An Elliptical Coordination Analysis of the Right Dislocated Construction in Korean*

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Chung, Daeho. 2009. An Elliptical Coordination Analysis of the Right Dislocated Construction in Korean. *The Linguistic Association of Korea Journal.* 17(4). 1-23. This paper concerns itself with the syntax of the so-called right dislocated construction (RDC) in Korean. Taking the RDC as a crucial piece of evidence, J-S Lee (2007a,b, 2009) claims that Korean conforms to Kayne's (1994) universal word order (SVO) hypothesis. His claim sustains only when the RDC is analyzed as a mono-clause such that the post-verbal elements in the RDC belong to the propositional domain of the preceding predicate. Such a mono-clausal analysis hardly accounts for various properties that the RDC displays, including the fact that the RDC is a root phenomenon. The Korean RDC rather seems to be more readily accounted for by a bi-sentential analysis, as argued for the Japanese counterpart in the literature (Kuno 1978, Tanaka 2001, etc.). Some revision of the bi-sentential analysis is in order, however, because the RDC behaves like a mono-sentential, though not mono-clausal, structure. To account for both the mono-sentential properties and root properties at the same time, the current work proposes an elliptical coordination analysis, wherein two (or more) matrix clauses are coordinated and ellipsis has applied to the non-initial clauses.

Key words: right dislocated construction (RDC), post-verbal element, universal word order hypothesis, root phenomenon, ellipitical coordination, mono-/bi-sentential/clause

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1. Introduction

Predicates in Korean are generally fixed at the last position of a clause, although their dependents entertain some word order freedom, as in (1). The predicate does not necessarily appear at the sentence final position, however, as examples like the ones in (2) are often attested, especially in spoken texts.

(1) a. Chuli-ka Yuni-lul manna-ess-ta (SOV)
Ch.-Nom Y.-Acc meet-Pst-DE
'Cheli saw Yuni.'
b. Yuni-lul Cheli-ka manna-ess-ta (OSV)

(2) a. Cheli-ka manna-ess-ta Yuni-lul (SVO)
b. Yuni-lul manna-ess-ta Cheli-ka (OVS)
c. manna-ess-ta Cheli-ka Yuni-lul (VSO)
d. manna-ess-e Yuni-lul Cheli-ka (VOS)

At the first sight, it is not so obvious how the so-called right dislocated construction (RDC) like the expressions in (2) is derived in a head-final language like Korean. Notice that under the head parameter, no head position is allowed in a left branch of a tree in Korean and therefore no leftward head movement can be postulated in the RDC. There are two routes to pursue under such a circumstance. Either the head parameter is abandoned, or the post-verbal elements do not belong to the propositional domain of the (overtly realized) predicate, as will be discussed in the following two subsections.

1.1 J-S Lee (2007a,b, 2009): An SVO Hypothesis

J-S Lee (2007a,b) argues that the RDC cannot be derived with a word order parameter. Under the assumption that Korean is a head-final language, no leftward head (predicate) movement is available. Then, the RDC should involve either a rightward XP movement (to the post-verbal position) or a leftward XP movement followed by another instance of leftward (remnant) XP movement.[1)]

1) J-S Lee (2007b) argues against two other possibilities under the SOV hypothesis, i.e., an afterthought analysis and a PF stylistic approach: the former is rejected due to the strict

J-S Lee (2007a,b, 2009) tries to show that neither option is free of problems.

J-S Lee (2007b) points out that the first option, i.e., the rightward XP movement analysis, bears the following two problems. First, it is unclear what motivates the rightward movement in the RDC. Unlike the so-called Heavy-NP Shift in English, the RDC allows a very light element, even pronouns, in the post-verbal position, as in (3) below, cited from J-S Lee (2007b, (6)):

(3) po-ess-e ku-ka kunye-lul.
see-Pst-DE he-Nom she-Acc
'He saw her.'

Second, it is not obvious why the RDC is restricted to a root clause, nearly opposite to the expectation of Ross's (1967) right roof constraint that applies to the rightward movement. (See Section 2 for the root properties of the RDC.) Another difficulty the rightward movement analysis faces is a hierarchy problem. Post-verbal elements are expected to be higher than preceding pre-verbal or post-verbal elements. Binding facts show to the contrary, however.

(4) a. ku-uy citokyoswu-ka e_i cwuchenha-ci an-ha-ess-ta, amwuto$_i$.
he-Gen advisor-Nom recommend-CI Neg-do-Pst-DE anyone
'His advisor recommended no one.'
b. e_i e_j salangha-n-ta, Mary-ka$_i$ caki-lul$_j$.
love-Pres-DE M.-Nom self-Acc
'Mary loves herself.'

