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On Extractability Out of a Null Clausal Complement in Korean

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ABSTRACT

The Journal of Studies in Language 39.4, 447-463. Extractability out of a null clausal complement has recently been investigated intensively to assess whether a null argument, NP/DP or clause, has internal syntactic structure in such languages as Korean and Japanese. As a starting point, I critically review Takahashi's (2020; 2023) and Park's (2023) recent study of this issue in cleft constructions. In addition to them, I also discuss the two more constructions involving right dislocation and relativization, showing that apparent extraction out of a null clausal complement in all of the constructions involve alleged chain heads at the (not left but) right periphery of the clauses that they are interpretively associated with. I move on to show using several diagnostics that the constructions at issue do not involve leftward movement, arguing against Takahashi's (2020; 2023) and Park's (2023) advocation of the extraction out of a null clausal complement inside these constructions. All in all, the extraction out of a null clausal complement is not allowed in Korean and Japanese. (Dongguk University)

Keywords: null clausal complement, extractability, cleft, right dislocation, ellipsis





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본인이 투고한 논문은 다른 학술지에 게재된 적이 없으며 타인의 논문을 표절하지 않았음을 서약합니다. 추후 중복게재 혹은 표절된 것으로 밝혀질 시에는 논문게재 취소와 일정 기간 논문 제출의 제한 조치를 받게 됨을 인지하고 있습니다.

1. Introduction

Syntactic movement out of ellipsis has been acknowledged as a never-failing diagnostic to test whether a phonologically null silent constituent that movement occurs out of has syntactic internal structure (Lasnik, 2001). The logic here is straightforward. Syntactic movement cannot apply to an empty pronominal (*pro*) because the lexical integrity hypothesis (Di Sciullo and Williams, 1987)) precludes any syntactic transformations including syntactic movement from applying to any subparts of *pro* as a word. Thus, syntactic movement out of ellipsis (henceforth, movement out of ellipsis) can be used to identify the syntactic identity of a certain silent constituent in syntax; that is, whether it has internal syntactic structure or not

The issue to be investigated in this paper using the diagnostic of movement out of ellipsis is the phonologically null form of clausal complement as in (1B) in the dialogue between A and B (See Hankamer and Sag (1976) for the discussion of the English null clausal complement anaphora.):

```
(1) A: Cheli-ka [mwul-i phaiphu-lo pwuthe hullenao-nun kes-ul] poassta
Cheli-NOM water-NOM pipe-from flow-MOD KES-ACC saw
'Cheli saw water flowing out of the pipe.'
B: Yengi-to [e] poassta.
Yengi-also saw
'(lit.) Yengi also saw [e].'
```

The clausal complement in (1B) can be phonologically null or silent (as indicated by the null category [e]), but it is interpreted in the same way as that in (1A). As in the literature on nominal null arguments in Korean, the identity of null clausal arguments as in (1B) has been controversial. They are either generated as an empty pronominal having no internal syntactic structure (Ahn and Cho, 2009), or derived via the elision of a complement clause structure (either via what Takahashi (2008) dubs Argument Ellipsis or V-stranding VP ellipsis adopted in Park (2009)).

Given this background, this paper uses movement out of ellipsis as a reliable diagnostic to elucidate the currently-debated issue of whether the null category in (1B) has internal syntactic structure or not. The paper is organized as follows. Section 2 reviews the earlier studies of the extractability out of a null clausal complement in Korean. Section 3 reviews Takahashi's (2020; 2023) and Park's (2023) recent study of the issue in focus, tacking with the phenomena both in Japanese and Korean. Section 4 adds to the phenomena in cleft constructions the two more constructions: right dislocation and relativization. Section 5 employs several diagnostics to probe whether there is a leftward movement of an empty operator in the clauses involving cleft formation, right dislocation, and relativization, and concludes that there is no such a movement in the clauses under investigation. Section 6 returns to Park's (2009) earlier analysis and refutes it, casting doubt on the extraction out of a null clausal complement in Korean. Section 7 wraps up with a conclusion.

2. Movement out of a Null Clausal Complement

Chung (2009) investigates the elidability of a complement clause selected by 'mit-' [believe], with the following paradigm:

```
(2) A: Na-nun [Yengi-ka Toli-lul salangha-n-ta-ko] mit-nun-ta.

I-Top Y.-NOM T.-ACC love-PRS-DCL-COMP believe-PRS-DCL

'I believe Yengi loves Toli.'

B: Na-to [Yengi-ka Toli-lul salangha-n-ta-ko] mit-nun-ta.

I-too Y.-NOM T.-ACC love-PRS.DCL-COMP believe-PRS-DCL

'I also believe Yengi loves Toli.'

B': *Haci-man, na-nun [Pyengi-ka Soli-lul salangha-n-ta-ko] mit-nun-ta.

but I-TOP P.-NOM S.-ACC love-PRS-DCL-COMP believe-PRS-DCL

'But I believe Pyengi loves Soli.'
```

```
B": *Haci-man, na-nun [Pyenghi-ka Soli-lul salangha-n-ta-ko]
                                                               mit-nun-ta.
              I-TOP P.-NOM S.-ACC love-PRS-DCL-COMP believe-PRS-DCL
    but
    'But I believe Pyenghi loves Soli.'
```

He notes that the complement clause can be deleted as in (2B), but he argues that the embedded subject or/and embedded object-surviving ellipsis is ruled out in (2B') and (2B") since it targets a non-constituent part of the complement clause.

