

Argumental Gaps in Korean*

Wooseung Lee

(Konkuk University)

Lee, Wooseung. (2014). Argumental Gaps in Korean. *The Linguistic Association of Korea Journal*, 22(1), 1-29. Arguments are frequently realized as zero in *pro*-drop languages such as Korean and Japanese. This led many to propose an analysis resorting to the *pro*-drop parameter as for null arguments. This paper revisits constructions with null arguments in Korean and then proposes that not every argumental gap is *pro* in Korean, based on novel empirical evidence that lends support to deletion analysis. Both nominal and clausal null arguments (DPs and CPs, respectively) are examined and then given a unified deletion analysis and LF interpretation through selective feature copying, which is a welcome result. Specifically, as for the newly presented examples, ellipses of DP as well as CP arguments are explained by positing an internal structure at the deletion site. LF (selective) feature copying is offered as an interpretive mechanism.

Key Words: null arguments, *pro*, deletion, internal structure, DP argument, CP argument, LF feature copying

1. Introduction

Argument ellipsis is frequently found in *pro*-drop languages such as Korean and Japanese. This has led many researchers to propose a *pro* analysis for null arguments in Korean (Ahn and Cho 2009, 2010, 2011; Moon 2010; M-K Park 1994, 2012). Others entertained a deletion analysis (S-W Kim 1999; Um 2011 for

* I am very grateful to all the audience at Workshop on Ellipsis at Dongguk University (Winter, 2013), especially Prof. Myungkwan Park, who encouraged me to participate and further develop my earlier works on argument ellipsis. I would also like to extend my deepest gratitude to anonymous reviewers for their valuable comments and questions. All the remaining errors are solely mine.

DP deletion analysis, Huang 1999; Otani and Whitman 1991 for VP ellipsis analysis). Still, the others combined these two mainstream analyses and then put forward a hybrid analysis (Park and Bae 2012, Lee 2011¹), among others). A crucial difference between the two prevailing views is that the *pro* analysis just takes every null argument as a covert counterpart of an overt pronominal, postulating *no internal structure* while the deletion analysis posits an internal structure at the ellipsis site, opening up the possibility of allowing various (feature) mismatches between the antecedent and the (deletion) target. This paper revisits this controversial issue and then proposes that the hybrid approach is indeed on the right track. We present interesting novel sets of data and then propose that even though most argumental gaps are explained by *pro*, some should be resorted to deletion operation. The rationale behind this claim is that some DP or CP argumental gaps exhibit properties that are typical of elements with an internal structure. Based on these examples, we propose that some DPs and CPs are realized as zero due to the deletion operation (at PF). Finally, we offer LF (selective) feature copying (Oku 2001) as an interpretive method.

This paper is organized as follows. Section 2 introduces earlier discussion (Huang 1984, Rizzi 1982, 1986a, Jaeggli and Safir 1989) on *pro*-drop to get a general idea on what *pro* is, focusing on the licensing and properties of *pro* and then goes over what it looks like in other languages. Then, we reconsider typology of NPs originally classified by Chomsky (1982), the feature composition of *pro* and its predictions. Section 3 introduces various intriguing phenomena that the *pro* approach does not have a good handle on. In particular, we introduce novel empirical evidence displaying various feature mismatches with respect to DP and CP argument gaps. Section 4 proposes that some argumental gaps should be explicated by deletion operation rather than by *pro*. The target of deletion is proposed to be a lexical core, which will be given a detailed

1) These two parties are similar in that they accept both *pro* and deletion operation, but they crucially diverge in the major empirical phenomena they present and the mechanism for the recovery of contents of the null arguments. Specifically, our current works (Lee 2011, *inter alia*) accept LF (selective) feature copying and hence readily deal with examples with various feature mismatches as we will see in Section 3. This paper partly extends our previous work on DP gaps by adding novel empirical phenomena regarding CP gaps. It further solidifies our original position by offering a unified analysis of both DP and CP gaps.

explanation. The deletion site is given interpretation through LF (selective) feature copying. Section 5 concludes, confirming that not every null argument is *pro*. Both *pro* and deletion operation are required to account for phrasal and clausal argumental gaps frequently attested in Korean.

2. Licensing and Properties of a *pro*

2.1. Licensing of a *pro*

Earlier researches (Rizzi 1982, 1986a) proposed that, in languages with rich agreement system, *pro* subjects are licensed by proper governors such as finite inflections. These suggest that *pro*-drop languages are those with rich agreement system. Specifically, Rizzi (1986) proposed (1), stating that *pro*-licensors are parameterized and that various languages select different licensors such as inflection, nouns and verbs etc.

- (1) The *pro*-drop parameter:
- a. *pro* is governed by X_y^0 (It is licensed under head-government)
 - b. Let X be the licensing head of an occurrence of *pro*: then *pro* has the grammatical specification of the features on X co-indexed with it (The content of *pro* is recovered through the rich agreement specification)

Huang (1984), however, proposed that *pro* is possible either in languages with rich agreement such as Italian and Hungarian or those with no agreement represented by Chinese, Korean etc. In a similar vein, Jaeggli and Safir (1989), based on the comparative research on Italian, Chinese and English, argued that morphological uniformity is essential in allowing *pro*-drop. Specifically, they proposed that languages should be uniformly distinct or uniformly the same in inflectional forms in order to license *pro*.

2.2. Properties of *pro*

This subsection reviews properties of *pro* in languages with rich agreement system. For instance, subject *pro* in Italian is equivalent to a subject pronoun.

Three null subjects in (2) are identified by the inflections as ‘they’, ‘they’ and ‘(s)he’, respectively.

- (2) a. *pro* dicono che le donne sono diventate.
pro say-3pl that the women are become
 piu indipendenti.
 more independent
 ‘They say that women have become more independent.’
- b. *pro* sono andati a Roma.
pro are-3pl gone to Rome
 ‘They went to Rome.’
- c. *pro* vuole scrivere un romanzo.
pro want-3sg write a novel
 ‘He wants to write a novel.’

Let us consider more examples in (3). The empty element in Italian (3b) has definite reference: its interpretation is like that of an overt pronoun. Specifically, it may refer to an entity in the non-linguistic context (3b), i.e. it has deictic usage, or it may be coindexed with an element in the linguistic context as in (3c), i.e. it can be linguistically bound.

- (3) a. Gianni ha parlato.
 Gianni has spoken
 ‘Gianni has spoken.’
- b. *pro* ha parlato.
 has (3 sg) spoken
 ‘He has spoken.’
- c. Gianni ha detto [CP che [IP *pro* ha parlato]].
 Gianni has said that has spoken
 ‘Gianni has said that he has spoken.’