If the post-nominal quantifier in (4a) underwent a rightward movement, then the possessive pronoun should be able to have a bound variable reading, which is unavailable. (4b) is incorrectly predicted to be ruled out due to a Condition C violation.

J-S Lee (2007b) also points out that the second way of derivation, i.e., a leftward XP movement followed by a remnant XP movement, is not tenable, either, due to a violation of the so-called Proper Binding Condition (PBC,

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case-match property, while the latter due to the root property of the RDC.

Fiengo 1977). For example, (2a) will have the derivation in (5). At the final stage, i.e., in (5c), the trace t_i ends up being unbound, violating the PBC.

(5) a. Cheli-ka Yuni-lul po-ess-ta (➔ leftward XP_{object} movement)
b. Yuni-lul$_i$ [$_{VP}$ Cheli-ka t_i po-ess-ta] (➔ leftward (remnant) XP_{VP} movement)
c. [$_{VP}$ Cheli-ka t_i po-ess-ta] Yuni-lul$_i$ t_{VP}

There being apparently no way to derive the RDC under an SOV word order hypothesis, J-S Lee (2007a,b, 2009) abandons the head parameter. Instead he claims that Korean conforms to Kayne's (1994) universal SVO word order hypothesis, taking the RDC as evidence for the hypothesis. According to him, (2a) is the base word order, while all others in (2) and (1) are derived via (a combination of leftward) V-movement, and/or (remnant) XP-movement: (1a) by an object shift to a sentence medial position; (1b) by an object shift to the sentence initial position; (2b) by an object shift to a sentence medial position followed by a VP fronting; (2c) by V-to-C movement; and (2d) by a VP fronting.[2)]

1.2 A Bi-sentential Analysis

It was tacitly assumed in J-S Lee (2007a,b) that the structures in (2) as well as the ones in (1) are mono-clausal. However, a volume of Japanese literature (Kuno 1978, Whitman 2000, Tanaka 2001, Kato 2007, etc.) reports that the Japanese RDC displays bi-sentential properties and they propose bi-sentential analyses. Tanaka (2001), for example, proposes the structure in

2) J-S Lee (2007b) claims that there could be other possibilities to derive the structures. For example, (2d) can be derived as well by an object shift to the sentence initial position followed by a (remnant) VP fronting. I think, however, that this derivation will lead to a PBC problem since the trace of the object within the fronted VP will remain unbound. As for the derivation of (2c), it is not clear whether only a V-to-C movement is responsible. Notice that not only a predicate but also a predicate modified by some adjunct can take this position. Given the possibility of an XP movement, the same PBC problem will arise even for (2c).

(6) for the RDC, in which the so-called post-verbal element has been displaced to the initial position of the continuing sentence, while the rest of the sentence gets deleted.

(6) $[_{S1}\ldots\ pro_i\ \ Pred], [_{S2}\ XP_i\ \ \sout{[_{S2}\ldots t_i\ \ Pred]}]$

The 'post-verbal' element under this analysis is like a phonetically realized element in a fragment or Sluicing sentence in that it undergoes a *leftward* displacement while the remnant of the sentence gets deleted (Merchant 2004).[3)]

1.3 Organization of the Paper

This paper observes in Section 2 that the RDC in Korean, like its Japanese counterpart, displays bi-sentential properties, favoring a bi-sentential (Sluicing/fragment) analysis. It will be shown in Section 3, however, that the RDC and Sluicing/fragment diverge in some important aspects. Thus in Section 4, an alternative analysis, which involves a mono-structure, though not a mono-clause, is proposed. Section 5 discusses some theoretical implications that the RDC conveys.

2. Bi-Sentential Properties of the RDC

There is a cluster of facts favoring a bi-sentential (or more correctly

3) J-S Lee (2009:138-44) argues against the structure in (6) and the structure in (22) below (proposed in this work) for several reasons. One of the main reasons is that languages like Korean do not easily allow backward pronominalization or backward deletion. An easy way out would be to claim that there is no element present for the position taken by pro_i in (6) or by e_i in (22) until the structure is interpreted at the semantic component, as proposed in Yoon and Lee (2009). I believe that some of Lee's other arguments are easily counterargued, as will be mentioned in this work and some others require somewhat lengthy argumentation, but I regret I could not be able to incorporate them all in the current work due to the space limit. I would like to more extensively discuss them on another occasion.

non-mono-clausal) analysis over a universal SVO hypothesis. Among various others, the following properties will be taken up: the RDC without a gap, root properties of the RDC, restrictions on the RDC with a [+wh] reading, and scope facts. (The first three are mentioned in Tanaka 2001 for Japanese counterparts.)