However, as Ahn and Cho (2009) (also Saito (2007) for Japanese) note, after (2A) repeated below the continuation in (3) that apparently meets the constituent-hood requirement for ellipsis is also substantially degraded:

- (2) A: Na-nun [Yengi-ka Toli-lul salangha-nta-ko] mit-nun-ta. Y.-NOM T.-ACC love-PERS.DCL-COMP believe-PRS-DCL 'I believe Yengi loves Toli.'
- (3) *Haciman, Soli-lul₁ na-nun [Yengi-ka t₁ salangha-n-ta-ko]/pro S.-ACC I-Top Y.-NOM love-PRS-DCL-COMP believe-PRS-DCL 'I believe Yenghi loves Soli.'

Based on the unacceptability of (3), Ahn and Cho (2009) argue that the null clausal complement does not have internal syntactic structure as represented in (2), but it is an empty pronominal (pro) that does not have internal syntactic structure; as such, it does not allow extraction of the embedded object out of it, accounting for the ungrammaticality of (3). Park (2009), however, notes the parallelism between the null clausal argument construction in Korean as in (3) and the clausal complement-including VP ellipsis/Pseudogapping construction as in (4)-(5) (cf. Fox and Lasnik, 2003):

- (4) *They said they heard about a Balkan language, but I don't know [which Balkan language]_i they did [vP ti [vP say they heard about t_i]].
- (5) *Sandy was trying to work out how many students would be able to solve a certain problem, but she wouldn't tell us [which problem]_i she WASN'T [vP t_i [vP trying to work out how many students would be able to solve t_i]].

Park (ibid.) accounts for the ungrammaticality of (4) and (5) because the extraction out of the VP to be elided needs to be an instance of A-movement, but it cannot be, since it is long-distance.¹⁾ Adopting the V-stranding VP ellipsis analysis for (3), Park (ibid.) argues that the ungrammaticality of (3) is not due to the status of the complement clause as an empty pronominal disallowing extraction out of it. Rather, in the parallel fashion as (4) and (5), (3) violates the ellipsis parallelism since the moving element out of the complement clause cannot be analyzed as in A-position at the matrix [Spec,vP].

¹⁾ To meet the ellipsis parallelism between the antecedent and the ellipsis clauses in (4) and (5), the ellipsis clause involving the operator-variable chain formed by a wh-phrase in accordance with Chomsky's (1995) chain uniformity needs to have the variable at the matrix Spec of vP, implying that the extraction of a wh-object DP out of the VP undergoing ellipsis counts as an instance of A-movement.

Park (2009), however, notes that there is a difference between the null clausal argument construction in Korean and the complement clause-including VP ellipsis/Pseudogapping construction in English. When there is a wh-movement in the antecedent clause and parallelism is met with a wh-movement in the ellipsis clause, the requirement for long-distance A-movement out of a complement clause-including complex VP to be elided in the ellipsis clause is not enforced, accounting for the grammaticality of (6B) in English.²⁾

```
(6) A: I wonder who John thinks Mary saw yesterday.B: I also wonder who Bill does [e = think Mary saw yesterday].
```

Unlike in English, though there is a parallel movement (i.e., scrambling) in the antecedent clause, the alleged extraction out of the null clausal complement in (7B) yields an ungrammatical sentence in Korean:

```
(7) A: Yengi-lul na-nun [Cheli-ka t manna-n kes-ul] moll-ass-ta.

Yengi-ACC I-TOP Cheli-NOM saw KES-ACC not.know

'Yengi, I didn't know Cheli saw t.'

B: *Swuni-lul na-to [ e ] mollassta.

Swuni-ACC I-also not.know

'lit. Swuni, I didn't know [ e ].'
```

Therefore, since there is a discrepancy in extraction out of a null clausal complement between English and Korean as in (6B) vs. (7B), it is not clear whether Park's (2009) account for the ungrammaticality of Korean (3) on the analogy of English (4)-(5) is on the right track.