These reveal that subject *pro* in Italian is a covert counterpart of a subject pronoun. Unlike subject *pro*, non-overt objects in Italian always have the features [plural, masculine] without specific reference and they are licensed by a lexical

verb. Hungarian is also similar to Italian in that it requires a licenser for *pro*. Interestingly, the language possesses a nominal licenser as well, which allows Hungarian pronominal possessors to be dropped as well as subjects:

- (4) Lattam az (te) anyukadat.
 saw-1st sing. the (you) mother-2nd sing.-acc.
 'I saw your mother.'

These observations led Chomsky to complete the following typology of NPs as in (5). Our main concern is marked by shading.

- (5) Typology of NPs:

Type	Overt	Non-overt
[+A, -P]	Anaphor	NP trace
[-A, +P]	pronoun	<i>pro</i>
[-A, -P]	R-expression	Wh-trace
[+A, +P]		PRO

According to the classification, pronouns and *pro* are composed of the same feature composition [-A, +P]. They diverge in that the former is visible while the latter is not. Under this proposed typology, *pro* is predicted to be an NP (or a DP in more recent views) with *no internal structure* and should be able to alternate with an overt pronoun (Polinsky and Potsdam 2002; Monahan 2003; Takita 2008; Lee and Kim 2010). This prediction, however, faces following challenges when applied to Korean grammar. Let us observe examples (6-7) a bit. All the (a)-examples of (6-7) contain *pro* while corresponding (b)-examples have an overt pronominal. Under the prediction of the feature composition of a pronoun versus *pro*, the meaning of (a)-examples should be maintained in (b)-examples, which has an overt counterpart of a covert *pro*. However, the prediction is not borne out since the original meaning of (a) is not preserved (or degraded) after the conversion, as revealed by the translation of (b)-examples.

- (6) a. [e_i calmos-ul kkaytat-kose] Cheli-ka_i sakwahay-ss-ta.
 wrong.doing-acc realize-and.then C-nom apologize-pst-decl
 'Conscious of his wrongdoing, Cheli made an apology.'
- b.*?[ku-ka_i calmos-ul kkaytat-kose] Cheli-ka_i sakwahay-ss-ta.
 he wrong.doing-acc realize-and.then C-nom apologize-pst-decl
 (Intended) 'Conscious of his wrongdoing, Cheli made an apology.'
- (7) a. [e_i hayngcin-ul ha-myense] kwunintul-i_i kwunka-lul
 march-acc do-while soldiers-nom martial.song-acc
 pwulu-ess-ta.
 sing-pst-decl
 'Marching somewhere, the soldiers sang a martial song'
- b.*? [kutul-i_i hayngcin-ul ha-myense] kwunintul-i_i
 they march-acc do-while soldiers-nom
 kwunka-lul pwulu-ess-ta.
 martial.song-acc sing-pst-decl
 (Intended) 'Marching somewhere, the soldiers sang a martial song'

Note however that these are not problems that cannot be overcome at all. It is well-known that overt pronouns in Korean cannot refer to R-expressions that occur in the *subsequent* main clause as exemplified in (b)-examples of (6-7), unlike in English²). In addition, the principles governing the restriction on where different types of NPs appear in a sentence, the binding principles in Korean seem to be different than those in English. For instance, anaphors such as 'caki' and 'casin' do not necessarily be bound within the binding domain as in (8-9).

- (8) Cheli-nun_i [caki-ka_i pan eyse il tung-ul hay-ss-ta-ko]
 Cheli-top self-nom class in get first-pst-decl-comp
 mit-nun-ta
 believe-pres-decl
 'Cheli believes that he got first in class.'

2) English allows 'backward pronominalization', i.e. the pronoun can precede its antecedent as in (ia). In this case, the pronoun should occur in a subordinate clause. Otherwise, the sentence becomes ungrammatical as in (ib).

- (i) a. When he_i looked out the window, John_i found that it was snowing.
 b. *She_i saw us, and my grandmother_i waved at us.

- (9) Cheli-nun_i [*casin-i* pan eyse il tung-ul hay-ss-ta-ko]
 Cheli-top self-nom class in get.first-pst-decl-comp
 mit-nun-ta
 believe-pres-decl
 ‘Cheli believes that he got first in class.’

The same account applies to pronouns as well. Pronouns such as ‘ku’ must be free in certain contexts in Korean (Polinsky 2007, *inter alia*):

- (10) a. Cheli-nun_i [e_i pan eyse il tung-ul hay-ss-ta-ko]
 Cheli-top class in get.first-pst-decl-comp
 mit-nun-ta
 believe-pres-decl
 ‘Cheli believes that he got first in class.’
 b. Cheli-nun_i [ku-ka_{i/j} pan eyse il tung-ul hay-ss-ta-ko]
 Cheli-top class in get.first-pst-decl-comp
 mit-nun-ta
 believe-pres-decl

In order to avoid these potential problems that can be posed by the occurrence of the gap in the subordinate position as demonstrated above in (6-10), we will employ two separate sentences, i.e. two main clauses without embedding for syntactic tests throughout this paper.

2.3. Null Arguments in Korean

Korean, as a *pro*-drop language, allows frequent drop of arguments in various sorts. First, it has non-linguistically³⁾ licensed null arguments, which is

3) Not only DP arguments but also CP arguments can be missing without linguistic antecedents as in (i).

(Context Given: Someone enters the room and says (i), noticing that they stopped talking on his entrance.)

- (i) mwue-ya... na-to _____ kwungkumha-y.
 what-be I-also be.wondering-decl

non-referential and has a discourse-bound variable interpretation. These usually occur in the object position since they are inherent and implied in the meaning of the predicator itself (Example from Lee 2013):

- (11) A: way amwuto i theyipul an ssuni?
 why anyone this table neg use-Q
 'Why is no one using this table?'
 B: achim-ey nwuka kekise ___ mek-ten-tey?
 in.the.morning who there eat-retro-decl
 'Someone was eating ___ there in the morning.'

Second, Korean allows an arbitrarily interpreted *pro*, which has generic interpretations 'we' or 'they' without the presence of the antecedent at all (Examples from Lee and Kim 2010):

- (12) ipen yelum-ey _____ swuhay-lul
 this summer-in *pro*_{arb} rain.damage-acc
 emchengnakey ip-ess-e.
 unbelievably get-pst-decl
 'This summer we/they have got a lot of damage due to heavy rain'
 (13) ku maul-eyse _____ nok-cha-lul
 the village-in *pro*_{arb} green-tea-acc
 cwulo caypayha-y.
 mainly grow-decl
 'They/we grow green tea in the village'

Third, it has linguistically licensed null arguments, which alternate with overt pronominals such as *ku* 'he' or *ku-kes* 'it' (Examples from Lee 2013):

'What's that? I am wondering (what you guys were talking about). Please tell me (what you guys were talking about).'