2.1 Gapless RDC

A gapless RDC is allowed, as exemplified below:

(7) Cheli-ka Yuni-lul manna-ess-e, Yuni-lul
Ch.-Nom Y.-Acc meet-Pst-DE Y.-Acc
'Cheli saw Yuni.'

The SVO hypothesis combined with a mono-clausal hypothesis has difficulty accounting for such a gapless RDC. Sentences like the one in (7) will be theta-theoretically problematic since there exist more arguments than the predicate requires. The predicate *manna* 'to meet' requires two arguments but there appear three argumental noun phrases in the sentence. Under the bi-sentential analysis, however, (7) is theta-theoretically legitimate: the post-verbal element has no (direct) thematic relation with the preceding predicate but rather with the predicate of the continuing sentence that has undergone a massive deletion.[4)]

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4) J-S Lee (2009) claims that the doubling of object in (7) results when the object is shifted to a pre-verbal position, while leaving its copy in-situ. This, however, will lead to a serious problem with respect to the LCA since it will violate the irreflexivity condition. Furthermore, subject and adjunct as well as object (and their combinations) can be doubled. For example, all the expressions in (ii) can follow the utterance in (i):

(i) Cheli-ka ecey Yuni-lul manna-ess-ta.
Ch.-Nom yesterday Y.-Acc meet-Pst-DE
'Cheli met Yuni yesterday.'
(ii) {Cheli-ka/ecey/Yuni-lul/Cheli-ka ecey/Cheli-ka Yuni-lul/ecey Yuni-lul/Cheli-ka ecey Yuni-lul}

These examples cannot be easily accounted for by his system unless subject and adjunct (as well as object) are somehow shifted and a series of phrasal movement is assumed.

2.2 RDC as a Root Phenomenon

The RDC displays a root property. No post-verbal element in the RDC can be embedded, as shown in the following contrast:

(8) a. na-nun [Cheli-ka e_i manna-ess-ta-ko] sayngkakha-n-ta Yuni-lul_i
I-Top Ch.-Nom see-Pst-DE-C think-Pres-DE Y.-Acc
(Intended) 'I think that Cheli saw Yuni.'
b. *na-nun [Cheli-ka e_i manna-ess-ta-ko Yuni-lul_i] sayngkakha-n-ta
I-Top Ch.-Nom see-Pst-DE-C Y.-Acc think-Pres-DE
(Intended) 'I think that Cheli saw Yuni.'

With the SVO hypothesis, it is not obvious why the base word order is allowed only in the root clause, but not in an embedded clause. J-S Lee (2007b) assumes that embedded C, *ta-ko*, has a strong EPP feature so that it attracts the whole complement, i.e, IP. This stipulation, however, does not seem to be of much help. If the C attracts the whole IP, the following should be fine, contrary to fact:[5)]

(9) *na-nun [$_{CP}$ [$_{IP}$ Cheli-ka manna-ess Yuni-lul]$_i$ [$_C$-ta-ko] [t_{IP}]]
I-Top Ch.-Nom see-Pst Y.-Acc -DE-C
sayngkakha-n-ta
think-Pres-DE
(Intended) 'I think that Cheli saw Yuni.'

Moreover, the EPP can generally be satisfied by attracting an element within the complement, just as [+wh] C in English attracts an IP internal wh-element. Under the bi-sentential analysis, the root property of the RDC naturally follows. In this analysis, the 'post-verbal' elements are in fact initial elements of a continuing sentence, a root sentence. It is impossible to

5) One may attribute the ungrammatical status of (9) to the unacceptable morphology of the embedded verb and C. Notice, however, that even if they are replaced by morphologically closed forms, e.g., by manna-ess-e, and hay-ess-ta-ko, respectively, the sentence is still ungrammatical.

imagine a predicate that combines two or more root sentences. Once embedded in a complement clause, a structure is no longer a root sentence.

2.3 Restrictions on the RDC with a [+wh] Reading

There are some restrictions when the RDC has a [+wh] reading. Consider the following.[6]

(10) a. *Cheli-ka e_i po-ess-no, nwukwu-lul$_i$?
Ch.-Nom see-Pst-QE who-Acc
(Intended) 'Who did Cheli see?'

b. Cheli-ka nwukwu-lul$_i$ po-ess-no, nwukwu-lul$_i$?
Ch.-Nom who-Acc see-Pst-QE who-Acc
(Intended) 'Who did Cheli see?'

c. nwu-ka e_i po-ess-no, nwukwu-lul$_i$?
who-Nom see-Pst-QE who-Acc
'Who saw who?'

