

Remarks on Right Dislocation Construction in Korean: Challenges to bi-clausal analyses*

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This paper investigates the syntax and semantics of postverbal elements in so-called Right Dislocation Constructions (RDCs) in Korean. Recently, a growing number of researchers have argued that RDCs in Korean must be analyzed under the assumption that RDCs contain a bi-clausal structure. This paper aims to closely re-examine and evaluate the validity of current bi-clausal analyses. In particular, I discuss three representative approaches couched under bi-clausal analyses: (i) the scrambling-based analysis, (ii) the *pro*-predicate based analysis, and (iii) the fragment-based analysis. I show that each of these approaches faces non-trivial challenges. Specifically, I show that the syntax of postverbal elements cannot be equated to either scrambling or a regular fragment answer. An array of intriguing contrasts between RDCs and scrambling, and between RDCs and fragments are presented in this paper. I also present a new set of challenges to the claim that postverbal elements are licensed by a *pro*-predicate.

Keywords: right dislocation in Korean, bi-clausal analysis, scrambling, *pro*-predicate, fragment

1. Introduction

Korean is well-known to be a head-final language where the matrix verb occupies the final position in canonical orderings. An important fact that cannot be dismissed, however, is that in Korean various types of elements may appear in postverbal position as well. Major catego-

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ries that can appear in the postverbal position are exemplified in (1) and (2). As shown in (1), arguments such as the subject, the object, the indirect object, and CP complements may be located to the right of the verb. As illustrated in (2), a variety of predicative projections such as adverbial phrases, prepositional phrases, relative clauses, and small clause predicates may also appear in postverbal position.

(1) *Arguments in postverbal position*

- a. ___ ecey Yenghi-lul manna-ss-e **Cheli-ka** S
 yesterday Y.-Acc meet-Past-Dec C.-Nom
 ‘Cheli met Yenghi yesterday.’
- b. Cheli-ka ecey ___ manna-ss-e **Yenghi-lul** O
 C.-Nom yesterday meet-Past-Dec Y.-Acc
 ‘Cheli met Yenghi yesterday.’
- c. Cheli-ka ecey ___ chayk-ul ponay-ss-e **Yenghi-eykey** IO
 C.-Nom yesterday book-Acc send-Past-Dec Y.-Dat
 ‘Cheli sent a book to Yenghi yesterday.’
- d. Cheli-ka na-hanthey ___ malhay-ss-e [**caki-ka com nucnunta-ko**] CP
 C.-Nom I-Dat say-Past-Dec self-Nom a.bit late-C
 ‘Cheli told me that he would be a bit late.’ (Yoon 2013)

(2) *Predicative projections in postverbal position*

- a. Cheli-ka ___ Yenghi-lul manna-ss-e **ecey** AdvP
 C.-Nom Y.-Acc meet-Past-Dec yesterday
 ‘Cheli met Yenghi yesterday.’
- b. Na-nun ecey ___ cha-lul sa-ss-e **Seoul-eyse** PP
 I-Top yesterday car-Acc buy-Past-Dec S.-Loc
 ‘I bought a car in Seoul yesterday.’
- c. Na-n [___han sonyen]-ul manns-e [**acwu ttokttok-hako calsayngki-n**] RC
 I-Top one boy-Acc met-Dec very smart-and handsome-RC
 ‘I met a boy who is very smart and handsome.’
- d. Nay-ka pyek-ul chilhay-ss-e **hayah-key** SC-predicate
 I-Nom wall-Acc paint-Past-Dec white-Dep
 ‘I painted the wall white.’
- e. SNU-ka Cheli-lul ppop-ass-e **kyoswu-lo** SC-predicate
 SNU-Nom C.-Acc hire-Past-Dec professor-as
 ‘SNU hired Cheli as a professor.’

These types of constructions have often been called Right Dislocation Constructions (RDCs).¹⁾ Following the practice of the field, I will use RDC as a cover term to refer to the construction in which an overt element linearly follows the matrix verb in Korean. I call the clause which preverbal elements merge into *the host clause*, and the constituent that appears in postverbal position *the appendix* (see Sells 1999 for the original terms). In this paper, however, I use these terms only at the descriptive level and will not argue for a right-dislocation analysis for the constructions shown above. Rather, I focus on understanding the syntax and semantics of postverbal elements in RDCs by evaluating the influential claim that RDCs contain a bi-clausal structure.

In particular, I critically review the three most representative bi-clausal approaches to RDCs: (i) the scrambling-based bi-clausal analysis, (ii) the *pro*-based bi-clausal analysis, and (iii) the fragment-based bi-clausal analysis. This paper attempts to show that each of these approaches faces some non-trivial challenges. It is shown that the syntax of postverbal arguments cannot be treated in the same way as (leftward) scrambled arguments or regular fragments - especially, with respect to Case connectivity effects, negation, islands, floating quantification, and Case drop phenomena. I also present a new set of data which lead us to question the validity of the *pro*-based analysis of RDCs.

The paper is organized as follows. In section 2, I provide a brief overview of current approaches to RDCs in Korean. Two major issues in analyzing RDCs are introduced there. In section 3, I present the reason that the syntax of postverbal arguments cannot be explicated by regular scrambling. In section 4, I argue that the *pro*-predicate analysis is too weak to cover the syntactic restrictions imposed on postverbal elements. In section 5, I show that postverbal arguments and fragments show distinct characteristics in their syntax and semantics though they certainly share some interesting properties. Section 6 sum-

1) This construction has also been called a right dislocated construction (Chung 2009), a postverbal constituent (PVC) (Kural 1997), *hwupochwung* 'afterthought' in Korean (C-H Lee 2009, 2013), and afterthought (Kim and Park 2010). The term *RDC* glosses over the subtle distinctions in theoretical imports between the various terms employed in the literature.

marizes the paper.

2. The State of the Art: The Overview

The existence of RDCs in head-final languages like Korean poses an immediate question as to the nature of the operation that generates an element to the right of the verb. A number of interesting hypotheses have been proposed in the literature. Though details may differ, two major issues are intertwined in the analyses of RDCs. One is whether the relevant construction involves a mono-clausal or bi-clausal structure. The other is whether postverbal elements undergo syntactic movement or whether they are base-generated. The Major approaches to RDCs in head-final languages are summarized in (3) (see also Kim and Park 2009 and Yim 2013 for a review).

(3) Major approaches to RDCs in head-final languages

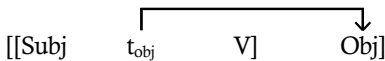
Mono-clausal analyses	Movement	rightward scrambling analysis: (4)a
		leftward scrambling + rightward stranding: (4)b
		rightward remnant VP movement: (4)c
	Base-generation	base-generation of SVO (anti-symmetric): (5)a base-generation at the right periphery: (5)b
Bi-clausal analyses	Movement	leftward scrambling + ellipsis: (6)a
		fragment + ellipsis: (6)b
	Base-generation	<i>pro</i> -predicate: (7)a
		conjunction reduction: (7)b

Consider first the mono-clausal movement analyses. Under this approach, it is assumed that there is one and only one clausal structure in RDCs, and the postverbal argument is a result of (multiple) clause-internal movement. Some studies have argued that postverbal arguments may undergo *rightward movement* to the right of the verb (see Choe 1987, Mahajan 1988, Kural 1997, Takano 2007, Ko and

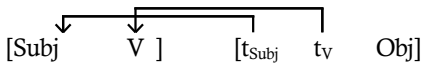
Choi 2009, Manetta 2012). This is described in (4)a. Others argue that the postverbal argument itself does not undergo movement, but all other elements move leftward, stranding an argument to the right of the verb, as in (4)b (see Mahajan 1997). In replying to the rightward stranding analysis, Bhatt and Dayal (2007) argue that the postverbal argument is a consequence of rightward remnant VP-movement: namely, that the verb first undergoes overt head-raising to a higher functional projection, and the remnant VP containing the trace of the verb and an argument undergoes rightward movement, as illustrated in (4)c. (cf. a response to Bhatt and Dayal (2007) by Manetta (2012)).

(4) *Mono-clausal movement approaches*

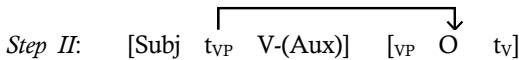
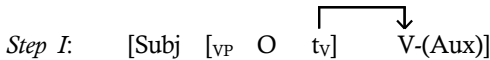
- a. Rightward movement (e.g. Choe 1987, Kural 1997, Takano 2007, Ko and Choi 2009)



- b. Rightward stranding (e.g. Mahajan 1997)



- c. Rightward VP movement (e.g. Bhatt and Dayal 2007)



Another group of researchers argues for a mono-clausal base-generation analysis to RDCs. Adopting the anti-symmetric approach by Kayne (1994), J-S Lee (2007, 2009), for instance, argues that postverbal objects are base-generated to the right of the verb even in head-final languages like Korean, and that all other orderings are derived from the basic SVO order via massive leftward movements (cf. Chung 2009, 2010, 2012 for a series of responses to this approach). C-H Lee (2009, 2013), on the other hand, argues that postverbal arguments are base-generated at the right periphery of the sentence, in ΩP, which serves as the intonational edge. These proposals are schematized in (5)a and (5)b, respectively.