The missing argument can be understood as CP 'what you guys were talking about'. This is an example of a non-linguistically (or pragmatically) licensed CP argument ellipsis. As noted above, DP as well as CP arguments can be elided without involving prior locutionary acts.

- (14) Q: Nwukwu-ka ku ppang-ul mek-ess-ni?
 Who-nom the bread-acc eat-pst-Q
 'Who ate the bread?'
 A: Cheli-ka _____ mek-ess-e.
 C-nom eat-pst-decl
 'Cheli ate (the bread).'
- (15) Q: Cheli-ka mwues-ul sa-ss-ni?
 C-nom what-acc buy-pst-Q
 'What did Cheli buy?'
 A: _____ chayk-ul sa-ss-e.
 book-acc buy-pst-decl
 '(Cheli) bought a book.'
- (16) Q: Cheli-ka ku cha-lul ettehkey hay-ss-ni?
 C-nom the car-acc how do-pst-Q
 'What did Cheli do with the car?'
 A: _____ _____ phal-ass-e.
 sell-pst-decl
 '(Cheli) sold (the car).'

All argumental gaps above in (14-16) can be filled in by overt pronominals 'ku' or 'ku-kes'⁴⁾ and taken as *pro*. Interestingly, the answers in (14-16) can serve as fully acceptable utterances without preceding questions since radical *pro* drop is allowed in Korean even without linguistic antecedents (cf. Saito 2007). In other words, given appropriate contexts, *pro* can be pragmatically licensed as well. This however is not the end of the story on null arguments. We will see some interesting empirical phenomena that challenge an analysis attributing every argumental gap to *pro* drop. Specifically, we will go over examples exhibiting various types of feature mismatches between the antecedent and the gap (or the deletion target). We take this to suggest that deletion operation is responsible for the gap since it posits an internal structure at the ellipsis site, opening up the possibility of accounting for various feature mismatches. Given the purpose of this research, all the examples presented earlier in various works either solely

4) As one of the reviewers mentioned, the acceptability becomes degraded if the gaps are filled in by overt pronominals such as 'ku' or 'ku kes'.

for deletion or *pro* are not repeated again in this paper (Refer to various extensive works cited in the introduction for concrete data). Instead, we present novel sets of examples that lend support to deletion analysis. Let us move on to the next section to give consideration to the data.

3. Argumental Gaps with Feature Mismatches

3.1. DP argument gaps

Examples given in (17-21) contain null arguments that do not match with the antecedents with respect to syntactic or semantic features. First, the following pairs of data in (17-18) display arguments with polarity feature mismatches. In (17), even though the antecedent is ‘amwukesto’, the gap is (and should be) understood as ‘mwuesinka-lul’, which does not alternate with an overt pronominal at all.

(17) Arguments with Polarity mismatches:

Q: ne amwukesto⁵⁾ an mek-ess-ni?

5) The canonical or default value of polarity is positive polarity (Huddleston and Pullum 2007). One might wonder how ellipsis is licensed in this case since the antecedent ‘amwukesto’ and the target ‘mwuesinka-lul’ are not identical. Close examination however reveals that those two are ‘allolexes’, analogous to allophones in phonology or allomorphs in morphology. To be specific, the term ‘allolexes’ (all ‘other’ + lex ‘word’: Greek) are coined to refer to different realizations of an abstract ‘lexeme’ (lex ‘word’ + -eme ‘abstract unit’: Greek) in a similar way that allophones and allomorphs are made up to refer to different realizations of a phoneme and a morpheme, respectively. In this light, ‘amwukesto’ and ‘mwuesinka’ contrast in a single feature, i.e. the polarity feature; ‘amwukesto’ is a negative polarity item while ‘mwuesinka-lul’ is a positive polarity item. That is, they are variant forms of the "same" abstract word (lexeme) as confirmed by the contrast in (i-ii).

- (i) Q: ne sakwa an mek-ess-ni?
 you apple neg eat-pst-Q
 ‘Didn’t you eat an apple?’
 A: ani, sakwa mek-ess-e.
 no apple eat-pst-decl
 ‘Yes, I did (eat an apple).’

- you anything neg eat-pst-Q
 'You did not eat anything?'
- A: ani, (na mwuesinka-lul) mek-ess-e.
 no I something-acc eat-pst-decl
 'Yes, I ate something'
- (18) Q: Ne amwuto an/mos manna-ss-ni?
 You anyone neg meet-pst-Q
 'You did not meet anyone?'
- A: ani, (na nwukunka-lul) manna-ss-e⁶).
 no I someone-acc meet-pst-decl
 'Yes, I met someone.'

Second, an antecedent and the target can vary in terms of definiteness or specificity as exemplified in (19-20). To be specific, a definite argument *my dictionary*, as an antecedent, can be referred to as a null argument with or without definite reference in the continued conversation:

(19) Arguments with Specificity mismatches (I):

- A: ne nay sacen mos po-ass-ni?
 you my dictionary neg see-pst-Q

-
- (ii) Q: ne amwukesto an mek-ess-ni?
 you anything neg eat-pst-Q
 'Didn't you eat anything?'
- A: ani, mwuesinka-lul/*amwukesto mek-ess-e.
 no something/anything eat-pst-decl
 'Yes, I ate something.'

As exemplified above, the underlined object DP remains the same in Q and A of (i) while it cannot maintain its original form in Q and A of (ii). These dialogues show that 'amwukesto' is necessarily realized as 'mwuesinka-lul' in a positive sentence, which shows that those two elements are variant forms of the "same" lexeme, i.e. allolexes. They are sensitive to the [\pm neg] of the predicate, thus being differently realized depending on the [\pm neg] value of the predicate.

- 6) As one of the reviewers mentioned, the gap in (17-18) alternates with an overt pronoun if both the questioner and answerer have some specific entity in mind. Refer to Lee (2013) as well for relevant discussion.

'Didn't you see my dictionary?'

B: ani, na [+def]_____ mos po-ass-e.
No I neg see-pst-decl

'No, I didn't see it.'

B': ani, na ku kes mos po-ass-e. (= B)
No I the thing neg see-pst-decl

'No, I didn't see it.'

A: na [+def]_____ ilhepeli-nkeskatha.
I lose-seem

'It seems that I've lost my dictionary.'

B: philyoha-lthentey [-def]_____ sa-lyem.
need-conj buy-dir.

'Please get a dictionary as you will need one.'

A similar account applies to dialogue (20). An indefinite argument *towumi* 'assistant', as an antecedent, can be referred to as a null argument with or without definite reference in a series of dialogue:

(20) Arguments with Specificity mismatches (II):

A: ne towumi (han myeng) philyoha-ni?
you assistant one person need-Q

'Do you need an assistant?'