Wh-elements cannot appear in a post-verbal position, as in (10a), unless there is another wh-phrase in a pre-verbal position,[7] whether as a copy, as in (10b), or as an independent wh-element, as in (10c). The SVO hypothesis hardly accounts for this restriction. The SVO word order in (10a) should be

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6) Examples are taken from Kyengsang dialect in order to disambiguate [+wh] question endings (-ko for copular verbs and -no for non-copular verbs) from yes/no question endings (-ka for copular verbs and -na for non-copular verbs). See Suh (1987).

7) No such restriction applies to negative polarity items (NPIs) in Korean: NPIs may freely appear as post-verbal elements:

(i) Cheli-ka an-mek-ess-na, amwukesto
Ch.-Nom Neg-eat-Pst-QE anything
'Didn't Cheli eat anything?'

J-S Lee (2009:11-142) alludes that this asymmetry between a wh-phrase and NPI leads to a problem for a bi-sentential analysis. The asymmetry naturally follows, however, since NPIs should scope over negation in Korean, as argued in Chung and Park (1997), Kim (1999), Sells (2006), and Kim and Sells (2007).

possible since it is the basic word order and the object shift is optional in Korean. The bi-sentential hypothesis can take care of the above restriction due to an independent restriction that a wh-question with an overt [+wh] C requires an overt wh-phrase in Korean.[8] Note that under the bi-sentential analysis, the wh-phrase in (10a) belongs to the second sentence, while there is no overt wh-phrase in the first sentence which has an overt [+wh] C. Thus, the restriction on the RDC with a [+wh] reading can be attributed to the principle that is responsible for the restriction on the [+wh] C and wh-phrases, whatever it may turn out to be.[9],[10]

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8) Chung (2008) generalizes the distribution of wh-phrases and wh-question endings in Korean as follows:

(i) a. An overt [+wh] C requires an overt wh-phrase in its probe domain.
b. A covert [+wh] C requires an overt or covert wh-phrase in its probe domain.
c. An overt wh-phrase requires an overt or covert [+wh] C that c-commands it.
d. A covert wh-phrase requires a covert [+wh] C that c-commands it.

Based on the generalizations, Chung (2008) claims that Agree can bifurcate such that Agree for a [+wh] C is in PF, while Agree for a wh-phrase is in syntax. This conforms to Cheng's (1991) wh-typology that the sentence type is determined at overt syntax. Cheng (1991) is, however, silent about the wh-constructions in the context of ellipsis.

9) J-S Lee (2009: 150) tries to account for the ban on the post-verbal wh-phrase in terms of the following condition:

(i) The Q marker *-ni* must follow an overt wh-phrase for the proper formation of phonological deaccenting.

The condition in (i) is similar to (ia) in footnote 8, except for the phonological deaccenting requirement, by which he means a falling intonation to tell a wh-question ending from a yes/no question ending. The phonological deaccenting condition on the question ending does not seem to be right since a question ending in an embedded clause requires a wh-phrase in its scope domain, but no phonological deaccenting takes place.

10) Tanaka (2001) tries to account for the restriction in terms of the following principle proposed by Kuno's (1978):

(i) Principle of the Use of Empty Pro Forms (Kuno 1978, recited from Tanaka 2001)
Do not use empty pro forms for new information, while using overt forms for old information.

2.4 Scope Facts

Quantifiers in a negative sentence normally produce a scope ambiguity with respect to negation (especially to a long form), as in (11) below. However, quantifiers in a post-verbal position of the RDC have scope over negation, as in (12) below:[11]

Under the bi-sentential analysis, the first sentence in (10a) violates the principle in (i) since the wh-phrase, an inherent focus phrase, has a pro form, while old information is overtly realized. The principle in (i), however, will be silent about the following two sets of data.

(ii) A1: Cheli-uy atul-uy ilum-un?
Ch.-Gen son-Gen name-Top
'(What is) Cheli's son's name?'
B1: Yengswu.
'Yengswu.'
A2: kulem, Cheli-uy ttal-uy ilum-un?
then Ch.-Gen dauther-Gen name-Top
'Then, (what is) Cheli's daughter's name?'

(iii) A1: Cheli-ka nwukwu-lul cohah-ni?
Ch.-Nom who-Acc like-QE
'Who does Cheli like?'
B: Yuni.
'Yuni.'
A2: kulem, Kangi-nun nwukwu-lul cohaha-ni?
then K.-Top who-Acc like-QE
'Then who does Kangi like?'
A2': kulem, Kangi-nun nwukwu-lul cohaha-ni?
A2": # kulem, Kangi-nun nwukwu-lul cohaha-ni?

Korean allows wh-questions without an overt wh-phrase as in (ii). (See Chung 2001.) It is not obvious in Kuno's system why the wh-phrase in (iiA2) is allowed at all. Note that at least some part of the overtly realized chunk in the sentence, e.g., Cheli and ilum, is old information, while the wh-element, new information, is suppressed. Kuno's principle accounts for the deviance of (iiiA2"), but it is silent about the legitimacy of (iiiA2'), where a wh-phrase, a piece of new information, is suppressed.