(5) *Mono-clausal base-generation approaches*

- a. Rightward base-generation at the thematic position (e.g. J-S Lee 2007, 2009)

$$[{}_{CP} C [{}_{TP} T [{}_{VP} S [{}_{VP} V O]]]]$$

- b. Rightward base-generation at the intonational edge (e.g. C-H Lee 2009, 2013)

$$[{}_{\Omega P} [{}_{CP} [{}_{TP} S [{}_{VP} e_i V] T] C] \Omega O_i]$$

Contra mono-clausal analyses such as those schematized in (4) and (5), the other school of researchers argues for a bi-clausal analysis of RDCs with varying assumptions on the syntax of the appendix. Specifically, the proponents of bi-clausal movement analyses postulate that RDCs contain a covertly coordinated structure and that postverbal elements in the appendix undergo leftward movement prior to clausal ellipsis. These are illustrated with (6)a and (6)b. As depicted in (6)a, a large group of studies argue that postverbal arguments undergo leftward scrambling prior to clausal ellipsis (see Kuno 1978, Tanaka 2001, Abe 2004, among others; cf. Takita 2009, Whitman 2000 for slightly different implementation). More recently, it has also been suggested that postverbal arguments must be treated on a par with fragments, leaving the nature of the fragment rather open, as in (6)b (see Chung 2009, 2012, Park and Kim (2009, *et passim*), Kim and Hong 2013).

(6) *Bi-clausal movement approach*

- a. Leftward scrambling approach (e.g. Kuno 1978, Tanaka 2001, Abe 2004, Takita 2009)

$$[{}_{CP} \text{Subj } pro_1 V] + [{}_{CP} \text{Obj}_1 [{}_{TP} \text{Subj } t_{obj} V]]$$

leftward scrambling + TP ellipsis

- b. Fragment approach (e.g. Chung 2009, 2012, Park and Kim 2009, Kim and Hong 2013)

$$[{}_{CP} \text{Subj } pro_1 V] + [{}_{XP} \text{Obj}_1 [{}_{\text{Subj } t_{obj}} V]]$$

fragment + XP ellipsis

Lastly, it has also been proposed that postverbal elements can be licensed without any movement in a bi-clausal structure. A series of

work by W Lee and J H-S Yoon, for instance, argues that postverbal elements are licensed by a *pro*-predicate without ellipsis or movement (see, in particular, W Lee 2009, 2010, J H-S Yoon 2013). See (7)a for an illustration. Under this approach, the postverbal element is semantically licensed by the existence of a null predicate in the appendix - which can be nominal or verbal. A view based on phonological reduction has also been advanced. Kim and Park (2010), in particular, argue that RDCs must be understood as a conjunction reduction construction - which is a purely phonological phenomenon. Under this proposal, phonologically identical parts can be elided in each clause, and this may happen even if the elided parts do not form a constituent, as in (7)b. On this view, RDCs have nothing to do with *pro*-predicates or movement of postverbal elements.

(7) *Bi-clausal base-generation approach*

- a. *pro*-predicate analysis (e.g. W Lee 2009, 2010, and Yoon 2013)

[_{CP} Subj (*pro*_i) V] + [_{XP} Obj_i *pro*-predicate] (where X = N or V)

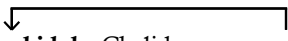
- b. Conjunction reduction analysis (e.g. Kim and Park 2010)

[_{CP} Subj (O) V] + [_{CP} Subj O V]

Notably, some crucial weaknesses of mono-clausal analyses have been widely discussed in recent studies (see, in particular, Chung 2009, 2010, 2012, Park and Kim 2009, Yoon 2013, Yim 2013), which I will not repeat here. Conversely, however, the potential weaknesses of bi-clausal analyses have often been overlooked and have not been closely examined in detail (cf. J-S Lee 2009 and a response to it by Chung 2010). Moreover, it is not clear how the different types of bi-clausal analyses in (3) deal with the problems that the current studies point out against the mono-clausal analyses, either. The purpose of this paper is to undertake such a task. By evaluating the validity of different versions of bi-clausal analyses, this paper aims at contributing to a deeper understanding of RDCs and their theoretical implications for future research.

3. Leftward Scrambling ≠ RDC

Let me first address some crucial problems with the analysis which assumes that RDCs involve leftward scrambling, described in (6)a. Following a seminal work by Kuno (1978), a number of studies argue that RDCs contain a bi-clausal structure. Furthermore, postverbal arguments are assumed to undergo leftward scrambling while the rest of the appendix clause is elided to yield the RDC (e.g. Whitman 2000, Tanaka 2001, Abe 2004, Takita 2009). For instance, in examples like (1)b, repeated here as (8), the postverbal object *Yenghi-lul* undergoes leftward scrambling and the rest of the clause, TP, undergoes deletion under identity. For convenience, I call this the *L-scrambling approach*.

- (8) [Cheli-ka ecey mannasse] + [Yenghi-lul Cheli-ka ecey __ mannasse]
 C.-Nom yesterday met Y.-Acc C.-Nom yesterday met
 ‘Cheli met Yenghi yesterday.’
- 

As extensively reviewed in Chung (2009), the L-scrambling approach (in fact, bi-clausal analyses in general) has a significant advantage in explaining the fact that RDCs in Korean are root phenomena. As shown by the contrast between (9)b and (9)c, the appendix *Yuni-lul* may be located to the right of the matrix verb, but not to the right of an embedded verb.

- (9) a. Na-nun [Cheli-ka Yuni-lul manna-ess-ta-ko] sayngkakha-n-ta
 I-Top C.-Nom Y.-Acc meet-Past-Dec-C think-Pres-Dec
 ‘I think that Cheli saw Yuni.’
 b. *Na-nun [Cheli-ka manna-ess-ta-ko Yuni-lul] sayngkakha-n-ta
 I-Top C.-Nom meet-Past-Dec-C Y.-Acc think-Pres-Dec
 ‘I think that Cheli saw Yuni.’
 c. Na-nun [Cheli-ka manna-ess-ta-ko] sayngkakha-n-ta Yuni-lul
 I-Top C.-Nom meet-Past-Dec-C think-Pres-Dec Y.-Acc
 ‘I think that Cheli saw Yuni.’ (Chung 2012: 706)

If *Yuni-lul* in (9)b and (9)c were located to the right of the verb via

rightward movement or base-generation, there is no reason to expect (9)b to be ungrammatical, in contrast to (9)c.²⁾ If, however, postverbal arguments must be generated in a separate clause from the matrix verb, as in (8), it is expected that they should not be able to appear in the middle of the host clause. Given that (covert) coordination happens only at the clausal level, there is no way of generating arguments like *Yuni-lul* to the right of the embedded verb (see Chung 2009 for an analysis in which the RDC is a coordination of two root clauses).

The L-scrambling approach, however, faces some non-trivial difficulties in explaining the differences between scrambling and the syntax of postverbal arguments. On this approach, it is assumed that postverbal arguments such as *Yenghi-lul* in (8) undergo leftward scrambling prior to clausal ellipsis. Thus, any discrepancy between leftward scrambling and RDCs would pose potential challenges to the proposal.

One such important difference can be observed in scopal interactions. As shown in (10)a, leftward scrambling of the object quantifier, *twul-ta* may result in scope ambiguity: the object may scope over or under the negation. By contrast, the postverbal object *twul-ta* in (10)b must take wide scope over the negation. If postverbal arguments in RDCs are derived via leftward scrambling, we have no obvious reason to expect the contrast between (10)a and (10)b. (The data in (10)b is from Chung (2009: 11), and the judgment for (10)a is mine.)

(10) *QP-Neg interactions*

- a. Twul-ta₁ Cheli-ka t₁ manna-ci ani-ha-ess-e. *L-scrambling*
 wo-all C.-Nom meet-CI not-do-Past-Dec
 ‘Cheli did not meet two of them.’ (two>>Neg, Neg>>two)
- b. Cheli-ka manna-ci ani-ha-ess-e **twul-ta₁** *RDC*
 C.-Nom met-CI not-do-Past-Dec two-all
 ‘Cheli met neither of them.’ (two>>Neg, *Neg>>two)

2) C-H Lee (2009, 2013) would be a possible exception to this criticism. Since C-H Lee assumes that postverbal elements are base-generated at the right periphery above the matrix C, it is expected that RDCs would be a root phenomenon even though they are mono-clausal. The fundamental question remains open, however, which is how and why postverbal elements can be base-generated at the right periphery above C, and how this would affect the semantic interpretation.