B: ani, na [-def]_____ an philyoha-y.
No I neg need-decl

'No, I don't need one.'

B': ani, na ku-ka an philyoha-y. (≠/≠ B)
No I he neg need-decl

'No, I don't need him.'

A: cinanpeney [-def]_____ kwuha-n-ta-ko ha-teni.....
last.time search.for-pres-decl-comp say-retro.

'You were searching for an assistant last time.'

B: ne acik [+def]_____ mos manna po-ass-na pokwuna.
you yet Neg have.a.chance.to.meet-pst-conjec.

You haven't met my assistant.

na [_{-def}]_____ imi kwuhay-ss-e.
 I already employ.pst-decl
 I've already employed an assistant.

Third, an antecedent and the target possibly exhibit Case mismatch; a dative-marked DP can be realized as zero under sloppy identity with an accusative-marked DP:

(21) Arguments with Case mismatches:

- A: Cheli-nun ku ay-lul ttayli-ess-ta.
 Cheli-Top the child-acc hit-pstdecl
 'Cheli hit the child'
- B: Yenghi-nun ___ tol-ul tenci-ess-ta.
 Yenghi-Top stone-acc throw-pst-decl
 'Yenghi threw a stone at the child'
- (=Yenghi-nun ku ay-eykey tol-ul tenci-ess-ta.)
 Yenghi-Top the child-dat stone-acc throw-pst-decl

Taken together, the facts discussed above undermine a uniform *pro* analysis of null DP arguments since *pro*, having no internal structure, is assumed to have *strict* identity with the antecedent and should be able to alternate with an overt pronominal (Polinsky and Potsdam 2002; Monahan 2003; Takita 2008; Lee and Kim 2010).

3.2. CP argument gaps

Clausal complements, when realized as zero, also exhibit similar properties. As exemplified in (22), the bracketed antecedent clause has a declarative complementizer 'ko' with a [-wh] feature while the target clause an interrogative complementizer 'ci' with a [+wh] feature.

(22) Arguments with different [C] features:

- A: na-nun [Cheli-ka Swumi-lul salangha-n-ta-ko]
 I-Top C-nom S-acc love-pres-decl-comp [_{-Q}]

(24) Arguments with different [C] features:

- A: na-nun [hankwuk-i pulacil-ey cwukkwu-lul ci-lke-la-ko]
 you-top Korea-nom Brazil-at football-acc lose-conjec.-decl-comp_[decl]
 yesanghay-ss-ess-ni?
 expect-pst-perf-Q
 ‘Did you expect that Korea would lose a football match with Brazil?’
- B: na-nun cengmal _____ silmangthay-ss-ta.
 I-top indeed be.disappointed-pst-decl
- = na-nun [hankwuk-i pulacil-ey cwukkwu-lul ci-ese]
 I-top Korea-nom Brazil-tofootball-acc lose-comp_[cause]
 silmangthay-ss-ta
 be.disappointed-pst-decl
 ‘I was disappointed since Korea lost a football match with Brazil.’

Also intriguing is example (25) in that the missing argument CP shows some mismatch with the antecedent clause in terms of [+hon] feature.

(25) Arguments with [+hon] mismatches⁷⁾:

- A: na-nun tongsayng-ul kyohoi-ey tani-la-ko seltukhay-ss-e.
 I-top younger.sister-acc church-to go-decl-comp persuade-pst-decl
 ‘I persuaded my younger sister to go to church.’
- = na-nun tongsayng-ul_i [PRO_i kyohoi-ey tani-la-ko] seltukhay-ss-e.
- B: na-to halapeci-lul_i _____ seltukhay-ss-e.
 I-also grandfather-acc persuade-pst-decl
- = na-to halapeci-lul_i [PRO_i kyohoi-ey tani-si-la-ko]
 I-also grandfather-acc church-to go-hon-decl-comp
 seltukhay-ss-e.
 persuade-pst-decl
 ‘I persuaded my grandfather to go to church.’

7) One of the reviewers pointed out that use of the honorific marker for ‘grandfather’ is a pragmatic matter, not a grammatical one, and hence it is not a matter of grammatical (un)acceptability. Still, as recently proposed by Hong (2013), honorific agreement can be triggered by some checking feature [\pm Hon] under Sisterhood in the sense of Adger (2007). Under Hong (2013)’s proposed analysis, honorific agreement can be arguably taken as some sort of grammatical one mainly detected in the domain of DP, vP, and ForceP.

As for CP gaps as well, we have witnessed that ellipsis is licensed despite the fact that the antecedent and the target are not identical. Together with the data regarding DP gaps, we can conclude from data with CP gaps that the null arguments are not necessarily exact copies⁸⁾ of the antecedents. The next section will present a proposal on how to account for these data sets with mismatch puzzles, which challenges a *pro*-based account of every null argument in Korean. *Pro*-based account cannot posit an internal structure at the ellipsis site, although the postulation of the internal structure, a typical sign of deletion operation, plays an essential role in teasing apart a plausible approach to accounting for feature mismatches.

4. A Proposal

4.1. The Target of Deletion

Previous analyses of null arguments are represented by three parties, i.e. the *pro* analysis (Ahn and Cho 2009, 2010, 2011; Moon 2010; M-K Park 1994, 2012 for Korean), the deletion analysis (S-W Kim 1999; Um 2011 for DP deletion analysis, Huang 1999; Otani and Whitman 1991 for VP ellipsis analysis) and the hybrid approach (Park and Bae 2012, Lee 2011 etc.) Data presented in section 3 exhibit feature mismatches and imply an internal structure of the ellipsis site, which suggests that deletion operation is responsible for yielding null arguments in the relevant constructions. Despite the fact that Korean belongs to *pro*-drop languages, some argumental gaps call for an analysis based on ‘deletion’. An outstanding question is exactly what undergoes deletion? We propose that the target of deletion is a lexical core marked with a circle as depicted in (26)⁹⁾.

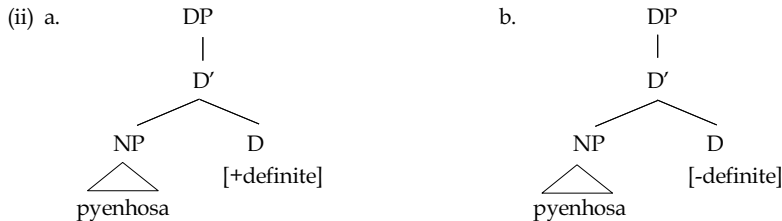
8) See a strong alternative approach to ellipsis structure that assumes the exact identity – the (PF) deletion approach as in Ross (1967), Sag (1976), Lasnik (1995), among others.