11) A similar scope rigidity phenomenon is observed in fragments. (Ahn 2007, Sohn 2007). Consider the following (cited from Sohn 2007).

(i) Q: Mary-ka motwu ta an manna-ess-ni?
M.-Nom all Neg meet-Pst-QE

(11) Cheli-ka twul-ta manna-ci ani-ha-ess-e,
Ch.-Nom two-all meet-CI Neg-do-Pst-DE
'Cheli met neither of the two.'
'Cheli did not meet both of the two.'

(12) Cheli-ka e_i manna-ci ani-ha-ess-e, twul-ta_i.
Ch.-Nom meet-CI Neg-do-Pst-DE two-all
'Cheli met neither of the two.' BUT
#'Cheli did not meet both of the two.'

With the SVO word order hypothesis, the quantifier in (11) would be considered to have moved across a negated predicate, while the quantifier in (12) just remains in situ, i.e., below the negated predicate. It would be expected then that the quantifier in (11) has scope over negation, while the one in (12) has scope under negation, nearly opposite to the scope interpretations that (11) and (12) actually have. In contrast, the bi-sentential analysis well takes care of the scope facts. The post-verbal element is taken as the intial element of a continuing sentence that has undergone a leftward scrambling. The wide scope reading of the quantifier in (12) can be attributed to the principle that is responsible for the scope rigidity phenomenon in fragments, whatever it may turn out to be. (See footnote 11.)

In a gapless RDC, both the quantifier copies in a pre- and post-verbal position have scope over negation, as in (13) below.

(13) Cheli-ka twul-ta_i manna-ci ani-ha-ess-ta, twul-ta_i.
Ch.-Nom two-all meet-CI Neg-do-Pst-DE two-all
'Cheli met neither of the two.'

'Didn't Mary meet all?'
A: Ung, motwu ta. ($\forall$>neg)
Yes, all
A': Ung, motwu ta an manna-ess-e. ($\forall$><neg)
Yes, all Neg meet-Pst-DE

As an answer to a negative question, a quantifier in a fragment answer as in (iA) has scope over negation, while the full answer is ambiguous as in (iA').

#'Cheli did not meet both of the two.'

This can be accounted for under the bi-sentential analysis along the lines of Fox (1999), who claims that a quantifier raising takes place for an economy reason. The quantifier in the preceding sentence is to be raised at LF to have a scope interpretation parallel to the one in the second sentence.[12)]

2.5 Long Distance Right Dislocation

Another problem with the universal SVO hypothesis is the fact that an embedded (as well as matrix) element can be right dislocated, first noticed by Choe (1987). Consider (8a), repeated below:

(8) a. na-nun [Cheli-ka e_i manna-ess-ta-ko] sayngkakha-n-ta Yuni-lul_i
I-Top Ch.-Nom see-Pst-DE-C think-Pres-DE Y.-Acc
(Intended) 'I think that Cheli saw Yuni.'

According to the universal SVO hypothesis, sentences like the one in (8) will necessarily lead to a violation of the Proper Binding Condition (PBC). Notice that the embedded clause appears to the left of the right dislocated element that originates from it. Precedence being determined by hierarchy, the trace cannot be c-commanded by the right dislocated element, violating the PBC.

The bi-sentential analysis does not suffer from such a problem. The post-verbal element has undergone a 'leftward' movement in the continuing sentence, with the remnant elided. The null element in the embedded clause is simply a pronominal element (pro) or a nominal element that has

12) There are some speakers including J-S Lee (2009) who do allow ambiguous readings for sentences like (12). I leave the judgmental disagreement on QP-negation scope interactions open for the future work. Ko and Choi's (2009) experimental work reports that 'short distance' right dislocation of object does not lead to a scope reversal when both subject and object are scope bearing elements, as right dislocation is assumed in their system to be a movement into the inner SPEC of *v*P. I do not have much to say about this for the moment, either, except pointing out that subject in a post-verbal position can hardly be said to move into an inner SPEC of *v*P and that a long distance RD takes place in a language like Korean, as will be discussed in the following section.

undergone ellipsis (if there is such an ellipsis available in the syntax of the relevant language.) Thus no PBC problem arises in the bi-sentential analysis.

3. Some Differences between the RDC vs. Fragments

It was shown in the previous section that a cluster of phenomena is better explained by the bi-sentential analysis than by the SVO word order hypothesis combined with a mono-sentential structure. The advantages gained by the bi-sentential analysis were by equating the RDC with a fragmentary (Sluicing) sentence: Both the 'post-verbal' element, i.e., S2 in the RDC in (6), and the fragment involve a leftward movement followed by an IP ellipsis. As will be observed below, however, the 'post-verbal' element in the RDC and the fragment behave differently in some important aspects.