3. Takahashi's (2020, 2023) Extraction out of a Null Clausal Complement in Clefts

Takahashi (2008) proposes an Argument Ellipsis analysis for null arguments. To reinforce this proposal, Takahashi (2020) draws on the fact that in cleft constructions of Japanese, the null clausal complement selected by a perception verb allows for extraction out of it. The following example in (8) makes a point:

```
(8) a. [Harry-ga [Ginny-ga t<sub>PP</sub> detekuru no]-o mokugekisita no]-wa
Harry-NOM Ginny-NOM come.out that-ACC witnessed that-TOP
[<sub>PP</sub> kono biru kara] da.
this building from be
'It was from this building that Harry witnessed Ginny coming out.'
```

²⁾ If there is no parallel wh-movement in the antecedent clause and there are no parallel chain links corresponding to those in the ellipsis clause, the extraction of a wh-object DP out of the VP undergoing ellipsis cannot be an instance of long-distance movement, but needs to be an instance of A-movement.

b. [Ron-ga [e] mokugekisita no]-wa [PP ano biru kara] da. Ron-NOM witnessed that-TOP that building from be 'lit. It was from that building that Ron witnessed [e].'

In (8b), [e] represents the null argument substituting for the embedded complement clause within which the cleft pivot PP needs to be interpreted.

In (8), the complement clause selected by a perception verb is a nominal clause headed by '-no.' Takahashi (2008) also brings to the fore the cleft example where the complement clause selected by a perception verb is a non-nominal clause headed by '-to,' as in (9):

(9) a. [Ron-ga [Harry-ga t atta to] syoogensita no]-wa [PP Ginny-ni] da. Ron-NOM Harry-NOM met that testified that-TOP Ginny-DAT be 'It was with Ginny that Ron testified that Harry met t.'

b. [Hermione-ga e syoogensita no]-wa [PP Cho Chang-ni] da. Hermione-NOM testified that-TOP Cho Chang-DAT be 'lit. It was with Cho Chang that Hermione testified [e].'

As Park (2023) also notes, Korean clefts corresponding to Japanese clefts in (8) and (9) are as follows:

(10) A: Cheli-ka [koyangi-ka t nao-nun mokkyekha-n kes-ul] Cheli-NOM cat-NOM come.out-MOD KES-ACC witness-MOD kes-un [PP i kenmwul-lopwuthe]-i-ta. **KES-TOP** this building-from-COP-DCL 'It is from this building that Chul saw the cat come out.'

B: Yengi-ka [e] mokkyekha-n kes-un [PP ce kenmwul-lopwuthe]-i-ta. Yengi-NOM witness-MOD KES-TOP that building-from-COP-DCL 'lit. It is from that building that Yengi witnessed [e].'

(11) A: Yengi-ka (hoysa-nayeyse) t tayliphaysstako] cungenha-n [Cheli-ka Yengi-NOM Cheli-NOM company-in had a conflict testify-MOD

ke(s)-un [PP pwucang-kwa]-i-ta.

KES-TOP depart.head-with-COP-DCL

'It is with the department head that Yengi testified that Cheli had a conflict in the company.'

[e] cungenhan kes-un [PP kwacang-kwa]-i-ta. B: Swuni-ka testify-MOD KES-TOP section.chief-with-COP-DCL Swuni-NOM 'lit. It is with the section chief that Swuni testified [e].'

These sentences are also acceptable. The PP pivot in the (B)-example of (10) or (11) needs to be associated interpretively inside the null clausal complement.

Takahashi (2023) goes on to claim that the cleft pivot in Japanese clefts can not only apparently come from within the null clausal complement, but it can also be a Genitive-marked PP extracted from inside a DP/NP, as follows:

```
(12) A: [[ __ Kyakuin kyozyu]-ga
                                      Ken-o
                                               hometa no]-wa dono kuni
             visiting professor-NOM Ken-ACC praised that-TOP which country
        kara-no desu ka?
        from-GEN be O
        'lit. From which country was it that a visiting professor praised Ken?'
     B: Amerika da yo.
        America be SFP
        'America.'
     A': Zyaa, [([ __ kyakuin kyozyu]-ga)
                                           Hana-o
                                                      hometa no]-wa
                    visiting professor-NOM Hana-ACC praised that-TOP which
         kuni kara-no] desu ka?
         country from-GEN be Q
         'lit. Then, from which country was it that (a visiting professor []) praised Hana?'
```

In (12A'), the subject NP the inside of which the pivot is interpretively associated with can be optionally realized. If not, the subject NP is realized as a null argument, which Takahashi (2023) argues renders compelling evidence for extraction out of the DP/NP undergoing Argument Ellipsis.