9) Before going into discussion, let me justify the proposed DP structure given in (26). Korean as an articleless language is proposed to not have an overt element under the head D. Instead, features such as [\pm definite] reside in the head D since Korean NPs or DPs can stand alone in their bare forms without being specified for definiteness. When they stand in bare forms, they are given specification by the contexts. Due to head-finality, D is postulated in the post-complement position and, as mentioned above, filled in with no overt

elements. For instance, example (i) is ambiguous due to the fact that *pyenhosa* ‘lawyer’ is not specified as for definiteness, yielding potentially two interpretations “He met his lawyer” and “He met a lawyer”.

- (i) ku-ka pyenhosa-lul manna-ss-ta.
 he-nom lawyer-acc meet-pst-decl
 a. He met his lawyer.
 b. He met a lawyer.

The dual features [\pm definite] are thus postulated for the DP “*pyenhosa*” as illustrated in (ii). Reading (a) is obtained in the presence of [+definite] feature while reading (b) in the presence of [-definite] feature. This ambiguous example is well predicted and explained under our feature-based proposal.

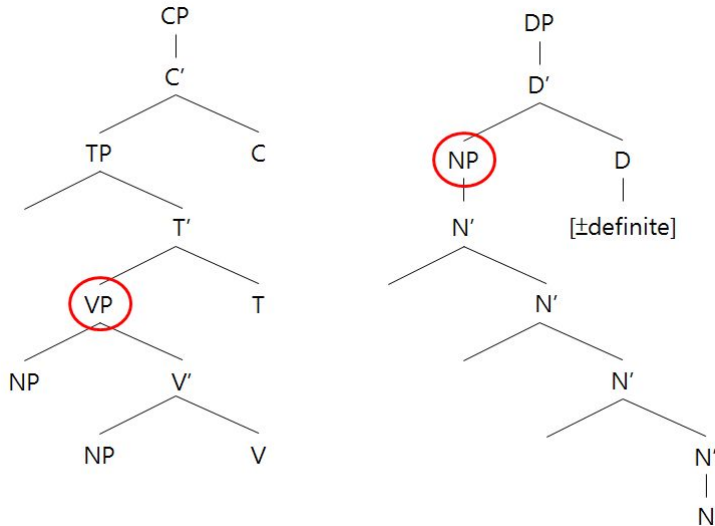


Note, also, that “presumable” specifiers are not readily differentiated from adjuncts within DP structures in Korean. Attributes in English are clearly distinguishable from specifiers as they occur closer to their head than specifiers (or determiners) in the traditional NP structure. They are subject to a word order constraint:

- (iii) a. the pretty girl
 b. *pretty the girl

However, all the presumable determiners in Korean exhibit syntactic behaviors of adjuncts. Specifically, Korean counterparts of English determiners, i.e. *ku* ‘the’, *ilen* ‘this’, *Cheli-uy* ‘Cheli’s’ can occur with other premodifiers or adjuncts and all of them can be mixed up with each other in any order:

- (iv) kim kyoswunim-uy ccalpun ku kanguy
 kim professor-gen short the lecture
 (= ku ccalpun-un kim kyoswunim-uy kanguy)
 ‘The short lecture of prof. Kim’s’
- (v) kamtongcekin co moksa-uy ku selkyo
 touching cho pastor-gen the sermon
 (= co moksa-uy ku kamtongcekin selkyo)
 ‘The touching sermon of pastor Cho’s’

(26) Target of Deletion¹⁰

Specifically, all the targets in examples (17-25) introduced in Section 3 undergo deletion since they are identical with the antecedents in terms of lexical cores. Lexical cores refer to the (minimal) abstract lexemes or propositions with no functional features such as [D], [T] and [C] specified. In (17-18), once the [polarity] feature is ignored, the antecedent and the target are identical. Both are derived from the same lexeme¹¹). In (19-20), once the [definiteness] or [specificity] feature is ignored, the antecedent and the target are identical. In (21-24), once the [Q] or [cause] feature is ignored, the antecedent and the target share the identical proposition or lexical core. The same account applies to example (25), where the antecedent and the target are identical once they are stripped of [honorific] feature.

In sum, deletion is licensed in (17-25) under "lexical core" identity between

Those three underlined parts are taken together as adjuncts. As they can be stacked on top of each other by projecting N', they are represented as such in the proposed structure (26).

(See Fukui 1986 for a similar idea for Japanese)

10) The target of deletion, VP, can be understood in the sense of the innermost "contentful VP" within the VP shell structure proposed by Larson (1988).

11) Refer to footnote 5 for the concept "the lexeme".

the antecedent and the target. Those examples with feature mismatches¹²⁾ severely undermine a uniform *pro* approach towards argumental gaps in Korean. Next subsection shows how the ellipsis site gains relevant interpretation.

4.2. The Interpretive Mechanism: LF (selective) Feature Copying

Along with the deletion operation illustrated in 4.1, we propose LF (selective) feature copying (Oku 1998, 2001, Lee and Kim 2010, Lee 2011) for an interpretive mechanism. Given the assumption of the minimalist program (and lexical semantics as well) that words are not primitives but feature bundles, features can be (selectively) deleted and copied, in line with the minimalists' assumption that features alone can undergo movement¹³⁾. Before going on to LF

12) CP deletion is detected not only at the *embedded clause* but also at the *main-clause* level. Example (i) below appears to exhibit CP deletion. Specifically, deletion of the lexical core 'Cheli-ka Yenghi-eykey sakwaha' yields answers like (iB). The intended interpretation of (iB) is obtained once the lexical core is reconstructed in the target and then relevant syntactico-semantic features are filled in the target of (iB). Compatible syntactico-semantic features are provided in accordance with the selectional properties of each adverbial in the spirit of Cinque (1999)'s functional hierarchy based on the examination of adverbial phrases. Based on his assumptions, Korean adverbials such as 'ecciemyen' and 'enceinkanun' are proposed to license a 'conjecture' type clause force '-il kesita'. This intriguing issue is under further investigation.

- (i) A: Cheli-ka Yenghi-eykey sakwahay-ss-ni?
 Cheli-nom Yenghi-dat make.an.apology-pst-Q
 'Did Cheli make an apology to Yenghi?'
 B: ecciemyen.....! (= ecciemyen Cheli-ka Yenghi-eykey sakwaha-l kes-ita.)
 perhaps
 'Perhaps he will make an apology to Yenghi.'
 enceinkanun.....! (= enceinka-nun Cheli-ka Yenghi-eykey sakwaha-l kes-ita.)
 someday
 'Someday he will make an apology to Yenghi.'