The first difference lies in prosody. Compare the following two:

(14) Yuni-ka phyenci-lul ponay-ess-e (#) Cheli-eykey.
Y.-Nom letter-Acc send-Pst-DE Ch.-Dat
'Yuni sent a letter to Cheli.'

(15) Yuni-ka nwukwunka-eykey phyenci-lul ponay-ess-e *(#)
Y.-Nom someone-to letter-Acc send-Pst-DE
totaychey nwukwu-eykey?[13]
on;earth who-to
'Yuni sent a letter to someone. To whom on earth did he send a letter?'

The RDC in (14) is acceptable with or without a pause between the predicate and the post-verbal element. cf. Tananka (2001). In contrast, (15) requires a pause to be acceptable, indicating that the fragment is an utterance unit completely severed from the preceding sentence. The prosodic difference between the RDC vs. fragment indicates that the two may not

13) The presence of a wh-phrase in the post-verbal position but the absence thereof in the pre-verbal position indicates that the acceptable version of (15) is not an RDC but a fragment. See 2.3. as to the distribution of wh-phrases.

have the same structure, contra the premise of the bi-sentential analysis.

More relevant is the fact that the RDC, but not the fragment, requires a strict identity condition with respect to the argument/event structure, mood interpretation, polarity in NPI licensing, etc. First, consider the restriction on the argument/event structure. The RDC requires a strict identity between the post-verbal element and a pre-verbal (possibly null) element, as in (16) below. In contrast, in the fragment, such an identity is not required, as in (17).

(16) a. Yuni-ka LGB-lul ilk-ess-e LGB-lul
Y.-Nom LGB-Acc read-Pst-DE LGB-Acc
'Yuni read LGB

b. * Yuni-ka LGB-lul ilk-ess-e SPE-lul.
Y.-Nom LGB-Acc read-Pst-DE SPE-Acc
'Yuni read LGB, SPE.'

c. * Yuni-ka LGB-lul ilk-ess-e SPE-to.[14]
Y.-Nom LGB-Acc read-Pst-DE SPE-also
'Yuni read LGB, SPE also.

(17) A: Yuni-ka LGB-lul ilk-ess-e.
Y.-Nom LGB-Acc read-Pst-DE
'Yuni read LGB.'

B: SPE-to$_i$ ~~[Yuni-ka e$_i$ ilk-ess-e]~~
SPE-also Y.-Nom read-Pst-DE
'SPE also.'

If the bi-sentential analysis of the RDC is strictly followed, then there seems to be no obvious reason to require that the dependents of the overtly realized predicate in the first sentence be identical to those of the covert predicate in the second sentence.[15]

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14) A pause between the predicate and the post-verbal element makes (16c) acceptable, as expected for fragments.

15) Examples like (i) below apparently violate the identity requirement. Notice, however, that the expression in the post-verbal position in (i) can be stacked in a pre-verbal position as shown in (ii):

Now turn to the difference in the identity requirement of mood interpretation. Compare the RDC in (18) and the fragment in (19).

(18) a. Yuni-ka mwues-lul ilk-ess-ni
Y.-Nom what-Acc read-Pst-QE
ecey ~~[Yuni-ka mwues-lul ilk-ess-{ni/*ta}]~~
yesterday Y.-Nom what-Acc read-Pst-QE/-DE
'What did Yuni read? {What did she read yesterday? #She read it yesterday.}'

b. nehitul ka-la ppalli ~~[nehitul ka-{la/*n-ta/*ni/*ca}]~~
you;guys go-Imp hurriedly you;guys go-Imp/Pres-DE/QE/Prop
'You guys go. {You guys go/#You are going/#Are you going/#Let's go} hurriedly.'

(19) A: Cheli-ka mwues-ul ilk-ess-ni?
Ch.-Nom what-Acc read-Pst-QE
'What did Cheli read?'

B: LGB-lul$_i$ ~~[Cheli-ka e$_i$ ilk-ess-ta].~~
LGB-Acc Ch.-Nom read-Pst-DE
'He read LGB.'

The mood in the preceding sentence in (18a) conveys an interrogative reading. So does the continuing sentence. A similar parallelism is observed in the mood interpretation of (18b). Both of the sentences involved convey an imperative reading. In contrast, the mood interpretation of a fragment may differ from that of the antecedent structure, as in (19). The mood in (19A) conveys an interrogative reading, but the fragment answer in (19B) a

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(i) Yuni-ka LGB-lul ilk-ess-e ku elyewun chayk-ul
Y.-Nom LGB-Acc read-Pst-DE that difficult book-Acc
'Yuni read LGB, that difficult book.'