Moreover, leftward scrambling and postverbal arguments show different scopal behavior in QP-QP interactions as well (but in the reserve way of the pattern in (10)). This is illustrated with (11). As shown in (11)a, leftward scrambling of an object quantifier over a subject quantifier results in scope ambiguity: *motun yenghwa-lul* ‘all movies’ can scope over or under the subject *twu ai-ka* ‘two children’. By contrast, the postverbal object in (11)b must take narrow scope under the subject (see Ko and Choi 2009 for experimental evidence). If the postverbal argument in (11)b undergoes leftward scrambling, same as in (11)a, the contrast between (11)a and (11)b would remain a puzzle.

(11) *QP-QP interactions*

- a. *Motun yenghwa-lul twu ai-ka po-ko iss-e-yo. L-scrambling*
 All movies-Acc two child-Nom see-Prog be-Dec-Polite.
 ‘Two children are watching all the movies.’ (all>>2, 2>>all)
- b. *Twu ai-ka po-ko iss-e-yo motun yenghwa-lul RDC*
 two child-Nom see-Prog be-Dec-Polite all movies-Acc
 ‘Two children are watching all the movies.’ (*all>>2, 2>>all)

Crucially, note that the scope interaction in (11) has the opposite pattern from the one in (10). In (10), the postverbal argument *twul-ta* must take wide scope over the negation. By contrast, the postverbal argument in (11)b must take narrow scope under the subject quantifier. One might reasonably wonder why postverbal arguments must sometimes take scope over a matrix element (e.g. negation), but other times under a matrix element (e.g. subject). All things being equal, the scopal differences between the scrambled object and postverbal object shown in (10) and (11) would not be expected under the L-scrambling approach, let alone the difference between (10)b and (11)b (cf. Park and Kim 2009).³⁾

3) Park and Kim (2009, section 4) explain the contrast between (10) and (11) on the basis of scope parallelism in RDCs. Ko and Choi (2009) also report that variable binding shows the same pattern as the scope data seen in (11): the subject in the SVO order can bind the postverbal object, but not the scrambled object with OSV ordering. The binding data again suggest that L-scrambling and RDCs have different syntactic consequences.

Another major difference between scrambling and RDCs can be found in island contexts. It has been reported that leftward scrambling cannot occur across island boundaries, whereas postverbal elements may violate certain types of islands (see, in particular, Choe 1987, Park and Kim 2009, W Lee 2010, Chung 2012, Yoon 2013). Most interestingly, postverbal elements may modify an NP in the host clause, seemingly violating the Left Branch Condition (LBC: Ross 1969). In (12)b, for instance, the relative clause can modify *cha* ‘car’ in the host clause even though leftward movement of relative clauses is strictly banned in Korean, as in (12)a. If the postverbal relative clause in (12)b is derived from (12)a, it would be puzzling how (12)b could be rendered grammatical.⁴⁾

(12) a. *[Cinan pen-kwa ttokkathu-n] na-nun [__ cha]-lul pilliesse.
 last time-as same-RC I-Top car-Acc borrowed
 ‘I borrowed the same kind of car as last time.’

b. Na-nun [__ cha]-lul pilliesse [cinan pen-kwa ttokkathu-n]
 I-Top car-Acc borrowed last time-as same-RC
 ‘I borrowed the same kind of car as last time.’

4. *Pro*-predicate ≠ RDC

Proponents of the *pro*-predicate analysis, described in (7)a, argue that postverbal elements do not undergo movement, but rather are licensed

4) Park and Kim (2009) suggest that LBC violation can be remedied in (12)b due to repair-by-ellipsis (adopting Grebenyova 2005). It is not clear, however, why island violation is repaired only in LBC contexts. It is generally true that RDCs are sensitive to other types of islands (Choe 1987; see (38) in section 5). If repair-by-ellipsis applies to RDCs in general, we should also expect that other types of island effects could be lifted, contrary to the facts. Ahn and Cho (2014) suggest that only PF-islands can be repaired by ellipsis. On their view, LBC is a PF-island violation that can be repaired, whereas clausal islands are LF-islands that cannot be repaired (adopting Merchant 2001). It is not clear, however, why only LBC must belong to PF-islands and how reliable or stable the repair-by-ellipsis effects are (see Atakan 2012 for variability in island repair). More importantly, we will see evidence that clausal islands (so-called LF-islands) can be repaired in ellipsis in Korean (e.g. (37)), and that violation of LBC (so-called PF-islands) cannot be repaired in certain cases (e.g. (15)), in contrast to (12)b (see also notes 5 and 14 for further comments).

by a *pro*-predicate. Under this proposal, *Yenghi-lul* in (13) is licensed by a null verbal predicate, and postverbal modifiers are licensed by a null nominal predicate, as illustrated in (14) (see W Lee 2009, 2010, and Yoon 2013).

- (13) [Cheli-ka [ecey mannasse]_i] + [Yenghi-lul VP_i]
 C.-Nom yesterday met Y.-Acc
 ‘Cheli met Yenghi yesterday.’

- (14) Na-nun cha-lul_i pilliesse [[cinan pen-kwa ttokkathu-n] NP_i]
 I-Top car-Acc borrowed last time-as same-RC
 ‘I borrowed the same kind of car as last time.’

This approach inherits the general strength of bi-clausal analyses: namely, that RDC is a root phenomenon so that postverbal elements appear to the right of the matrix verb only. Unlike the L-scrambling approach, however, *pro*-based analyses have the advantage of explaining postverbal modification without imposing any burden on the syntax. Under this approach, it naturally follows why relative clauses such as (12)b (=14) - which cannot undergo leftward scrambling - may appear in postverbal position. Simply put, postverbal relative clauses are base-generated in the appendix and licensed by a null nominal predicate in the semantics. There is no reason to postulate syntactic movement of adnominal phrases in the first place. The same argument goes for postverbal argument phrases such as (13).

The *pro*-predicate analysis, however, can be seriously challenged by the fact that not all adnominal phrases may appear in postverbal position. Specifically, this analysis over-generates postverbal elements that are associated with recursive NPs - which are in fact ungrammatical in Korean. As shown in (15), when adnominal phrases are further embedded within other adnominal NPs, postverbal modification becomes impossible. This is in sharp contrast to (14). In (15)b, *Yenghi-uy* cannot appear in the appendix when it is associated with the complex nominal phrase, *emma-uy cha* ‘mother’s car’. If postverbal phrases can be licensed by a null nominal predicate, as argued

for with (14), it is puzzling why the same operation cannot save the RDCs presented in (15)b.⁵⁾

(15) *Emergence of LBC*: association with a complex NP

- | | | | | | |
|----|-------------------------------------|-----------|-----------|-----------------|-------------------|
| a. | Na-nun | Yenghi-uy | emma-uy | cha-lul | pilli-ess-e. |
| | I-Top | Y.-Gen | mommy-Gen | car-Acc | borrow-Past-Dec |
| | 'I borrowed Yenghi's mother's car.' | | | | |
| b. | *Na-nun | emma-uy | cha-lul | pilli-ess-e | Yenghi-uy. |
| | I-Top | mommy-Gen | car-Acc | borrow-Past-Dec | Y-Gen |
| | 'I borrowed Yenghi's mother's car.' | | | | |

Furthermore, it is notable that there is an important asymmetry between the subject and the object in licensing postverbal predicates. Adnominal phrases in postverbal position may readily be associated with the (deep) object, but not with the subject. As shown in (16)a, the adnominal clause 'who wears a big red hat' must be associated with the object *Yenghi*, and not with the subject *Cheli*. This contrasts with the interpretation of participial adjunct clauses such as (16)b,

5) Note that (15)b cannot be explained by Kuno's (1978) generalization that the host clause must be a complete utterance by itself. In (15)b, the host clause is indeed complete, yet adnominal phrases cannot be licensed in postverbal position. Since *pro*-predicate approaches rely on Kuno's generalization to explain unacceptable RDCs, the ungrammaticality of (15)b would be puzzling. As a reviewer suggests, this example shows that the syntactic structure of complex NPs (instead of "completeness" of the host clause) matters. The structure of the complex NP at stake in (15)b is as shown in (i):

(i) [DP [DP [*Yenghi-uy*] *emma-uy*] *cha*]

If we assume that (15)b cannot be saved because *emma-uy cha* does not form a constituent, the ungrammaticality of (15)b might be accommodated (but see also (46)B which shows that such non-constituent ellipsis is indeed possible in fragments, in contrast to (15)b: see note 14). It is also noteworthy that when a part-whole relationship holds between two adnominal phrases in object position, right-dislocation out of a complex NP seems possible:

(i)	Cheli-ka	phal-uy	kkes-ul	chap-ass-e	Yuni-uy
	C.-Nom	arm-Acc	end-Acc	hold-Past-Dec	Y.-Gen
	'Cheli hold Yuni by the end of the arm.'				