13) Chomsky (Following Pollock 1989) suggested that strong features are associated with overt movement and weak features with covert movement. Covert movement, since it is a post-Spell Out operation and hence is not constrained by phonetic outcome, can be taken as the minimal movement of the checking features instead of the whole lexical items. Given that feature movement is a more minimal operation than moving a whole category, this explains why covert movement is preferred to overt movement.

Crucially, as rephrased by Oku (2001), Chomsky (1995a) made it clear that 'LF feature

feature copying, let us see why we have to reassess a uniform *pro* analysis of null CP arguments and need to find an alternative.

Based on Merchant (2001), Ahn and Cho (2009)¹⁴ argued that there is no CP deletion in Korean and that every null CP argument is just *pro* in this language. Take (28) as an illustrative example (Ahn and Cho 2009). Specifically, they proposed that the clausal complement ‘Yenghi-ka Toli-lul salangha-n-ta-ko’ in (28A) turn into a nominal ‘Yenghi-ka Toli-lul salangha-n-ta-nun kes’ or ‘ku-kes’ as in (28B’-B’’) and then become *pro* in (28B), resulting in an invisible argument.

- (28) A: na-nun [Yenghi-ka Toli-lul salangha-n-ta-ko] mit-nun-ta.
 I-Top Y.-Nom T.-Acc love-Pres-Dec-C believe-Pres-Dec
 ‘I believe Yenghi loves Toli.’
- B: na-nun __ mit-ci-ahn-a.
 I-Top believe-Neg-decl
 ‘Lit. I don’t believe.’
- = B’: na-nun [Yenghi-ka Toli-lul salangha-n-ta-nun
 I-top Yenghi-nom Toli-acc love-decl-rel
 kes-ul] mit-ci-ahn-a.
 the.thing-acc believe-Not-Pres-Dec
- = B’’: na-to ku kes mitci-ahn-a.
 I-too the thing believe-Not-Pres-Dec
 ‘I don’t believe the fact.’

Their proposed conversion test seems to work at the above conversation employing an identical complementizer ‘-ko’ between the antecedent and the target clause. The “mismatch” examples introduced in section 3 (partially reintroduced below in (29-32)), however, constitute a serious challenge to a

decomposition’ of a lexical item is available and that only relevant features of a lexical item can be affected by LF syntactic operations.

14) Merchant (2001) argued that CP deletion is not allowed in English because only functional categories can bear E feature and license the ellipsis of their complements. Ahn and Cho (2009), following Merchant (2001), proposed that Korean does not allow CP deletion since a lexical category V cannot bear E-feature. Merchant (2001), however, admitted that the possibility of extending his analysis to other languages still need further investigation through extensive cross-linguistic studies.

uniform *pro* analysis of every null CP argument. For one, as to (29), proponents of *pro* analysis will have to argue that the clausal complement ‘Cheli-ka Swumi-lul salangha-n-ta-ko’ in (29A) turns into a nominal ‘Cheli-ka Swumi-lul salangha-n-ta-nun-kes’ or ‘ku-kes’, and then ‘ku-kes’ becomes *pro* in (29B), an invisible argument.

(29) Arguments with different sorts of complementizers

A: na-nun [Cheli-ka Swumi-lul salangha-n-ta-ko]
 I-Top C-nom S-acc love-pres-decl-comp [-Q]
 sayngkakha-y.
 think-decl

‘I think that Cheli loves Swumi.’

B: nay-ka Yenghi-eykey _____ mwulepoasse.
 I-nom Y-dat _____ asked

= nay-ka Yenghi-eykey [Cheli-ka Swumi-lul salangha-nun-ci]
 I-nom Y-dat C-nom S-acc love-rel-comp[+Q]
 mwulepoasse.

asked

‘I asked Yenghi if Cheli loves Swumi’

(This utterance can be possibly followed by "And, Yenghi said he didn't".)

Note, however, that the conversion does not work in (29) since it leads to an unacceptable utterance “nay-ka Yenghi-eykey Cheli-ka Swumi-lul salangha-n-ta-nun-kes mwulepoasse”.

Consider another example (30) that severely undermines *pro* analysis of null CP arguments.

(30) Arguments with different sorts of complementizers

A: ne-nun [hankwuk-i pulacil-ey cwukkwu-lul ci-lke-la-ko]
 you-top Korea-nom Brazil-at football-acc lose-conjec.-decl-comp[*decl*]
 yesanghay-ss-ess-ni?
 expect-pst-perf-Q

‘Did you expect that Korea would lose a football match with Brazil?’

B: na-nun cengmal _____ silmangthay-ss-ta.
 I-top indeed be.disappointed-pst-decl
 'I was disappointed since Korea lost a football match with Brazil.'
 = na-nun [hankwuk-i pulacil-ey cwukkwu-lul ci-ese]
 I-top Korea-nom Brazil-to football-acc lose-comp_[cause]
 silmangthay-ss-ta
 be.disappointed-pst-decl

Ahn and Cho (2009)'s *pro* analysis predicts that the null argument in (30B) is *pro* that refers to a clausal nominal 'hankwuk-i pulacil-ey cwukkwu-lul ci-lke-lanun-kes'. They cannot predict the intended meaning of (30B). Simply put, since they explain every null argument by resorting to *pro* with no internal structure, they face difficulty accounting for examples with any feature mismatches.¹⁵⁾ Consider another interesting one (31) before presenting our own analysis.

(31) Arguments with [+hon] mismatches:

A: na-nun tongsayng-ul kyohoi-ey tani-la-ko seltukhay-ss-e.
 I-top younger.sister-acc church-to go-decl-comp persuade-pst-decl
 = na-nun tongsayng-ul_i [PRO_i kyohoi-ey tani-la-ko] seltukhay-ss-e.
 'I persuaded my younger brother to attend church.'
 B: na-to halapeci-lul _____ seltukhay-ss-e.'
 I-also grandfather-acc persuade-pst-decl
 'I also persuaded my grandfather to attend church.'
 = na-to halapeci-lul_i [PRO_i kyohoi-ey tani-si-la-ko]
 I-also grandfather-acc church-to go-hon-decl-comp
 seltukhay-ss-e.
 persuade-pst-decl

As specified in (31), PRO is identified by its antecedent 'grandfather' and the honorific subject 'PRO' requires an honorific agreement morpheme '-si' of the predicator *tani-ta* 'attend'. Proponents of *pro* analysis of null arguments will have to posit a clausal nominal 'kyohoi-ey tani-lkes' or 'ku kes' for the missing CP

15) Other than this problem, their *pro* analysis of null CP arguments "burdens" every clausal argument with an extra nominalization process before ellipsis.

position to argue that the missing CP is in fact a disguised CP deletion of *pro*. They then immediately face a difficulty accounting for failure of honorific agreement, which results in unacceptability of (32B'). Specifically, Ahn and Cho (2009) predicts that 'kyohoi-ey tani-lkes' is realized as *pro* in the target clause B. This prediction yields an unacceptable sentence as in (32B'), which does not have a required honorific agreement morpheme.