In passing, the Korean counterparts of (12A) and (12A') in Japanese is not acceptable.

```
(13) A: [Cheli-lul
                    pangmwun kyoswu]-ka
                                                 chingchanha-n
         Cheli-ACC
                       visiting
                                 professor-NOM praise-MOD
         kes-un
                    [enu nala-lopwuthe(*-uy)]-i-ni?
         KES-TOP which country-from-GEN-COP-Q
         'lit. From which country is it that [a visiting professor t] praised Cheli?'
     B: Mikwuk(-ulopwuthe).
        America-from
        'It is from America.'
     A': Kulem [ Yengi-lul (__pangmwun kyoswu)-ka)
                                                          chingchanha-n
                                visiting
                                          professor-NOM praise-MOD
         then
                 Yengi-ACC
                           nala-lopwuthe(*-uy)]-i-ni?
         kes]-un
         KES-TOP which country-from-GEN-COP-Q
```

In Korean, the cleft pivot cannot be Genitive-marked. In this example, regardless of whether it is Genitive-marked or not, neither (13A) nor (13A') is acceptable. I will return below to why a (Genitive-marked) PP that serves as a cleft pivot cannot be extracted from a DP/NP.

In summary, Takahashi (2020, 2023), and Park (2023) show that the pivot in clefts can be interpretively associated with the position either inside the null clausal complement or the null DP/NP. Takahashi makes a stronger argument that these cases at hand render conclusive evidence showing that their structures being present in syntax, both embedded complement clauses and DP's/NP's undergo Argument Ellipsis, also allowing for extraction out of them.

4. Other Exempt Overt Head XPs at the Right Side

On top of clefts in (10) and (11), right dislocation (RD) behaves in the identical fashion.

```
(14) A: Cheli-ka
                  [koyangi-ka t nao-nun kes-ul]
                                                         mokkyekhayss-e,
        Cheli-NOM cat-NOM come.out-MOD KES-ACC witnessed
               kenmwul-lopwuthe].
           this building-from
        'Chul saw [the cat come out], from this building.'
     B: Yengi-ka [e] mokkyekhayss-e, [PP ce kenmwul-lopwuthe].
        Yengi-NOM witnessed
                                         that building-from
        'lit. Yengi witnessed [e], from that building.'
```

'lit. It is with the section chief that Swuni testified [e].'

(hoysa-nayeyse) t tayliphaysstako] cungenhayss-e, (15) A: Yengi-ka [Cheli-ka testified Yengi-NOM Cheli-NOM company-in had a conflict [PP pwucang-kwa]. depart.head-with 'It is with the department head that Yengi testified that Cheli had a conflict in the company.' B: Swuni-ka [e] cungenhayss-e, [PP kwacang-kwa].3) Swuni-NOM testified section chief-with

In the (B)-sentences of these examples, the RD-ed PP can be associated interpretively with the null clausal complement.

In addition, RD allows for an apparent extraction of a PP from a DP/NP as in (16A) or (17A), which is distinguished from (13A) as a Korean cleft construction. (See Ko (2015), Chung (2016), and An (2016) for the empirical claim on examples like (16A) and (17A)):

^{3) (15}B) is intended to mean that the RD-ed PP is not associated with the matrix verb 'cungenhayss-e', but with the inside of its null complement clause.

```
(16) A: [Cheli-lul
                          pangmwun kyoswu]-ka
                                                      chingchanhayss-e,
         Cheli-ACC
                         visiting
                                     professor-NOM praised
        cwungkwuk-ulopwuthe-uy.4)
        China-from-GEN
        'lit. A visiting professor [ ] praised Cheli, from China.'
     B: Yengi-to ([__pangmwun kyoswu]-ka)
                                                   chingchanhayss-e, ilpon-ulopwuthe-uy.
        Yengi-also
                        visiting
                                   professor-NOM praised
                                                                     Japan-from-GEN
        'lit. A visiting professor [] praised Yengi, from Japan.'
(17) A: Motun haksayngtul-ul [ phyenci]-ka
              students-ACC
        all
                                 letter-NOM
        nollakey hayss-e, pwukkyeng-ulopwuthe-uy.
                         Peking-from-GEN
        surprised
        'lit. A letter [] surprised all the students, from Peking.'
     B: Motun kyoswutul-to ([ phyenci]-ka) nollakey hayss-e, tokhyo-eyse-uy.
                                  letter-NOM surprised
                                                                 Tokyo-from-GEN
               professor-also
        'lit. A letter [ ] also surprised all the professor, from Tokyo '
```

The (A)-sentence of (16) or (17) sounds slightly degraded, but it is acceptable, in contrast to that of its cleft counterpart in (13A). In response to this sentence, the (B)-sentence of (16) or (17) is also acceptable.

In summary, besides the interpretive association of a cleft pivot within a null clausal complement in cleft formation as claimed by Takahashi (2020, 2023) and Park (2023), right dislocation and relativization also allow for such an association. It is worth noting that cleft formation, right dislocation, and relativization have it in common that they only apparently involve right movement; they in fact do not. In other words, they base-generate the chain head at the not left but right side of a preceding clause.