The grammaticality of (i) suggests that not only the depth of embedding but also the thematic relationship between adnominal phrases matters in LBC violation and its obviation in RDCs. The current *pro*-based analysis does not make a legitimate distinction between cases like (i) vs. cases like (15)b.

where such association with the subject is strongly preferred. If a post-verbal adnominal clause can be licensed by a null predicate, it is mysterious why the adnominal clause cannot be associated with the subject in (16)a, which is in fact semantically feasible as seen in (16)b. The same point can be made with genitive-marked adnominal phrases, as shown by the contrast between (17)a and (17)b.

(16) *Subject-object asymmetry in association with postverbal adnominals*

- a. Cheli-ka Yenghi-lul manna-ss-e **ppalkah-ko khun moca-lul ssu-n**.
 C.-Nom Y.-Acc meet-Past-Dec red-and big hat-Acc wear-RC
 ‘Cheli met Yenghi, who wears a big red hat. (who=Yenghi)’.
 *‘Cheli met Yenghi, who wears a big red hat. (who=Cheli)’.
- b. Cheli-ka Yenghi-lul manna-ss-e **ppalkah-ko khun moca-lul ssu-ko**.
 C.-Nom Y.-Acc meet-Past-Dec red-and big hat-Acc wear-Prog
 ‘Cheli met Yenghi, wearing a big red hat. (=Cheli is wearing a big red hat)’.
 *‘Cheli met Yenghi, wearing a big red hat. (=Yenghi is wearing a big red hat)’.

(17) *Subject-object asymmetry in association with postverbal adnominals*

- a. Cheli-ka apeci-lul manna-ss-e **Yenghi-uy**
 C.-Nom father-Acc meet-Past-Dec Y.-Gen
 ‘Cheli met Yenghi’s father.’ [object-orientation]
- b. *Apeci-ka Cheli-lul manna-ss-e **Yenghi-uy**
 father-Nom C.-Acc meet-Past-Dec Y.-Gen
 ‘Yenghi’s father met Cheli.’ [subject-orientation]

The following contrast in floating quantification poses a further challenge to the *pro*-based analysis. There is a subject-object asymmetry in the licensing of floating quantifiers in RDCs as well. As shown in (18)a, a genitive-marked numeral quantifier such as *sey-myeng-uy* cannot appear in postverbal position if associated with the subject. By contrast, a genitive-marked quantifier as in (19)a may occupy postverbal position if associated with the object. Moreover, the asymmetry between the subject and the object disappears if the floating quantifier changes to bear structural Case such as nominative or accusative, as in (18)b and (19)b.⁶

(18) *Subject-oriented numeral quantifier*

- a. *Haksayngtul-i tambay-lul phiw-ess-e **sey-myeng-uy**
 students-Nom cigarette-Acc smoke-Past-Dec 3-Cl-Gen
 ‘Three students smoked a cigarette.’
- b. Haksayngtul-i tambay-lul phiw-ess-e **sey-myeng-i**
 students-Nom cigarette-Acc smoke-Past-Dec 3-Cl-Nom
 ‘Three students smoked a cigarette.’

(19) *Object-oriented numeral quantifier*

- a. Haksayngtul-i tambay-lul phiw-ess-e **sey-kap-uy**
 students-Nom cigarette-Acc smoke-Past-Dec 3-Cl-Gen
 ‘Students smoked three packs of cigarettes.’
- b. Haksayngtul-i tambay-lul phiw-ess-e **sey-kap-ul**
 students-Nom cigarette-Acc smoke-Past-Dec 3-Cl-Acc
 ‘Students smoked three packs of cigarettes.’

The contrast between (18)a and (19)a, alongside the lack of contrast between (18)b and (19)b, would not be expected under a theory in which all of these sentences belong to the same type of construction. Crucially, the quantifiers in (18)a and (19)a are clearly adnominal, whereas the quantifiers in (18)b and (19)b can be categorized as adverbial (see Ko 2007, *in press*). If postverbal modification can be licensed by a null predicate, it is not clear why the type of quantifier and the type of association matter, as shown above.

Moreover, the fact that postverbal arguments show peculiar scopal behavior as seen in (10)-(11) would not be explained under the *pro*-predicate analysis. If postverbal elements are base-generated in the appendix without any movement, it is not obvious how they could have a scope relationship with a quantifier or negative head in the

6) A reviewer notes that (19)a is slightly degraded though it is not as bad as (18)a, and finds that (18)a can be rendered grammatical if *-uy* is omitted. (19)a is grammatical to me and I have no further comment on it. A cautionary note on Case-drop in (18)a is in order, however. Under neutral contexts, Caseless numerals are interpreted as an adnominal modifier, which allows ‘at least’ *n* readings. However, when a numeral is exhaustively focused and interpreted as ‘exactly *n*’, its syntax and semantics is comparable to adverbial quantifiers (see Ko *in press*: Chapter 3 for extensive discussion). I assume that speakers may accept (18)a without *-uy* when the numeral receives exhaustive focus and interpreted in the same way as (18)b, as an adverbial quantifier.

host clause across a clausal boundary.⁷⁾

5. Fragments or not?

In the preceding sections, we have seen some challenges that the scrambling-based and *pro*-based approaches face in explaining RDCs in Korean. In this section, let us turn to the most recent bi-clausal approach to RDCs, the fragment-based approach. Specifically, recent studies have suggested that postverbal elements may correspond to a fragment answer in Korean (e.g. Chung 2009, 2012, Park and Kim 2009, Kim and Hong 2013). To the best of my knowledge, Chung (2009) is the first to raise the possibility that the postverbal element in the RDC in Korean can be assimilated to a fragment. In particular, Chung (2009, 2012) argues that postverbal elements in the RDC move to the specifier of a designated functional category, parallel to the position in which a vocative phrase, a parenthetical element, or sentence intonation is licensed. Chung (2009, 2012) also argues that the appendix in the RDC undergoes massive ellipsis except for the fronted element, along the similar line to Merchant's (2004) analysis of sentence fragments. Park and Kim (2009) also mention that the "rejoinder" (i.e. postverbal element in the appendix) might be some sort of fragment that is sensitive to island effects. Crucially, however, the previous studies remain rather vague on how similar and dissimilar the syntax of postverbal elements and the syntax of fragments in Korean are (cf. Chung 2009).⁸⁾

7) For the sake of space, I do not review the conjunction reduction approach by Kim and Park (2010). The conjunction reduction approach argues that phonologically identical parts can be elided under PF-identity. The fact that syntactic structure affects the (un)grammaticality of RDCs, as seen in this section, would not be expected under the analysis.

8) Chung (2009) mentions several differences between fragments and RDCs in Korean: they behave differently in prosody, argument structure matching, mood/force interpretation, and NPI licensing. Chung (2009) argues that the differences can be derived from the hypothesis that RDCs are elliptical coordinate structures, unlike fragments. In section 5.2, however, we will see further contrasts between the two, which I believe cannot be attributed to the syntax of coordination. In particular, it is not obvious to me how the discrepancies between fragments and RDCs in Case

In this section, I closely examine the question of whether postverbal arguments in RDCs can be treated in the same way as sentence fragments, and argue that RDCs significantly differ from fragments. In section 5.1, I first consider some similarities between the two concerning Case connectivity, binding, scope, and island effects, and turn to differences between the two in section 5.2.

5.1. Like Fragments

Postverbal arguments and fragment answers do share some properties (cf. Chung 2009, 2012, Kim and Hong 2013 for previous discussion). Consider first Case connectivity, illustrated in (20) and (21). As originally observed in Morgan (1989), the morphological Case of a fragment NP is the same as the one found in the corresponding NP in a fully sentential answer. In (20), only nominative Case may be attached to the fragment NP. Similarly, the postverbal subject in (21) must also bear nominative Case, which is licensed by the verb *sassta* in the host clause (but see (31)-(32) for a necessary modification of this generalization).

(20) *Case connectivity in fragments* (Morgan 1989, recited from B-S Park 2005:319)

A: Nwu-ka ku chayk-ul saas-ni?
 Who-Nom that book-Acc bought-Q
 ‘Who bought that book?’

B: **Youngswu-ka/ *Youngswu-lul** (sassta)
 Y.-Nom / Y.-Acc bought
 ‘Youngswu bought that book.’

