inserted after the subject *Yenghi*. This is so because the head noun is elided together with the object. (55) is then ungrammatical for the same reason as (51b). Note here that *uy* is required on the subject in (55). The example is ungrammatical without *uy* even in the absence of N'-ellipsis, as shown in (56).

(56) [Yenghi*(-uy) cinli-uy chwukwu]]
Y-gen truth-gen pursuit

Thus, unlike the case of (53), we cannot save (55) by simply omitting *uy* on the remnant. On the other hand, the Japanese counterpart of (55) is grammatical for the same reason as (50b). The language allows the insertion of *no* even when the head noun is not overt.

So far, we proposed the parameterization of Mod Insertion in (54), and argued that it explains the absence of N'-ellipsis in Korean as well as its presence in Japanese. This analysis, if correct, has an implication for the analysis of N'-ellipsis itself. Note first that the material following *uy* can be null in the so-called right-node raising examples. Examples from Japanese and Korean are provided in (57)-(58).

(57) John-wa [$_{CP}$ [Mary(-no) ~~otoosan] -ga byookida-to] omoi~~, sosite (J)
J-top M-gen father-nom sick-comp think and
Tom-wa [$_{CP}$ [Susan-no otoosan]-ga byookida-to] omoteiru
T-top S-gen father-nom sick-comp think
'John thinks that Mary's father is sick, and Tom thinks that Susan's father is sick.'

(58) John-un [$_{CP}$ [Mary(-uy) ~~apeci] -ka aphu-tako] sayngkakhanta~~, kuliko (K)
J-top M-gen father-nom sick-comp think and
Tom-un [$_{CP}$ [Susan-uy apeci]-ka aphu-tako] sayngkakhanta
T-top S-gen father-nom sick-comp think
'John thinks that Mary's father is sick, and Tom thinks that Susan's father is sick.'

Right-node raising takes place with the "sentential conjunction marker," *sosite/kuliko* 'and', unlike the peculiar construction without a nominal head observed in (50b) and (53), which has the "constituent conjunction marker," *to/wa* 'and'.

An (2007) discusses right-node raising in detail and presents a few arguments that it involves PF deletion. One of them is based on the fact that it is insensitive to constituent structure. In (57)-(58), for example, the deleted material clearly does not form a constituent. In this respect also, it differs from the construction in (50b) and (53). (59) and (60) constitute the relevant minimal pair in Korean.

(59) [Ecey(-uy) Kim kyoswu(-uy) ___], kuliko [onul-(uy) [Pak kyoswu-uy apeci]-uy
yesterday-gen Prof. Kim-gen and today-gen Prof. Park-gen father-gen
kanguy]-nun twul ta caymissessta
lecture-top two all was.fun
'Prof. Kim's (father's) lecture yesterday and Prof. Park's father's lecture today were both fun.'

(60) [Ecey(*-uy) Kim kyoswu(*-uy) ___]-wa [onul [Pak kyoswu-uy apeci]-uy
yesterday-gen Prof. Kim-gen -and today Prof. Park-gen father-gen
kanguy]-nun twul ta caymissessta
lecture-top two all was.fun
'Prof. Kim's lecture yesterday and Prof. Park's father's lecture today were both fun.'

In (60) with constituent conjunction, the missing part can only be interpreted as *kanguy* 'lecture'. So the sentence is about Prof. Kim's lecture and Prof. Park's father's lecture. On the other hand, (59) with sentential conjunction is ambiguous. The missing part in this example can be interpreted as *kanguy* as in (60) or as *apeci-uy kanguy* 'father's lecture', which is not a constituent.

If right-node raising is indeed PF deletion, it is not surprising that it can delete a head noun following *uy*. Mod insertion plausibly takes place in the syntax prior to PF deletion.[8] Then, the relevant head noun is present when *uy* is inserted in (58) and (59). This, when combined with our analysis for the absence of N'-ellipsis in Korean, implies that N'-ellipsis cannot be PF deletion. We just argued that N'-ellipsis fails in Korean because the head noun is missing and hence, the

[8] Although we assumed the classical form of Mod Insertion, the Mod marker can in fact be considered a provider of a specific edge feature that is required for merger with a nominal projection. If this is the case, it must already be present when the noun phrase is constructed.

required *uy* cannot be inserted after the remnant. This is consistent with the LF copying analysis: according to this analysis, there is nothing at the ellipsis site in the syntax. But if N'-ellipsis is PF deletion, the head noun must be present when Mod insertion applies. It is then predicted incorrectly that N'-ellipsis is possible in Korean just like right-node raising is. We are thus led to the conclusion that N'-ellipsis, like argument ellipsis, is interpreted through LF copying. Right-node raising is insensitive to constituency and does not block Mod insertion in the syntax because it is PF deletion. On the other hand, the elided material is not present until LF in the case of N'-ellipsis, and consequently, Mod insertion can apply to the remnant in Japanese but not in Korean.

5 Conclusion

In this paper, we examined three kinds of ellipsis, argument ellipsis, "sluicing," and N'-ellipsis, in Japanese and Korean. On the empirical side, we argued that "sluicing" is identical in the two languages, and is derived by the application of argument ellipsis to the CP subject of a cleft sentence. Then, we proposed an analysis for the fact that N'-ellipsis is observed in Japanese but not in Korean. We argued for a parameterization of the Mod Insertion rule, repeated in (61), on independent grounds, and showed that it accounts for the difference between the two languages with respect to N'-ellipsis.

(61) Mod Insertion (revised)
$[_{YP} \ldots XP\ Y^n] \rightarrow [_{YP} \ldots XP\text{-}Mod\ Y^n]$ (Mod = *no* in Japanese and *uy* in Korean.)
where (i) Y = N or D, X is [-V], and
(ii) Y is overt. (Only in Korean.)

On the theoretical side, we presented arguments for the LF copying analysis of ellipsis throughout this paper. In Section 2, we discussed Shinahara's (2006) paradigm in (11), which provided the initial motivation for pursuing the LF copying analysis. In Section 3, we developed the discussion in Sohn 2000, and pointed out a genuine discrepancy between cleft and "sluicing." We then argued that the discrepancy is expected under the LF copying analysis. Finally, in Section 4, we compared N'-ellipsis with right-node raising and argued that their differences fall into places if the former involves LF copying and the latter PF deletion. This suggests that other types of constituent ellipsis, such as VP-ellipsis and sluicing, should be treated in the same way.

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