- (32) A: na-nun tongsayng-ul kyohoi-ey tani-la-ko
 I-top younger.sister-acc church-to go-decl-comp
 seltukhay-ss-e.
 persuade-pst-decl
 = na-nun tongsayng-ul_i [PRO_i kyohoi-ey tani-la-ko] seltukhay-ss-e.
 B: (Ahn and Cho's prediction: B=B')
 na-to halapeci-lul_i *pro* seltukhay-ss-e.
 I-also grandfather-acc persuade-pst-decl
 B': *na-to halapeci-lul_i PRO_i kyohoi-ey tani-lkes-ul
 I-also grandfather-acc church-to go-NML-acc
 seltukhay-ss-e.
 persuade-pst-decl

So far we have seen hurdles that proponents of *pro* account have yet to overcome. All these challenges led us to pursue an alternative line of analysis and propose argument deletion operation followed by LF (selective) feature copying. Before seeing how it works, let us review our novel examples presented above in section 3. Examples (17-21) contain DP argumental gaps exhibiting various feature mismatches such as polarity (17-18), specificity (19-20) and Case (21). Likewise, examples (22-25) carry CP argumental gaps displaying diverse feature mismatches such as [Q] or [wh] (22), some semantic feature [cause] (23-24) and some agreement feature [hon] (25). As for these "mismatch" examples, we proposed in 4.1 that the target undergoes deletion when identical with the antecedent in terms of "lexical cores". An outstanding question is how the gap recovers or gains relevant interpretations. Take (33) for an illustrative example of DP deletion.

(33) Arguments with Polarity mismatches (= example (17)):

Q: ne amwukesto an mek-ess-ni?
 you anything neg eat-pst-Q
 'You did not eat anything?'

A: ani, na (mwuesinka-lul) mek-ess-e.
 no I something-acc eat-pst-decl
 'Yes, I ate something'

As discussed above in footnote 5, DPs 'amwukesto' and 'mwuesinka' are identical once stripped of polarity features. That is, they share the same lexical core. Since the target 'mwuesinka' is identical with the antecedent 'amwukesto' in the lexical core, it undergoes deletion. Now, our question is how the gap obtains relevant interpretation. Our proposal is that first the lexical core is reconstructed at the deletion site and then relevant syntactic and semantic features are filled in at LF in accordance with C- and S-selection of the predicate. Since the answer part in (33) is a positive statement, positive polarity features are provided subsequent to reconstruction of the lexical core, yielding an intended interpretation 'I ate something'.

CP deletion is also given a similar account. Consider (34) with [C] feature mismatch.

(34) Arguments with different [C] features (= example (22)):

A: na-nun [Cheli-ka Swumi-lul salangha-n-ta-ko]
 I-Top C-nom S-acc love-pres-decl-comp [_Q]
 sayngkakha-y.
 think-decl
 'I think that Cheli loves Swumi.'

B: nay-ka Yenghi-eykey _____ mwulepoasse.
 I-nom Y-dat _____ asked

= nay-ka Yenghi-eykey [Cheli-ka Swumi-lul salangha-nun-ci]
 I-nom Y-dat C-nom S-acc love-rel-comp[_{+Q}]
 mwulepoasse.
 asked
 'I asked Yenghi if Cheli loves Swumi' (And, Yenghi said he didn't.)

As is the case in other constructions in the minimalist program, the exact implementation can vary, but we propose that the CP argument is deleted under identity with the antecedent in terms of the lexical core and then, for interpretation, at LF the lexical core is reconstructed at the deletion site through Copy and Merge operation. Specifically, in (34B), the deleted part at PF is "Cheli-ka Swumi-lul salangha" under identity with the lexical core in (34A), which corresponds to the contentful VP under the Larsonian VP-shell structure. Although the dependents '-nun-ci' survive deletion, they are not realized on the surface since they, as bound morphemes, cannot stand alone without roots. This thus yields a response like (34B), which is 'nay-ka Y e n g h i - e y k e y mwulepoasse'.

Now, an interpretive process, LF Copying, starts up in the argumental gap position. First, the lexical core 'Cheli-ka Swumi-lul salangha' is reconstructed at the deletion site through Copy and Merge operation. Since the lexical core cannot directly combine with the matrix verb 'mut-', a series of category selection occurs according to the selectional requirement of each lexical or functional categories.

First, let us consider the selectional properties of the matrix verb 'mut-'. It requires some sort of complementizer. Can the complementizer '-ko' be copied from the antecedent? Given the fact that the complementizer '-ko' is a Korean counterpart of the English complementizer 'that', it has a feature composition [-wh, +finite]. For a convergent derivation, we propose that the [wh] feature of C should not be copied from the antecedent (34A). Rather, the [+wh] feature is 'syntactically' filled in the C of (34B), yielding a Q morpheme '-ci' since the matrix predicate *mut-* 'ask' in (34B) requires a [+wh] complementizer¹⁶. Consider

16) How is [wh] feature of C determined in (34B)? The relevant feature is determined by the main verb *mwut-ta* 'ask', which has [+wh] feature and requires a compatible [+wh] C(P). English examples in (i-ii) confirm that CP is selected by the main verb. Specifically, [+wh] interrogative and dubitative verbs such as 'inquire' and 'wonder' select [+wh] C 'whether' while [-wh] cognitive and assertative verbs such as 'believe' and 'claim' require [-wh] C 'that'. In other words, a verb selects its own compatible CP.

- (i) a. Mary believed/claimed that John stole the wallet.
- b. *Mary believed/claimed whether John stole the wallet.
- (ii) a. *Mary inquired/wondered that John stole the wallet.
- b. Mary inquired/wondered whether John stole the wallet.

the next 'feature filling' process based on the selectional requirement of the [+wh] C. This morpheme requires [+finite] T, '-nun' in this example. Finally, the concatenated bound morphemes '-nun-ci' searches for a root VP to resort to, which is the reconstructed one 'Cheli-ka Swumi-lul salangha'. Now, the whole sentence 'nay-ka Yenghi-eykey [Cheli-ka Swumi-lul salangha-nun-ci] mwulepoasse' is built up at LF and successfully yields the intended interpretation.