5. Whether Extraction Occurs in Cleft formation, Right Dislocation, and Relativization

Once again, I point out that the three constructions at issue apparently have an overt filler (such as a cleft pivot, a RD-ed element, a relative head NP) at the right side of the clause it associates with, as follows:

(18) a. cleft formation

[clause] cleft pivot

b. right dislocation

[clause] RD-ed element

c. relativization

[clause] relative head NP

⁴⁾ An anonymous reviewer of this journal claims that (16A) improves in grammaticality when the Genitive-marked RD-ed element is replaced by the adnominal phrase 'cwungkwuk-eyse on-n' [coming from China], but (16B) does not even with the corresponding adnominal phrase 'ilpon-eyse on-n' [coming from Japan]. The same is true of (17B), according to him/her.

I assume that there is no rightward movement. Then, what is at stake in (18a-c) is whether there is a leftward movement in the clause preceding an overt filler. Since there is no overt operator realized at the left periphery of this clause, it must be that if any, there is a left movement of an empty operator.

It has been controversial whether there is a leftward movement of an empty operator in the cleft or relative clause, though it is well acknowledged that there is no such kind of empty operator movement in the clause prior to a RD-ed element. The test based on the bound variable reading of the overt pronoun 'ku' [he] shows that neither cleft nor relative clause involves the leftward movement of an empty operator. As Kang (1988) notes, the bound variable reading of the overt pronoun 'ku' [he] is available when it or its trace is c-commanded by a quantificational element like 'motun haksayng' [all the students], as in (19) and (20):

```
(19) a. (?)[Motun haksayng-i] [ku-uy yenge sensayngnim-kkey]
          every student-NOM his
                                    English teacher-to
          chwuchense-lul
                                  pwuthakha-yssta.
          recommend.letter-ACC asked
       'Every student asked his English teacher for a letter of recommendation.'
     b. ?[Ku-uy yenge sensayngnim-kkey] [ motun haksayng-i t chwuchense-lul pwuthak-hayssta].
```

(20) a. *[Ku-uy haksayng-i] [motun yenge sensayngnim-kkey] his student-NOM every English teacher-to chwuchense-lul pwuthakha-yssta. recommend.letter-ACC asked 'His student asked every teacher for a letter of recommendation.' b. ?[motun yenge sensayngnim-kkey] [ku-uy haksayng-i t chwuchense-lul pwuthakhayssta].

When I apply this test to cleft formation and relativization, (21a-b) show that while relativization does not involve movement in the relative clause, cleft formation appears to do so in the cleft clause:

```
(21) a. ?[Motun haksayng-i] chwuchense-lul
                                                 pwuthakha-n
       every student-NOM recommend.letter-ACC asked
                [ku-uy yenge sensayngnimkkey]-i-ta.
       KES-TOP his English teacher-COP-DCL
       'What every student asked a letter of recommendation is to his English teacher.'
     b. *[motun haksayng-i] chwuchense-lul
                                                    pwuthakha-n [ku-uy yenge
         every student-NOM recommend.letter-ACC ask-MOD
                                                                 his English
         sensayngnim-un] chincelha-ta.
         teacher-TOP
                         kind-DCL
         'The teacher that every student asked a letter of recommendation to is kind.'
```

However, when the surface order relation between a quantificational element and a bound variable pronoun is reversed, both cleft formation and relativization are ruled out.

```
(22) a. *[Ku-uy haksayng-i] chwuchense-lul
                                                  pwuthakha-n
         his student-NOM
                           recommend.letter-ACC ask-MOD
         kes-un
                    [motun yenge sensayngnim-kkey]-i-ta.
         KES-TOP every English teacher-to-COP-DCL
         'It is to every English teacher that his student asked a letter of recommendation.'
     b. *[Ku-uy haksayng-i] chwuchense-lul
                                                  pwuthakha-n
         his student-NOM recommend.letter-ACC ask-MOD
                       sensayngnim-un] chincelha-ta.
        [motun yenge
         every English teacher-TOP
                                        kind-DCL
         'Every English teacher that his student asked a letter of recommendation is kind.'
```

This indicates that there is no movement involved in relativization, but there is movement involved in cleft formation. I propose more specifically that there is no movement involved in the cleft clause, but there is a cleft pivot derived via Move and Delete, as follows (see Sohn 2011 for the similar proposal).