(21) *Case connectivity in RDCs*

Chayk-ul saas-e **Youngswu-ka/*Youngswu-lul/*Youngswu-eykey**
 book-Acc bought-Dec Y.-Nom / Y.-Acc / Y.-Dat
 ‘Youngswu bought a book.’

variability, polarity (mis)match, island (in)sensitivity, Case drop, sub-extraction, and *wh*-licensing can be subsumed under elliptical coordination.

Next, consider the binding properties of fragments and postverbal arguments. As shown in (22), a fragment NP cannot be licensed when the corresponding non-elliptical sentence violates Principle C. In (22)B, for instance, *Cheli* as a fragment answer cannot refer to the same person as *ku ai* ‘that child’, just as in the case of the non-elliptical answer in (22)C. This indicates that Binding Principle C is effective in fragments. The same pattern is true of postverbal arguments, as shown by (23). When *Cheli-uy cip-ey* appears in the appendix, it cannot refer to the same person as the subject *ku ai* ‘that child’, just like fragments as seen in (22)B. This suggests that Binding Principle C is also active in RDCs.

(22) *Principle C effects and fragments* (an example modeled after Merchant 2004)

A: Ku ai-nun eti-ey memwul-ko iss-ni?
 that child-Top where-at stay-Prog be-Q
 ‘Where is the child staying?’

B: **Cheli-uy cip-ey**
 C-Gen house-at
 ‘at Cheli’s house’ (child ≠ Cheli)

C: Ku ai-nun Cheli-uy cip-ey memul-ko iss-e.
 that child-Top C-Gen house-at stay-Prog be-Q
 ‘That child is staying at Cheli’s house.’ (child ≠ Cheli)

(23) *Principle C effects and RDC*

Ku ai-nun memwul-ko iss-e **Cheli-uy cip-ey**
 that child-Top stay-Prog be-Q C-Gen house-at
 ‘That child is staying at Cheli’s house.’ (child ≠ Cheli)

One may find a further symmetry between fragments and RDCs in licensing anaphors. As shown in (24), the anaphor *selo* ‘each other’ can be licensed in fragments if the licenser exists in the full non-elliptical sentence. Similarly, an anaphor may appear in postverbal position, referring back to the subject in the host clause. The examples in (24) and (25) seem to provide further credence to the claim that fragments and postverbal elements share certain core syntactic properties related to anaphor binding.

(24) *Anaphor binding and fragment*

- A: [Mary-wa Sue]-ka nwukwu-lul pinanhayss-ni?
 M.-Top S. -Nom who-Acc blamed-Q
 ‘Who did Mary and Sue blame?’
- B: **Selo-uy** **pwumo-lul**
 each.other-Gen parents-Acc
 ‘each other’s parents.’ (B-S Park 2005:319)

(25) *Anaphor binding and RDC*

- [Mary-wa Sue]-ka pinanhayss-e **selo-uy** **pwumo-lul**
 M.-Top S.-Nom blamed-Dec each.other-Gen parents-Acc
 ‘Mary and Sue blamed each other’s parents.’

Fragments and postverbal arguments seem to share scopal properties as well. As observed in Chung (2009, fn.11) and Ahn (2012: 88), a quantifier in a fragment answer must take scope over the negation in a non-elliptical answer, as shown in (26). As already seen in (10)b, a postverbal quantifier also takes wide scope over negation. Thus, the parallelism between (10)b and (26) suggests that the syntax of fragments and postverbal arguments is very similar to each other, at least at the LF level. Unlike the L-scrambling approach in section 3, the fragment-based approach may attribute the difference between scrambling and RDCs to the peculiar syntax of fragments.

- (26) A: Mary-ka motwu ta an manna-ss-ni?
 M.-Nom all not meet-Past-Q
 (lit.) ‘Didn’t Mary meet all/any of them?’ (all>>Neg, Neg>>all)
- B: Ung. **motwu ta**
 Yes. all (of them).
 (lit.) ‘Yes, Mary did not meet all of them.’ (all>>Neg, *Neg>>all)
 (=‘No, Mary didn’t meet any of them.’)

It has also been observed that fragments are exempt from so-called LBC effects, similar to postverbal elements (see B-S Park 2005, Park and Kim 2009, Chung 2012, M-K Park 2012, among others). As illus-

trated in (27), the adnominal phrase *Yuni-uy* can be licensed even though its host *phal-ul* is elided in the fragment. Again, this seems very similar to what we have seen with postverbal adnominal phrases in (12) and (14). In both constructions, adnominal phrases may stand alone without their hosts. This suggests that the LBC can somehow be obviated in both constructions.

(27) *Fragments immune to LBC* (examples from Chung 2012)

- A: Cheli-ka nwukwu-uy phal-ul cap-ass-ni?
 C.-Nom who-Gen arm-Acc hold-Past-Q
 ‘Whose arm did Cheli hold?’
- B: **Yuni-uy**
 Y.-Gen
 ‘Yuni’s.’

Complementizer drop in Korean can also be taken as evidence for a similarity between fragments and postverbal arguments. B-S Park (2005) reports that the complementizer *-ko* in Korean cannot be dropped when the CP headed by *-ko* undergoes movement to sentence initial position, as shown in (28)b. This same type of effect can be observed with fragments in (29). As in (29)B, when *-ko* is dropped, it is quite degraded to use a clausal element as a fragment (the judgment is variable among speakers, however). Likewise, the postverbal complement in (30) is degraded if *-ko* is deleted (again with judgment variations). I agree with Park’s judgments on (28) and (29), and it is notable that the RDC in (30) is as degraded as (28)b and (29)B (see Merchant 2004 for the same observation on English fragments; see also Ahn 2012 for further discussion).⁹⁾

9) Ahn (2012: 74) suggests that the unacceptability of *ko*-drop in Korean may be explained by (gradable) processing difficulty instead of (categorical) ungrammaticality. Merchant (2004) and B-S Park (2005), however, argue that complementizer drop in fragments is disallowed by the grammar because a TP lacking C cannot be fronted prior to ellipsis. For now, I leave it open whether the unacceptability of *ko*-drop comes from processing or the grammar.

- (28) a. John-i Bill-eykey [Mary-ka ku pati-ey olke-la-(ko)] malhaysse
 J.-Nom B.-Dat M.-Nom that party-to come-Cop-C said.
 ‘John told Bill that Mary would come to the party.’
 b. [?][Mary-ka ku pati-ey olke-la] John-i Bill-eykey malhaysse
 M.-Nom that party-to come-Cop J.-Nom B.-Dat said
 ‘John told Bill that Mary would come to the party.’
- (29) A: John-i Bill-eykey mwu-la-(ko) malhayss-ni?
 J.-Nom B.-Dat what-Cop-C said-Q
 ‘What did John tell Bill?’
 B: [?][Mary-ka ku pati-ey olke-la]
 M.-Nom that party-to come-Cop
 ‘(that) Mary would come to that party.’ (B-S Park 2005:320)
- (30) [?] John-i Bill-eykey malhaysse [Mary-ka ku pati-ey olke-la]
 J.-Nom B.-Dat said M.-Nom that party-to come-Cop
 ‘John told Bill that Mary would come to the party.’

5.2. Unlike Fragments

As seen in the preceding section, there are some considerable similarities between fragments and RDCs. Further investigation, however, suggests that they in fact belong to different types of constructions, and the two constructions cannot be treated in the same way in Korean.

First, let us examine Case connectivity again. In (20) and (21), we have seen that both fragments and postverbal arguments bear the same morphological Case as the one licensed in corresponding non-elliptical sentences. Consider, however, examples like (31) and (32). As shown in (31), a certain amount of variability in Case morphology can be tolerated in fragment answers (see Ahn 2012 for discussion). Specifically, even if the full non-elliptical sentence contains a nominative-marked argument, the fragment NP may bear different Case morphology (e.g. *-lul*, *-ey*) as long as it can be licensed by the elided verb. By contrast, postverbal arguments in RDCs exhibit strict Case identity. As in (32), if the host clause contains a nominative-marked argument, the post-

verbal argument must also bear nominative Case. Other Case marking is banned in (32), unlike fragments in (31). This suggests that the Case connectivity effect between the host clause and the appendix in RDCs is much stronger than that of fragments.¹⁰⁾

(31) *Case variability in fragments* (examples from Ahn 2012: 64)

- A: Ne-nun **eti-ka** ka-ko sip-ni?
 you-Top where-Nom go-and want-Q
 ‘Where do you want to go?’
- B: **Hakkyo-ka/ Hakkyo-lul / Hakkyo-ey**
 school-Nom school-Acc school-to
 ‘to school’

(32) *Rigid Case Identity in RDCs*

- Na-nun **hakkyo-ka** ka-ko sip-e **hakkyo-ka / *hakkyo-lul / *hakkyo-ey**
 I-Top school-to go-and want-Dec school-Nom/ school-Acc / school-to
 ‘I want to go to school.’