(ii) a. Yuni-ka LGB(-lul) ku elyewun chayk-ul ilk-ess-e
Y.-Nom LGB-Acc that difficult book-Acc read-Pst-DE
'Yuni read LGB, that difficult book.'

b. Yuni-ka ku elyewun chayk(-ul) LGB-lul ilk-ess-e
Y.-Nom that difficult book-Acc LGB-Acc read-Pst-DE
'Yuni read that difficult book, LGB.'

declarative reading.

Another difference between the RDC vs. the fragment is observed in polarity licensing. Compare (20) and (21) below:

(20) Cheli-ka {ani-manna-ess-ni/*manna-ess-ni} amwuto?
Ch.-Nom Neg-meeto-Pst-QE/meet-Pst-QE anyone
'Did/Didn't Cheli meet anyone?'

(21) A: Cheli-ka nwuku-lul {ani-manna-ess-ni/manna-ess-ni}?
Ch.-Nom who-Acc Neg-meet-Pst-QE/meet-Pst-QE
'Who did/didn't Cheli meet?'
B: amwuto ~~[Cheli-ka e_i ani-mana-ess-ta]~~
anyone Ch.-Nom Neg-meet-Pst-DE
'No one.'

In the RDC, NPIs in the post-verbal position cannot be licensed unless the preceding predicate is negated, as in (20). In contrast, NPI fragments can be licensed even without an overt negation as in (21). (See Watanabe 2004.)

In a nutshell, the RDC differs from the fragment with respect to the prosodic structure and to various isomorphic structural requirements. It may constitute a single or multiple prosodic unit. It also requires a stricter identity condition between the 'antecedent' clause/sentence and the 'elided' clause/sentence than in the fragment. It will be discussed in the next section what causes the differences between the two.

4. A Mono-Structural, but not Mono-Clausal Analysis

The facts discussed in Section 2 and those in Section 3 seem to lead us into a somewhat paradoxical situation as to the structure of the RDC. The former facts seem to point to a sort of bi-sentential analysis, while the latter do not obviously follow from any version of bi-sentential analysis. To account for the two sets of properties that apparently conflict with each other, I consider a possibility in this section in which the RDC is derived

from a mono-sentence, though not in a mono-clause. More concretely, I propose to view the RDC as a coordination of two root clauses, where the second clause involves a leftward raising of the 'post-verbal element' followed by deletion of the remnant:[16)]

(22) $[_{Root} \ldots e_i \ldots] \ \& \ [_{Root} XP_i \ldots . \ \alpha \ [\sout{\ldots t_i \ldots .}]]$

The structure in (22) is identical to Tanaka's (2001) bi-sentential analysis except that the two root sentences are incorporated into one coordinate structure. The coordinate structure captures most of the properties that the RDC displays.[17)]

Let us consider how the coordination analysis accounts for the characteristic properties of the RDC. First, the coordinate structure naturally captures the prosodic property of the RDC. Since a coordinate structure can be a single or multiple tone unit, the optional pause between the predicate and the post-verbal element follows. Second, the condition of the identical mood interpretation also follows from the coordinate structure. Notice that no discrepant mood interpretation is possible in coordination at all, not even in the *-ko* coordinate structure as pointed out in Chung (2005). Third, the restriction on the wh-licensing within the RDC follows from an independent requirement that an overt [+wh] C requires an overt wh-phrase within its probe domain, as mentioned in Section 2.3. Fourth, the restriction on the NPI distribution follows from the coordination analysis. Deletion in coordination fully copies the antecedent with respect to negation.

(23) a. Cheli-ka ka-ess-ko Yuni-to-ya.
Ch.-Nom go-Pst-Conj Y.-also-YA
'Cheli went and Yuni did too.'
'Cheli went and Yuni didn't.'

16) The root clause may well be interpreted as an intonation phrase as discussed in C-H Lee (2009) and references cited therein.

17) The root property and the isomorphic argument condition do not seem to automatically follow from this coordinate structure at the first sight. See below, however.

b. Cheli-ka an-ka-ess-ko Yuni-to-ya.
Ch.-Nom Neg-go-Pst-Conj Y.-also-YA
'Cheli didn't go and Yuni didn't, either.'
'Cheli didn't go and Yuni did.'