Now the difference in grammaticality between (21a) and (22a) (in contrast to the parallelism in grammaticality between (19b) and (20b)) follows from the fact that 'ku-uy' in (21a) can be licensed in a point of derivation (i.e., during the derivation of a cleft pivot), but 'ku-uy' in (22a) cannot be because there is no movement involved in the cleft clause after all.⁵⁾

In addition to the test using the bound variable pronoun, I can also use Bhatt's (2002) test in (24):

- (24) The first book [that John said [that Tolstoy wrote]]
 - a. High Reading: the λx first [book, x] [John said that Tolstoy had written x]
 - = the first book about which John said that Tolstoy had written it⁶)
 - b. Low Reading: the λx [John said that [first [Tolstoy had written [book, x]]]]
 - = the x s.t. John said the first book Tolstoy had written was x^{7}

(Bhatt, 2002)

⁵⁾ To the extent that the analysis of the cleft clause in Korean as not involving movement as argued in the text is correct, I suggest that the so-called connectivity between the cleft clause and the cleft pivot needs to be captured not in terms of syntactic/LF reconstruction, but semantic reconstruction. See Cresti (1995), Rullmann (1995), and Lechner (1998) supporting the latter line of analysis for connectivity.

⁶⁾ This reading focuses on "the book about which John made a statement regarding Tolstoy's authorship."

⁷⁾ This reading focuses on "the book that John claimed to be the first one written by Tolstoy."

Bhatt (2002) argues that the ambiguity in (26) can only be derived under a Head-Raising analysis. Bhatt claims that if the Head-Raising analysis is unavailable, only the high reading will be possible.

I turn to apply Bhatt's (2002) test to Korean cleft formation and relativization. While the relative construction in (26) only allows for a high reading, the cleft construction in (25) allows for both a high reading and a low reading. (See also Kwon et al. (2006), Kwon (2008), and Lee (2012) for the analogous claim on the absense of the lower reading in Korean relatives.)

- (25) [Con-i [tholsuthoi-ka ssess-tako] malha-n kes]-un ches penccay chayk-i-ta. John-NOM Tolstoy-MOM wrote say-MOD KES-TOP the first book-COP-DCL 'It is the first book that John said Tolstoy wrote.'
- (26) [Con-i [tholsuthoi-ka ssess-tako] malha-n] ches penccay chayk-i (yeki issta). John-NOM Tolstoy-MOM wrote say-MOD the first book-NOM here be 'The first book that John said Tolstoy wrote is here.'

This contrast between cleft formation and relativization also follows since only the cleft pivot is derived from Move and Delete. As it can be reconstructed into the embedded clause (where the cleft pivot is derived from; see (23) once again) in the cleft construction, the book was said by John to be the first one that Tolstoy wrote the story in; thus, the low reading is available only to the cleft construction, but not to the relative construction.

I now come to the interim conclusion that the three constructions involving cleft formation and relativization as well as right dislocation that apparently involve rightward movement in fact do not involve leftward movement in the cleft clause, not in the relative clause, nor in the clause before a RD-ed element. Apparent interpretive association of a right-peripheral element inside a null clausal complement in one of these clauses is allowed, since this association does not involve any literal extraction of the element at hand from such a null clausal complement.⁸⁾

Leaving this section, I have one contrast between cleft formation and right dislocation I need to account for, as repeated below:

pangmwun kyoswu]-ka (13) A: [Cheli-lul chingchanha-n professor-NOM praise-MOD Cheli-ACC visiting [enu nala-lopwuthe(*-uy)]-i-ni? kes-un KES-TOP which country-from-GEN-COP-Q 'lit. From which country is it that [a visiting professor t] praised Cheli?'

⁸⁾ More exactly speaking, a cleft pivot and a RD-ed element are derived via Move from the immediately following clause that undergoes Fragmenting-like clausal ellipsis. By contrast, a relative head NP is base-generated in its surface position without involving Move and can be associated interpretively with the inside of a RC-internal null clausal complement; to the extent that this analysis is correct, it endorses the non-movement or semantic binding approach to Korean relativization as advocated by Kwon (2008) and Yoon (2011). A relative head NP's interpretive association with the inside of a RC-internal null clausal complement is possible, since as well-known, Korean (and Japanese) relativization is not subject to island constraints.

```
B: Mikwuk(-ulopwuthe).
        America-from
        'It is from America.'
     A': Kulem [ Yengi-lul ( pangmwun kyoswu)-ka)
                                                           chingchanha-n
         then
                  Yengi-ACC
                                 visiting
                                            professor-NOM praise-MOD
         kes]-un [enu
                          nala-lopwuthe(*-uy)]-i-ni?
         KES-TOP which country-from-GEN-COP-Q
         'lit. From which country is it that [a visiting professor t] praised Cheli?'
(16) A: ?Cheli-lul [ pangmwun kyoswu]-ka chingchanhayss-e,
         Cheli-ACC
                    visiting professor-NOM praised
         cwungkwuk-lopwuthe-uy.
         China-from-GEN
         'lit. A visiting professor [] praised Cheli, from China.'
     B: Yengi-to ([ pangmwun kyoswu]-ka)
                                                 chingchanhayss-e, ilpon-lopwuthe-uy.
                      visiting
                                 professor-NOM praised
                                                                   Japan-from-GEN
        Yengi-also
        'lit. A visiting professor [ ] praised Yengi, from Japan.'
```

Recall that in the right dislocation construction of (16A), the RD-ed Genitive-marked PP can be associated with the inside of the preceding NP. In the cleft construction of (13A), however, the Genitive-marked cleft pivot PP cannot be.