Fragments and RDCs show radically distinct behavior with respect to NPI licensing. NPIs in Korean cannot be used as a fragment answer to a negative question (see Chung 2009, Ahn 2012, M-K Park 2013, S-Y Park 2013, R Kim 2013, among others, for discussion on NPI fragments in Korean). As illustrated with (33)B, if the question contains a negation, NPIs cannot be used as a fragment answer. By contrast, a proper name such as *Cheli-ka* in (33)C can be used as an answer to the negative question. In sharp contrast to this, NPIs may oc-

10) A reviewer note that when the host clause contains a gap, the appendix may allow three types of Cases listed in (32), as shown in (i):

(i) Na-nun ka-ko sip-e hakkyo-ka / hakkyo-lul / hakkyo-ey
 I-Top go-and want-Dec school-Nom/ school-Acc / school-to
 ‘I want to go to school.’

I agree with the reviewer’s judgment on (i). It seems that when the gap is not overtly realized in the host, Case variability is allowed even in RDCs. This is expected, however, in that there is no Case identity to be required at the level of morphology for sentences like (i). The point that I want to emphasize is that the fragment in (31) allows Case variability even though the preceding clause contains an overt antecedent (e.g. *eti-ka*), in contrast to (32).

cupy postverbal position in the RDC, following a negative clause. This is illustrated with (34)a and (34)b. Various types of NPIs such as *amwukesto* ‘anything’, *sayngsen-ppakkey* ‘fish-only’, and *enukesto* ‘anything’ can appear in the appendix in (34). If fragments and postverbal arguments were to be licensed by the same mechanism, the contrast between (33) and (34) would be a mystery.

(33) *NPI licensing and fragments*

- A: Nwu-ka o-ci-ahn-ss-ni?
 Who-Nom come-CI-Neg-Past-Q
 ‘Who came?’
- B: ***Amwuto**/* **Cheli-ppakey**/***Nwukwuto**
 anyone C.-only anyone
 ‘Nobody/only Cheli/nobody.’
- C: **Cheli-ka**
 C.-Nom
 ‘Cheli (didn’t come).’

(34) *NPI licensing and RDCs*

- a. Cheli-ka mek-ci-ahn-ass-e **amwukesto/ sayngsen-ppakey/ enukesto**
 C.-Top eat-CI-Neg-Past-Dec anything fish-only anything
 ‘Cheli did not eat anything/Cheli ate only fish.’
- b. Cheli-ka mek-ci-ahn-ass-ni? **amwukesto/ sayngsen-ppakey/ enukesto**
 C.-Top eat-CI-Neg-Past-Q anything fish-only anything
 ‘Didn’t Cheli eat anything?’/‘Did Cheli eat only fish?’

Chung (2009) also notes that NPI fragments can be licensed without overt negation (an observation also due to Watanabe 2004). As shown in (35), an NPI can be used as a fragment answer to a positive question (with some judgment differences). By contrast, it is clear that the same NPI cannot be used at all in postverbal position when preceded by a positive host clause, as shown in (36). The contrast between (35) and (36), again, suggests that the licensing mechanisms for NPIs in fragments and in RDCs cannot be the same. NPIs can be used in fragments (more or less) when the preceding question is positive, but not negative. On the other hand, NPIs in postverbal position may be li-

censed only when the host clause is negative, but not positive. The two constructions show the opposite polarity condition for NPI licensing (cf. Chung 2009 for the elliptical coordination approach).¹¹⁾

- (35) A: Cheli-ka nwukwu-lul manness-ni? B: **Amwuto**.
 C.-Nom who-Acc met-Q anyone
 'Who did Cheli meet?' 'Anyone.'

- (36) *Cheli-ka manness-e **amwuto**.
 C.-Nom met-Dec anyone
 'Cheli met anyone.'

Furthermore, fragments and RDCs show the opposite behavior with respect to certain types of islands as well. B-S Park (2005), in particular, reports that Korean fragments are *not* sensitive to islands. This is illustrated with (37). In (37)B, *emma-ka* can be used as a fragment answer even though the non-elliptical answer does not allow such extraction in the syntax, as in (37)C. Contrary to this, postverbal arguments are sensitive to islands in general (except for the LBC), as shown in (38). If the syntax of (37)B is equivalent to that of (38), it is not clear where the difference between the two originates. Specifically,

11) Chung (2009) argues that elliptical coordinate structures copy the polarity of the preceding clause to the following clause, as in (i). Assuming that RDCs are the product of elliptical coordination like in (i), Chung (2009) argues that NPIs as in (36) cannot be licensed due to polarity mismatch. Examples like (ii), however, challenge such an approach. As in (ii), if we employ an NPI in place of *Yuni* in (i), the sentence becomes ungrammatical. If negative polarity is copied from the preceding clause to the elided clause in (ii), as argued for (i), we would expect that *amwuto* in (ii) would be licensed by the copied negation - contrary to fact. Given the fact that (ii) is ungrammatical, one cannot attribute the (un)grammaticality of (34) and (36) to elliptical coordination *per se*. I also note that a reviewer finds (33)B grammatical as much as (35), contrary to the judgments reported above, and I believe that quantitative research is needed to evaluate judgment variation on fragment NPIs.

(i) Cheli-ka an-ka-ess-ko Yuni-to-ya.
 C.-Nom Neg-go-Past-Conj Y.-also-Dec
 'Cheli didn't go and Yuni didn't, either.' *Cheli didn't go and Yuni did.'

(ii) * Cheli-ka an-ka-ess-ko (sasil) amwuto-ya.
 C.-Nom Neg-go-Past-Conj in fact anyone-Dec
 'Cheli didn't go and in fact nobody (did).'

if island effects can be obviated in fragments in (37)B, one might wonder why such repair effects are unavailable for the corresponding RDC in (38).

(37) *Island insensitivity of fragments*

A: Cheli-nun [nwu-ka sacwu-n] mukkeli-lul peli-ess-ni?
 C.-Top who-Nom bought-RC nextlace-Acc throw.away-Past-Q
 (lit.) 'Who is such that Cheli threw away the necklace that the person bought for him?'

B: **Emma(-ka)**
 mommy-Nom
 'Mommy.'

C: ***Emma(-ka)** Cheli-nun [_ sacwu-n] mukkeli-lul peli-ess-e.
 mommy-Nom C.-Top bought-RC necklace-Acc throw.away-Past-Dec
 'Cheli threw away the necklace that (his) mother bought for him.'

(38) *Island sensitivity of RDCs*

*Cheli-nun [_ sacwu-n] mukkeli-lul peli-ess-e **emma(-ka)**
 C.-Top bought-RC nextlace-Acc throw.away-Past-Q mommy(-Nom)
 'Cheli threw away the necklace that his mother bought for him.'

It is also notable that Case drop has different consequences with respect to fragments and RDCs. Case drop in fragments is optional and does not affect overall grammaticality (when it is a single fragment). For instance, in (39), genitive Case marking can be freely dropped in fragments without affecting grammaticality or interpretation. By contrast, Case drop is much more limited in RDCs. As in (40), the genitive marker must be overtly pronounced in RDCs, in contrast to (39).¹²⁾

12) It seems that Case drop in RDCs follows the general pattern of Case drop in mono-clausal structures in Korean: namely that, Case drop for the object is relatively free, but it is allowed for (surface) subjects or oblique arguments only in the limited context where the postverbal argument is interpreted as a topic (observation also due to Takita 2012, Kim and Hong 2013). Takita (2012) calls the construction with Caseless postverbal arguments in Japanese *Pseudo Right Dislocation* (PRD), and argues that PRD is derived from a bare-topic construction, which can be subsumed under Hanging Topic constructions in Romance languages. On this approach, a bare-topic is base-generated in the left periphery and the rest of the clause is elided after clausal fronting. Kim and Hong (2013), on the other

(39) *Optional Case drop in fragments - case of genitive*

A: Yenghi-ka nwukwu-uy emma-lul manness-tay?
 Y-Nom who-Gen mother-Acc met-Q_{hearsay}
 ‘Whose mother did Yenghi meet?’

B: **Cheli-uy. / Cheli**
 C.-Gen C.
 ‘Cheli’s.’

(40) *Obligatory Case marking in RDCs - case of genitive*

Yenghi-ka emma-lul manness-tay **Cheli-uy. / *Cheli.**
 Y-Nom mother-Acc met-Q_{hearsay} C.-Gen C.
 ‘Yenghi met Cheli’s mother.’