Interpretation of the second conjunct indicates that the presence or absence of negation in the second conjunct is fully dependent on the presence or absence of negation in the preceding conjunct. Such a parallelism required in the interpretation of the ellipsis site in a coordinate structure may account for the NPI distribution in the RDC, if it is viewed as an instance of coordination. Fifth, the scope facts in the RDC also follow from the coordination analysis. Since the quantifier in the second conjunct has been raised, the one in the left conjunct, whether overt or covert, must be raised at LF due to the economy theory of QR in the sense of Fox (1999), having wide scope over negation. Sixth, the coordination analysis is also free of the PBC problem, just as in the bi-sentential analysis since no remnant movement is postulated.

At the first sight, the root property and the isomorphic argument structure condition that the RDC displays do not seem to automatically follow from the coordinate structure in (22). Notice that a coordinate structure can in general be embedded[18] and a conjunct of a coordinate may have a different argument structure from that of the other conjunct. I speculate that root clauses carry some special semantic and phonological properties that embedded clauses do not display. First, as discussed in C-H Lee (2009) and references cited there, only the root clause carries the intonation that decides on the sentence type. Second, parenthetical expressions have a root interpretation only (McCawley 1982). Third, vocatives, which are present only in the root, can show up in more than once in a coordinate structure, as in (24).

(24) Cheli-ya, sakwa mek-ko, Yuni-ya, pay mek-ela.

18) For a similar reason, one of the reviewers casts doubt on the coordination analysis.

Ch.-Voc apple eat-and Y.-Voc pear eat-Imp
'Cheli, eat apples and Yuni, eat pears.'

Thus, it seems plausible to claim that there is a designated functional category for a root clause that an embedded clause lacks.

The coordination analysis of the RDC well meshes with the three properties. Given the designated functional category uniquely present in the root clause, we can say that XP in (22), the so-called 'post-verbal' element in the RDC, moves to the SPEC of the designated functional category, parallel to the position in which a vocative phrase, a parenthetical element, or the sentence typing intonation is licensed. As extensively discussed in C-H. Lee (2009), both conjuncts may carry the sentence typing intonation. Also the post-verbal element in the RDC conveys a parenthetical reading. Vocatives phrases can show up in a post verbal position in RDC, as shown below:

(25) ecey ceychwulha-ess-eyo, sensayngnim, wuli swukcey.
yesterday hand;in-Pst-DE Sir(Voc.) our assignment
'We handed in our assignment yesterday.'

J-S Lee (2009:139) claims that the coordinate analysis of the RDC fails since presence of an overt coordinate conjunction leads to an ungrammatical status for sentences like (26):

(26) Cheli-ka cohaha-n-ta (*kuliko) Yuni-lul
Ch.-Nom like-Pres-DE and Y.-Acc
'Cheli likes Yuni.'

It is not impossible, however, to insert an overt coordinate conjunction between a predicate and a post-verbal element, especially when the post-verbal element bears some semantic/phonological weight, as shown in the following examples:[19)]

19) See C-H Lee (2009) and Yoon and Lee (2009) for a similar observation that heaviness plays a role in acceptability of RDC.

(27) a. Cheli-ka tayhak-eyse kanguyha-n-ta,
Ch.-Nom college-at teach-Pres-DE
kuliko (kuketo) choysocwuuy ilon-ul.
and (furthermore) minimalist theory-Acc
(Lit) 'Cheli teaches at a college and furthermore (he teaches) the minimalist theory.'

b. Cheli-ka imi ecey ttena-ess-ta
Ch.-Nom already yesterday leave-Pst-DE
kuliko mopsi hwa-lul nay-myense.
and very anger-Acc show-while
'Cheli left yesterday and (he did,) while being very upset.'

It is not clear why semantic/phonological weight plays a role in the acceptability of RDC, but the existence of sentences like (26) does not rule out the possibility of analyzing the RDC as a coordinate structure.

5. Implications

The current paper has argued that the RDC in a language like Korean is best analyzed as a coordinate structure of a two identical clauses in which the 'post-verbal element' in the second conjunct clause has in fact undergone a leftward movement, while the rest of the clause has undergone a massive deletion. The proposed analysis has accounted for various syntactic and prosodic properties that the RDC displays. Given the correctness of the proposed elliptical coordination structure, the RDC in Korean bears some theoretical implications. First, the RDC does not constitute a counterexample to Kayne's (1994) claim against a rightward movement. The apparent rightward movement in the RDC can be reanalyzed as an instance of leftward movement in a separate root clause followed by an ellipsis of an identical string. Second, the RDC, however, does not necessarily lend support to Kayne's (1994) universal word order hypothesis, pace J-S Lee (2007a,b, 2009). The apparent leftward predicate (X^0) movement need not be postulated to derive the RDC. Third, related to the second point, the RDC is not necessarily incompatible with the phrasal affix analysis of verbal endings

in Korean (Yoon 1993, 1994, 1997), given that the RDC can be derived without postulating a leftward predicate movement.

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