Though this contrast looks to be puzzling, it can be accounted for by Max-Elide (Park, 2016) or Extra-Deletion (An, 2016). The (Genitive-marked) PP in both (13A) and (16A) cannot be derived only by Move. If it was, both (13A) and (16A) would be ruled in, contrary to fact. I suggest that (13A) can only be derived by Move and Delete, while (16A) involves an additional operation of Max-Elide/Extra-Deletion as well as Move and Delete. (13A) and (16A) are derived by such operations in the following way.

- (13) A: [___pangmwun kyoswu]-ka Cheli-lul chingchanha-n kes-un [[enu nala-lopwuthe *((-uy) pangmwun kyoswu-ka)] [t cheli-lul chingchanha]]-i-ni?

In deriving either the cleft pivot or the RD-ed element, the constituent DP/NP containing the Genitive-marked PP undergoes leftward Move to the periphery of the clause, which in turn undergoes clausal Delete. Since only the RD-ed element but not the cleft pivot occurs in the right periphery of the whole sentence, it can be subject to Max-Elide or Extra-Deletion (the part of this ellipsis being indicated by a double strike-through), thereby being realized with the Genitive-marked form (as well as with the PP).

6. Leftward Movement

Dismissing it as invalid that the clause before a cleft pivot, a RD-ed element, and a relative head NP involves leftward movement of an empty operator, I now reconsider whether the null clausal complement in (3) as a response to (2A), repeated below, allows syntactic extraction out of it:

- (2) A: Na-nun [Yengi-ka Toli-lul salangha-n-ta-ko] mit-nun-ta. Y.-NOM T.-ACC love-PRS-DCL-COMP believe-PRS-DCL 'I believe Yengi loves Toli.'
- (3) *Haciman, Soli-lul₁ na-nun [Yengi-ka t₁ salangha-n-ta-ko]/pro S.-ACC I-Top Y.-NOM love-PRS-DCL-COMP mit-nun-ta. believe-PRS-DCL 'I believe Yenghi loves Soli.'

To diagnose whether the null clausal complement in (3) allows syntactic extraction out it, therefore warranting internal syntactic structure, I can use Chung's (2008; 2013) test. According to him, it is impossible for a null argument in Korean to substitute for a wh-indeterminate element as a counterpart of an English wh-phrase, as in (27A2). Note, however, that unlike the null argument substitution strategy it is possible to apply Fragmenting-like clausal ellipsis to elide a wh-indeterminate element together with its wh-agreeing Q-marker '-no' in Kyengsang Dialect of Korean as in (27A2'):

```
(27) Chung (2013: 475-6):
     A1: Mary-ka nwukwu-lul manna-ess-no?
         M.-NOM who-ACC meet-PST-QE<sub>wh</sub>
         'Who did Mary see?'
     B1: Mary-ka Tom-ul
                              manna-ess-ta.
         M.-NOM Tom-ACC meet-PST-DE
         'Mary saw Tom.'
     A2: Kulemyen, Sue-nun *[e]/*(nwukwu-lul) manna-ess-no?
                   S.-TOP
         then
                                  who-ACC
                                              meet-PST-OEwh
         'lit. Then (who) did Sue see?'
     A2': Kulemyen, Sue-nun (nwukwu-lul manna-ess-no)?
                    S.-TOP who-ACC
                                         meet-PST-QE<sub>wh</sub>
          'lit. Then (who) did Sue see?'
```

When the clausal ellipsis retains the syntactic structure, it will be predicted that the following sentence in (28B) involving a null but syntactically available clausal complement is (28B'). But this prediction is not borne out. (28B) is not acceptable.

```
(28) A: Ni-nun [Yengi-ka mwues-ul sa-nun kes-ul] poass-no?
you-TOP Yengi-NOM what-ACC buy-MOD KES-ACC saw-Q
'What did you see Yengi buy?'
B: *Cheli-to [ e ] poass-no?
Cheli-also saw-Q
'lit. What did Cheli also see [ e ]?'
B': Cheli-to [ Yengi-ka mwues-ul sa-nun kes-ul] poass-no?
Cheli-also Yengi-NOM what-ACC buy-MOD KES-ACC saw-Q
'lit. What did Cheli also see [ e ]?'
```

The ungrammaticality of (28B) indicates that neither the null clausal complement nor the wh-indeterminate in it is syntactically represented.