There is also a semantic-pragmatic difference in Case drop between fragments and RDCs. As extensively discussed in Ahn (2012), Case drop in fragments in Korean can be licensed by the pragmatics. For instance, in (41), *san* ‘mountain’ can be employed as a fragment answer even though the verb *hay* ‘do’ cannot take *san* as its object in non-elliptical answers (with episodic readings). By contrast, the same word *san* ‘mountain’ cannot be used in postverbal position in RDCs, as in (42). This suggests that Case drop in fragments can be pragmatically licensed and loosely interpreted in the context of discourse. On the other hand, Case drop in RDCs must be licensed syntactically by the verb in the host clause. The asymmetry between (41) and (42) indicates that the syntactic relationship between the host and the appendix in RDCs is much closer than what is expected for the relationship between a fragment and its non-elliptical pair.¹³⁾

hand, argue that PRD in Korean is base-generated in the right periphery as a hanging-topic without clausal fronting. To my knowledge, there is no in-depth study on PRD couched under the mono-clausal analyses reviewed in section 2, and it also remains to be seen whether PRD involves the same structure as regular RDC.

13) One reviewer finds that examples like (42) and (44) are more or less acceptable (with some adjustment) and suggests that the differences between fragments and RDCs may be traced to the differences in their non-elliptical preceding clauses. Another reviewer finds that they are unacceptable and suggested that pragmatic adjustment may occur in fragment, but not in RDCs. See pages 304-305 for general comments on this.

- (41) *Case drop and pragmatic interpretation in fragments* (modeled after Ahn 2012: 43)

A: Nayil mwe hay-yo?
tomorrow what do-Q
'What are you going to do tomorrow?'

B: **San**
'Mountain.'

- (42) *Case drop and pragmatic interpretation in RDC*

*Na-nun nayil hay **san**
I-Top tomorrow do mountain
(intended) 'I will go to the mountain tomorrow.'

A similar type of asymmetry can be found in the tense interpretation of fragments and RDCs. As observed in Ahn (2012), tense mismatch in fragments can be acceptable, as in (43). By contrast, tense mismatch in RDCs is strictly banned, as in (44).

- (43) A: Cheli-ka ecey Yuni-lul manna-ss-ni?
C.-Nom yesterday Y.-Acc meet-Past-Q
'Did Cheli meet Yuni yesterday?'\

B: Ani. **Nayil**
No tomorrow
'No, tomorrow.' (Ahn 2012: 106)

- (44) *Cheli-ka Yuni-lul manna-ss-e **nayil-(to)**
C.-Nom Y.-Acc meet-Past-Dec tomorrow-too
'Cheli met Yuni, and tomorrow, too, (he will meet Yuni).'

Fragments also differ from RDCs in licensing extraction out of complex NP structures. Recall that adnominal phrases cannot appear in the appendix when it is embedded under another NP which does not function as the head of the object, repeated here as (45). In contrast to this, a fragment can be licensed in the same context, as shown in (46)B. The contrast between (46)B and (45)b again suggests that the syntax of the two constructions cannot be equated.¹⁴⁾

(45) *Adnominals in the appendix associated with complex NPs*

- a. Na-nun [Yenghi-uy emma-uy cha-lul] pilli-ess-e.
 I-Top Y.-Gen mommy-Gen car-Acc borrow-Past-Dec
 'I borrowed Yenghi's mother's car.'
- b. *Na-nun [__ emma-uy cha-lul] pilli-ess-e **Yenghi-uy.**
 I-Top mommy-Gen car-Acc borrow-Past-Dec Y.-Gen
 'I borrowed Yenghi's mother's car.'

(46) *fragment answer out of complex NPs*

- A: Ne-nun [nwukwu-uy emma-uy cha-lul] pilli-ess-ni?
 You-Top who-Gen mommy-Gen car-Acc borrow-Past-Dec
 'Whose mother's car did you borrow?'
- B: **Yenghi-uy.**
 Y.-Gen
 'Yenghi's'

Finally, there is one very important contrast between fragments and RDCs in licensing *wh*-phrases. The question of how *wh*-phrases can be licensed in RDCs is one of the most discussed topics in the literature (see in particular Choe 1987, Chung 2009, 2012, J-S Lee 2009, C-H Lee 2013, Ahn and Cho 2014, among others). Interestingly, however, what has rarely been discussed is the fact that *wh*-fragments are quite freely licensed in Korean, in contrast to *wh*-phrases in postverbal position. See, for example, the contrast between (47) and (48). As shown in (47), *wh*-fragments are acceptable in Korean, but *wh*-appendices are not, as seen in (48).¹⁵⁾

14) The grammaticality of (46)B suggests that *emma-uy cha* 'mother's car' may undergo repair-by-ellipsis, in contrast to (45). Thus, one cannot explain away (45) by assuming that the elided nominal, *emma-uy cha* 'mother's car' do not form a constituent. A reviewer notes that when the head of the complex NP is also the head of appendix NP, RDC is possible, as in (i). Taken together, the data presented in this paper suggest that LBC violation is not random, but that it is allowed only when the head of the appendix NP is also the head of the object of the verb. The challenge would be how to derive this generalization under the current bi-clausal analysis.

(i) Na-nun sey myeng-uy chinkwu-lul manasse Cheli-uy
 I-Top 3 Cl-Gen friend-Acc met C-Gen
 'I met three friends of Cheli's.'

(47) *wh*-fragments

- A: Yuni-ka ku salam-ul mannass-ni?
 Y.-Nom that person-Acc met-Q
 ‘Did Yuni meet that person?’
 B: **Nwukwu(-lul)?**
 ‘who-Acc’

(48) *Yuni-ka mannass-ni? **nwukwu(-lul)?**

- Y.-Nom met-Q who-Acc
 ‘Who did Yuni meet?’

Some studies have argued that the continuation of a *wh*-question after a polar question such as (48) is independently banned (see Chung 2009, 2012, C-H Lee 2013, Yoon 2013, Ahn and Cho 2014 for recent discussion). Consider, however, the example in (49). It shows that such a continuation is in fact acceptable. (49) consists of a polar question which asks whether there is a student Yuni met and then further asks which student Yuni met specifically. The grammaticality of (49) at least suggests that the combination of a polar and *wh*-question does not create a fundamental problem in the semantics or discourse. If (49) is grammatical, one might reasonably wonder why (48) cannot be rendered acceptable under the reading like (49). Moreover, if fragments and RDCs are to be treated in the same way, we are led to wonder why the grammatical status of (48) is radically different from the status of the *wh*-fragment in (47)B.

15) I believe that phonological factors would not explain the data like (48). As shown in (i), adverbial *wh*-phrases such as *way* ‘why’ can appear in the appendix, in contrast to (48). Moreover, when *wh*-phrases are further embedded in a clause, *wh*-phrase may follow a matrix question particle, as in (ii). If *wh*-phrases are banned across-the-board in postverbal position due to phonological reasons, one would not expect grammaticality of (i)-(ii) (see also Chung 2009 for possibility of multiple *wh*-phrases in RDCs).

- (i) Cheli-ka Yenghi-lul ttayli-ess-ni? **way?**
 C.-Nom Y.-Acc hit-Past-Dec why
 ‘Did Cheli hit Yenghi and why (is it so)?’
 (ii) Ne-nun a-ni? **nwu-ka Yenghi-lul ttayli-ess-nunci**
 You-Top know-Q who-Nom Y.-Acc hit-Past-Q
 ‘Do you know who hit Yenghi?’

- (49) Yuni-ka haksayng-ul manness-ni? nwukwu(-lul)?
 Y.-Nom student-Acc met-Q who-Acc
 ‘Did Yuni meet a student? and who (is he/she)?’

In this section, I showed an array of discrepancies between fragments and RDCs in their syntax and semantics, which have not received much attention in the literature so far. The proponents of fragment analyses may argue that the set of differences addressed here may be attributed to the role of pragmatics. It is evident that fragment answer is a part of dialogue, whereas RDCs is a part of monologue. One could reasonably assume that fragment answers are more amenable to pragmatic adjustment in the course of discourse interpretation, whereas RDCs may not be as flexible as fragment answers. In fact, the evidence collected here confirms such a conjecture in that connectivity effects in RDCs are much more rigid than the ones between a fragment and its non-elliptical pair. The purpose of this paper is not to deny the role of pragmatic factors in the interpretation of fragment answers or RDCs. Rather, the point is that the existence of pragmatic differences by itself does not prove or explain syntactic differences between fragments and RDCs in any explanatory way. It is not obvious *how* such pragmatic differences could affect “syntactic” properties such as Case variability, polarity (mis)match, island (in)sensitivity, Case drop, sub-extraction, and *wh*-licensing. This seems to be a non-trivial task that the fragment approach should undertake in future research, which involves a theory of syntax-pragmatics mapping.