Discussion so far can be summarized as follows: [1] Discourse-bound variable interpretation is inherent in the meaning of the predicator (Example 11). In this case, the argument can be taken as an implicit one or *pro*. [2] Null arguments have generic interpretations 'we' or 'they' without the presence of the antecedent at all (Examples 12-13). These may be *pro-drop*. [3] Some null arguments alternate with an overt pronominal 'ku kes' or 'ku' (Examples 14-16). These may be *pro*. [4] Some arguments are realized as zero even though they show mismatches with the antecedents in terms of semantic and syntactic features (Examples 17-25). Arguments that are identical in 'lexical cores' with the antecedents are proposed to undergo deletion. Null arguments are given interpretation through selective feature copying at LF. Syntactic processes involved are as follows; first, lexical cores are reconstructed at the deletion site and then the other syntactically and semantically compatible features such as polarity, [specificity], Case, [Q] or [wh], and [Hon] feature etc. are filled in as required by the linguistic contexts, i.e. C- and S-selection of the predicate etc, for instance.

5. Conclusion and Implications

Discussion so far leads us to conjecture that either "not every null argument is *pro* in Korean" or "the proposed feature composition [+pronominal, -anaphor] of *pro* needs to be revised". Let us contemplate the latter conjecture first. If we seriously consider revision of the feature composition of *pro*, we are trying to alter the original definition of a concept '*pro*' in order to argue that every null argument is *pro* in Korean. This is not a right direction to pursue since we cannot tamper the original concept to accommodate examples that are not

explained by the given definition. For this rationale, rather than adopting the latter proposition and trying to revise the feature composition of *pro*, we cannot but choose the former proposition that not every null argument is *pro* in Korean. In order to advocate this claim, this paper offered some novel empirical evidence and a principled account for the ellipsis of nominal and clausal arguments (DP and CP, respectively). In particular, we went into various feature mismatch puzzles (or, sloppiness puzzles) both in DP and CP null arguments. These two sorts of null arguments are given relevant interpretation through a unified interpretive mechanism, LF (selective) feature copying, based on the C- and S-selection of the predicator in the target clause. We leave any loose ends for future research, recalling Chomsky (1965)'s old remarks that the condition of deletion is not identity but rather "nondistinctness" in terms of features of the antecedent and the elliptic site and, hence, some kind of sloppiness is allowed under deletion. Sloppiness, as Chomsky remarked, IS a sign of deletion.

References

- Adger, D. (2007). Variability and modularity: A response to Hudson, *Journal of Linguistics*, 43(3), 695-700.
- Ahn, H-D., & Cho, S. (2009). On the absence of CP ellipsis in English and Korean. *Korean Journal of Linguistics*, 34, 267-281.
- Ahn, H-D., & Cho, S. (2010). More on the absence of CP ellipsis: A reply to Park (2009). *Studies in Generative Grammar*, 20, 549-576.
- Ahn, H-D., & Cho, S. (2011). Notes on apparent DP ellipsis: A reply to Lee and Kim (2010). *Korean Journal of Linguistics*, 36, 457-471.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.
- Chomsky, N. (1982). *Some concepts and consequences of the theory of government and binding*. Cambridge, MA: MIT Press.
- Chomsky, N. (1995a). Categories and transformations. *Chapter 4 of The Minimalist Program* (pp. 219-394). Cambridge, MA: MIT Press.
- Cinque, G. (1999). *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.
- Fukui, N. (1986). *A theory of category projection and its application*. Unpublished

- Doctoral Dissertation, MIT, Boston, MA.
- Hong, S. (2013). Feature-based Honorifics and Politeness in English and Korean at a Syntax-Pragmatics Interface. *Studies in Generative Grammar*, 23, 199-219.
- Huang, C.-T. J. (1984). On the distribution and reference of empty pronouns. *Linguistic Inquiry*, 15, 531-574.
- Huang, C.-T. J. (1999). *Chinese passives in comparative perspective*. Unpublished manuscript.
- Huddleston, R., & Pullum, G. (2007). *A student's introduction to English grammar*. Cambridge: Cambridge University Press.
- Kim, S-W. (1999). Sloppy/Strict identity, empty objects, and NP ellipsis, *Journal of East Asian Linguistics*, 8, 255-284.
- Larson, R. K. (1988). On the double object construction. *Linguistic Inquiry*, 19(3): 335-391.
- Lee, W., & Kim, J. (2010). DP ellipsis as independent phenomena from *pro* in *pro-drop* languages. *Korean Journal of Linguistics*, 29, 107-210.
- Lee, W. (2011). Zero realization of arguments revisited. *Korean Journal of Linguistics*, 36, 1031-1052.
- Lee, W. (2013). No internal structure in *pros*: A reply to Park (2012). *Korean Journal of Linguistics*, 38, 451-472.
- Merchant, J. (2001). *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
- Monahan, P. (2003). Backward object control in Korean. In G. Garland & M. Tsujimura (Eds.), *The proceedings of the 22nd West Coast Conference on Formal Linguistics* (pp. 356-369). Somerville, MA: Cascadilla Press.
- Moon, G-S. (2010). Null arguments redux. *The Linguistic Association of Korea Journal*, 18(1), 67-92.
- Oku, S. (1998). LF copy analysis of Japanese null arguments, In M. Catherine Gruber, D.H., K. S. Olson, & T. Wysocki (Eds.), *CLS 34* (pp. 299-314). Chicago: Chicago Linguistic Society.
- Oku, S. (2001). A minimalist theory of LF copy, In G. M. Alexandrova & O. Arnaudova (Eds.), *The minimalist parameter* (pp. 281-294). Amsterdam: John Benjamins Publishing Company.
- Otani, K., & Whitman, J. (1991). V-Raising and VP Ellipsis. *Linguistic Inquiry*, 22, 345-358.

- Park, B-S., & Bae, S. (2012). Identifying null arguments: Sometimes *pro*, sometimes ellipsis. *Korean Journal of Linguistics*, 37, 845-866.
- Park, M-K. (1994). *A Morpho-syntactic study of Korean verbal inflection*. Unpublished Doctoral Dissertation. University of Connecticut, Storrs, Connecticut.
- Park, M-K. (2012). Structurally ambiguous empty nominal pro-forms in Korean. *Korean Journal of Linguistics*, 37, 825-843.
- Polinsky, M., & Potsdam, E. (2002). Backward control. *Linguistics Inquiry*, 33, 245-282.
- Pollock, J-Y. (1989). Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry*, 20, 365-424.
- Saito, M. (2007). Notes on East Asian argument ellipsis. *Language Research*, 43, 203-227.
- Um, H-J. (2011). The nature of the null arguments in Korean. *Studies in Modern Grammar*, 3, 73-93.

Wooseung Lee
 Department of English Education
 Konkuk University
 Seoul 143-701, Korea
 Email: wlee6@konkuk.ac.kr

Received on December 25, 2013

Revised version received on February 28, 2014

Accepted on March 7, 2014