The following test using the availability of the antecedent for the overt pronoun 'ku' [it] makes the same point. (29B) has the null clausal complement, whereas (29B') has the 'kulehkey' [so] clausal anaphora (Hankamer and Sag, 1976):

```
(29) A: Yengi-nun [caki nothupwuk-i
                                         mangkacyess-tako] mitessta.
        Yengi-TOP self notebook-NOM was broken-COMP believed
        kulayse Yengi-nun
                                   kukes-ul swulicem-ey mathkiessta.
        so
                Yengi-TOP it-ACC it-ACC repair.shop-to left
        'Yengi believed [that his laptop was broken], so he took it to a repair shop.'
     B: *?Cheli-to [ e ] mitessta. Kulayse Cheli-nun kukes-ul
          Cheli-also believed so
                                         Cheli-TOP it-ACC
          swulicem-ey mathkiessta.
          repair.shop-to left
          'lit. Cheli also believed [e], so he took it to the repair shop.'
     B': Cheli-to kulehkey mitessta. Kulayse Cheli-nun kukes-ul
                            believed so
         Cheli-also so
                                             Cheli-TOP it-ACC
         swulicem-ey mathkiessta.
         repair.shop-to left
         'Cheli believed so too, so he took it to the repair shop.'
```

(29B') is acceptable, but (29B) is not. This also shows that unlike the 'kulehkey' [so] clausal anaphora in (29B'), the null clausal complement in (29B) cannot provide a syntactically-available antecedent for the overt pronoun 'kukes' in the second sentence.

In addition, the scope interaction of an embedded clause-internal numeral with the matrix-clause negation makes the same case in (30).

```
(30) A: Na-nun [ tases myengi
                                   ku il-ul
                                                  kongmohayss-tako] malhaci anhassta
                  five CLF-NOM that task-ACC conspired-COMP
        I-TOP
                                                                      say not.did
         'I didn't say that five people conspired to do it.'
     B: Na-to [e] malhaci anhassta.9)
        I-also
                           not.did
                   say
         'lit. I also didn't say [e].'
     B': Na-to kulehkey malhaci anhassta.
                                   not.did
         I-also so
                          say
         'lit. I also didn't say so.'
```

In (30B'), the numeral + classifier 'tases myeng' [five people] within the reconstructed structure of the 'kulehkey' [so] clausal anaphora can be in the scope of the matrix-clause negation. By contrast, the null argument corresponding to the embedded complement clause in (30B) is only construed as 'anything;' thus, the whole sentence in (30B) means "I didn't say anything, either".

In summary, in this section I have seen using three tests that the null clausal complement does not have internal syntactic structure. This means that the ungrammaticality of (3) is not due to a violation of Park's (2009) parallelism/identity in ellipsis, but due to the absence of internal syntactic structure for the null clausal complement. Since the null clausal complement is simply syntactically atomic as a null argument, it does not allow for extraction out it.

7. Conclusion

In conclusion, my investigation into the extractability out of null clausal complements in languages such as Korean and Japanese has provided valuable insights into the internal syntactic structure of null arguments, including NP/DP or clause categories. I have begun an inquiry by conducting a critical review of the seminal studies conducted by Takahashi (2020; 2023) and Park (2023), both of which centered on the examination of extractability in cleft constructions. Building upon their foundational work, I have expanded the proposed analysis to encompass two additional constructions: right dislocation and relativization. The findings in this paper have revealed that instances of apparent extraction from a null clausal complement consistently involve purported chain heads situated at the right periphery of the associated clauses, bolstering an understanding of the underlying syntactic mechanisms at play.

To further elucidate the findings, I have employed a range of diagnostics designed to probe the possibility of leftward movement within the clauses under investigation. These diagnostics, when applied rigorously, have allowed us to make persuasive arguments against the claims put forth by Takahashi (2020; 2023) and Park (2023) regarding the extraction of elements from within null clausal complements contained within the constructions at issue.

Ultimately, I have come to the conclusion: the extraction out of a null clausal complement is not admissible in Korean and Japanese. This result carries profound implications, emphasizing the need for a more meticulous reevaluation of the

⁹⁾ One of the anonymous reviewers claims that (30B) is construed in the same as (30B'), with the numeral + classifier 'tases myeng' [five people] in the scope of the matrix-clause negation. It needs to be investigated further whether this reading comes from the recovered internal structure of the null complement in (30B') or only via its semantic reconstruction.

identity and nature of null arguments in these languages. The intricacies of this syntactic phenomenon warrant continued investigation and exploration, as they open new avenues for advancing an understanding of these languages' syntax.

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