6. Summary

In this paper, I examined three representative bi-clausal analyses for RDCs in Korean, and argued that there are some non-trivial problems that each analysis faces. In particular, the paper shows that a post-verbal element exhibits different syntactic characteristics from a (leftward-)scrambled element. It was also shown that current *pro*-based analyses may over-generate ungrammatical RDCs, since semantic licensing by a

null predicate is not properly constrained by the syntax. Finally, while the fragment-based approach may have a merit in capturing certain symmetries between fragments and RDCs - as argued in recent studies - this paper shows that the syntax of fragments cannot be equated to that of postverbal elements. Specifically, the two constructions show rather surprising discrepancies in many respects, including Case identity, NPI licensing, variability in island effects, Case drop, tense mismatch, sub-extraction, and *wh*-licensing.

The data discussed here suggest that the connectivity effects between the host and the appendix are much more rigid than between a fragment and its non-elliptical pair. If the validity of fragment approaches can be enhanced due to the similarities between fragments and RDCs, the lack of similarities between the two may weaken the validity of the approach as well. The rationale of bi-clausal analyses would be further strengthened if the challenges addressed here can be overcome in a systematic way. It would also be meaningful to examine whether the data presented in this paper can be accommodated successfully under a version of a mono-clausal analysis - novel or modified. I hope that this paper has contributed to a deeper understanding of RDCs in Korean by bringing up these new questions, and that the challenges addressed in this paper will be taken up in future research.

References

- Abe, Jun. (2004). On directionality of Movement: A Case of Japanese Right Dislocation. In *Proceedings of the 58th Conference: The Tohoku English Literary Society*, 45-61.
- Ahn, Hee-Don. (2012). *Cokakmwun Yenkwu*. [*Studies on Fragments*]. Hankuk Mwonhwasa.
- Ahn, Hee-Don, and Sungeun Cho. (2014). Right dislocation in Korean. Talk presented at Seoul National University, April 28, 2014.
- Atakan, İnce. (2012). fragment answers and islands. *Syntax* 15: 181-214.
- Bhatt, Rajesh, and Veneeta Dayal. (2007). Rightward scrambling as right-

- ward remnant movement. *Linguistic Inquiry* 38.2: 287-301.
- Choe, Hyon Sook. (1987). Successive-Cyclic Rightward Movement in Korean. In Kuno et al., *Harvard Studies in Korean Linguistics II*, 40-56.
- Chung, Daeho. (2009). An elliptical coordination analysis of the right dislocated construction in Korean. *The Linguistic Association of Korea Journal* 17.4: 1-23.
- Chung, Daeho. (2010). Replies to Lee (2009): in defense of a double clause approach to the right dislocated construction in Korean. *Studies in Modern Grammar* 61: 167-196.
- Chung, Daeho. (2012). Pre- vs. post-verbal asymmetries and the syntax of Korean right dislocated construction. *Studies in Generative Grammar* 22.4: 703-721.
- Grebenyova, Lydia. (2005). Sluicing and left-branch extraction out of islands. In John Alderete et al. (eds.) *Proceedings of the 24th West Coast Conference on Formal Linguistics*, Somerville, MA: Cascadilla Proceedings Project, 164-172.
- Kayne, Richard S. (1994). *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.
- Kim, Sun-Woong, and Yong-Tcheol Hong. (2013). Hanging topic, pseudo right dislocation, and (pseudo) fragment answers. Talk presented at Occasional Workshop on Ellipsis, Dongguk University, Dec 7, 2013.
- Kim, Sun-Woong, and Myng-Kwan Park. (2010). Parallel linearization: A thought on afterthought. *The Journal of Studies in Linguistics* 26.3: 459-480.
- Kim, Rhanhyeyun. (2013). On the negativity of negative fragment answers and ellipsis resolution. *Studies in Generative Grammar* 23: 171-197.
- Ko, Heejeong. (2007). Asymmetries in scrambling and cyclic linearization. *Linguistic Inquiry* 38.1: 49-83.
- Ko, Heejeong. in press. *Edges in Syntax: Scrambling and Cyclic Linearization*. Oxford: Oxford University Press.
- Ko, Heejeong, and Jaeyoung Choi. (2009). Rightward movement and output economy. *Proceedings of the 11th Seoul International Conference*

on *Generative Grammar: 2009 Visions of the Minimalist Program*, 247-255.

- Kuno, Susumu. (1978). *Danwa-no Bunpo* [Grammar of discourse], Tokyo: Taishukan Shoten.
- Kural, Murat. (1997). Postverbal Constituents in Turkish and the Linear Correspondence Axiom. *Linguistic Inquiry* 28.3.
- Lee, Chung-Hoon. (2009). The structure of Korean afterthought constructions [written in Korean]. *Emwunyenkwu* 142: 31-54.
- Lee, Chung-Hoon. (2013). Why are WH-afterthoughts impossible? [written in Korean]. *Studies in Modern Grammar* 72: 105-119.
- Lee, Jeong-Shik. (2007). Deriving SOV from SVO in Korean. *The Linguistic Association of Korea Journal* 15: 1-20.
- Lee, Jeong-Shik. (2009). A verb-initial single clause analysis of right-dislocated constructions in Korean. *Studies in Modern Grammar* 57: 1270-157.
- Lee, Woosung. (2009). *The role of case-marked noun phrase in clause structure building*. Doctoral dissertation, University of Illinois at Urbana Champaign.
- Lee, Woosung. (2010). The architecture of right dislocation constructions. *Studies in Generative Grammar* 20: 521-543.
- Mahajan, Anoop Kumar. (1988). Scrambling, weak crossover and binding. Ms. MIT [recited from Mahajan 1997].
- Mahajan, Anoop Kumar. (1997). Rightward scrambling. In Dorothee Beerman et al. (eds), *Rightward movement*. Amsterdam: John Benjamins, 185-213.
- Manetta, Emily. (2012). Reconsidering rightward scrambling: postverbal constituents in Hindi-Urdu. *Linguistic Inquiry* 43.1: 43-74.
- Merchant, Jason. (2001). *The Syntax of Silence: Islands and The Theory of Ellipsis*. Oxford: Oxford University Press.
- Merchant, Jason. (2004). Fragments and ellipsis. *Linguistics and Philosophy* 27: 661-738.
- Morgan, Jerry. (1989). Sentence fragments and the notion 'sentence'. In Braj Jashru et al. (eds.), *Issues in Linguistics*. Urbana: University of Illinois Press, 719-751.

- Park, Myung-Kwan, and Sun-Woong Kim. (2009). The syntax of after-thoughts in Korean: Move and delete. *The Linguistic Association of Korea Journal* 17: 25-53.
- Park, Bum-Sik. (2005). Island-insensitive fragment answers in Korean. In John Alderete et al. (eds.), *Proceedings of the 24th West Coast Conference on Formal Linguistics*, Somerville, MA: Cascadilla Proceedings Project, 317-325.
- Park, Myung-Kwan. (2012). Left branch extraction in fragment and truncated cleft construction in Korean. *Studies in Generative Grammar* 22.1: 219-233.
- Park, Myung-Kwan. (2013). On *amwuto* 'anyone' and its kin in Korean: their status and licensing as a fragment answer. *Studies in Generative Grammar* 23: 171-197.
- Park, So-Young. (2013). Polarity mismatches in Korean fragments. *Studies in Generative Grammar* 23.4: 867-881.
- Ross, John. R. (1969). 'Guess who?'. In R. Binnick et al. (eds.), *Papers from the 5th regional meeting of the Chicago Linguistic Society*. Chicago: Chicago linguistic society, 252-286.
- Sells, Peter. (1999). Japanese postposing involves no movement. A paper presented at the meeting of the Linguistic Association of Great Britain.
- Takano, Yuji. (2007). Making Rightward Scrambling Possible. Ms. Kinjo Gakuin University.
- Takita, Kensuke. (2009). Argument ellipsis in Japanese right dislocation. a paper presented at *Japanese/Korean linguistics* 18.
- Takita, Kensuke. (2012). Pseudo-right dislocation and the bare-topic construction in Japanese. *Nanzan Linguistics* 8: 147-171.
- Tanaka, Hidekazu. (2001). Right-Dislocation as Scrambling. *Journal of Linguistics* 37: 551-579.
- Watanabe, Akira. (2004). The genesis of negative concord: syntax and morphology of negative doubling. *Linguistic Inquiry* 35: 559-612.
- Whitman, John. (2000). Right Dislocation in English and Japanese, In Takami et al. (eds.), *Syntactic and Functional Exploration: In Honor of Susumu Kuno*, 445-470. Tokyo: Kuroshio Publishers.

Yim, Changguk. (2013). Bi-clausal evidence for right dislocation in Korean. *Studies in Generative Grammar* 23.1: 25-39.

Yoon, James Hye-Suk. (2013). Implications of constraints on null constituents for analyses of the right dislocation construction. A paper presented at the Department of English Colloquium, Dongguk University.

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