

## An RP Analysis of ECM in Korean and Mongolian (HO Short version)

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2020

### 1. Introduction

- This study explores the syntactic properties of the ECM subject across languages in terms of the RP (Relator Phrase) analysis of den Dikken (2006, 2017a, 2017b). A typical ECM in English is given in (1) and its counterpart in Korean is in (2).
- (1) a. John believes [<sub>CP</sub> that Mary is pretty].  
b. John believes [<sub>TP</sub> Mary to be pretty].
- (2) a. Chelswu-ka [<sub>CP</sub> Yenghi-ka yeppu-tako] saykakhanta.  
C-nom Y-nom pretty-C think  
b. Chelswu-ka [<sub>CP</sub> *Yenghi-lul* yeppu-tako] saykakhanta.  
C-nom Y-acc pretty-C think
- The concern of this study is about the ECM subject. Differently from English, the embedded subject of ECM in Korean has been discussed to have A' properties. The NP-acc, *Yenghi-lul* in (2b) acts as a non-argument depending on the context.
  - The ECM-type case alternation is also found in closely related languages like Mongolian. Fong (2019), however, reported a number of A properties of the embedded subject in Mongolian in line with (1b) in English. According to Fong (2019), the embedded subject takes part in binding and preserves idiom interpretation in Mongolian.
  - A research question is how come the ECM subject has dual properties at the same time and why languages differ about A/A' status of the subject?

### 2. ECM Subject

#### 2.1. (Korean vs) Mongolian ECM

- Consider Mongolian ECM. In Mongolian, the embedded subject takes part in binding and preserves idiom interpretation (Fong 2019). First, consider the bound variable interpretation.

- (6) a.  $\ddot{O}\ddot{o}r$ -iin-kh n'<sub>\*i/j</sub> bagsh oyuutan  $\ddot{b}\ddot{u}r$ (-iig)i sain oyuutan gej khel-sen.  
 self-gen-epth poss.3 teacher student every(-acc)good student c say-pst  
 'His/Her teacher said that every student is a good student.'
- b. Oyutan  $\ddot{b}\ddot{u}r$ -iigi  $\ddot{O}\ddot{o}r$ -iin-kh n'i bagsh [t sain oyuutan gej ] khel-sen.  
 student every-acc self-gen-epth poss.3 teacher [t good student c] say-pst  
 'Their teacher said that every student is a good student.'  
 ('For every student x, x's teacher said that x is a good student.')

- (6a) shows that in Mongolian, regardless of the Case marker, the embedded subject can be bound by a QP in the matrix clause. However, if the embedded subject is raised to the matrix clause initial position, the bound variable interpretation becomes possible. Fong (2019) argues that (6b) implies that the ECM subject drops by A-position on its way to the matrix clause-initial position. Fong (2019) assumes that the intermediate landing site is Spec-CP, which turns out to be A-position in Mongolian.
- The second piece of evidence that the ECM subject in Mongolian involves A-position property is regarding idiom interpretation.

- (7) Dorj chang-aar Bat-iin  $\ddot{n}\ddot{u}d$ (-iig) oree deer-ee gar-san gej khel-sen.  
 Dorj loud-instr Bat-gen eye(-acc) top on-refl.poss climb-pst comp say-pst  
 'Dorj said loudly that Bat was very surprised.'  
 (Lit.: 'Dorj said loudly that Bat's eyes climbed on top of themselves.')

- (7) shows that idiom interpretation is maintained regardless of Case alternation of the ECM subject in Mongolian (unlike in Korean). If the idiom interpretation is a diagnostic for A-position (7) shows that the ECM subject is in A-position in Mongolian.

## 2.2. Proleptic Properties and Korean ECM

- Korean ECM has topic-like Major Subject properties that can be linked to prolepsis (Yoon 2007, Choi 2017). Proleptic accusatives refer to the construction the matrix of which has an accusative object that is semantically related to the element in the embedded clause. Examples are given in (8) (van Koppan et al 2016):

(8) een argument waar-van ik denk dat **het** belangrijk is. (Dutch)  
 an argument which-of I think that it important is  
 'an argument of which I think that it is important'

- As shown by the Dutch (and English) example, the proleptic accusative construction is characterized by the accusative object in the matrix and its resumptive pronoun in the embedded clause. For the purpose of discussion, compare Korean with English. Below are examples of English (Davies 2005):

(9) a. Haley believes about Aubrey<sub>i</sub> that he<sub>i</sub> is the best candidate for the job.  
 b. Ariel knows about Jungmin<sub>i</sub> that the principal will give her<sub>i</sub> an award.

- The only surface difference between the English examples in (9) and the Korean prolepsis examples in (10) is that in the latter the embedded pronoun is optional. (Yoon 2007. See Fong 2019 for Mongolian examples)

(10) a. Ne-nun Cheli-lul/Cheli-eytayhay ettehkey sayngkakha-ni?  
 you-top C-acc/C-regarding how think-Q  
 'What do you think about/of Cheli?'  
 b. Na-nun Cheli-lul/Cheli-eytayhay (kunyese*k*-i) tollassta-ko sayngkakhay  
 I-top C-ACC/C-regarding that guy-nom crazy-C think  
 'I think Cheli is crazy.' [parenthesis mine]

- This paper argues that although there has been a considerable amount of debate on the identity of prolepsis in Korean, if it is assumed that Korean has it, it can be nicely subsumed under the RP analysis of the Korean ECM. That is, the proleptic property, A' property in other words, comes from the A'-property of Spec-CP in Korean, which is occupied by a null operator in the structure under consideration.

### 2.3. Korean ECM: A-property?

- In contrast to the claim by Fong (2019) about ECM in Mongolian, ECM in Korean sometimes show somewhat mixed properties. First, in fact, Yoon (2007) claims that idiom interpretation is not maintained in Korean ECM.<sup>1</sup>

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<sup>1</sup> Tests about idiom interpretation are not as solid as has been argued it to be. In contrast to the examples discussed above, the following example seems more or less to keep its idiomatic reading.

(i) a. John-i olhay seuwltay-eyse miyekkwuk-ul mekessta.  
 J-nom this year SNU-at seaweed soup-acc ate-dec

- (13) a. Hankwuksalam-un cakun kochwu-ka maypta-ko sayngkakhan-ta.  
 Koreans-top small pepper-nom hot-c think-dec  
 b. Hankwuksalam-un cakun kochwu-lul maypta-ko sayngkakhan-ta.  
 Koreans-top small pepper-acc hot-c thinks-dec  
 Literal reading; Small peppers are hot.  
 Idiomatic reading: Size/height is not a measure of toughness.  
 (13a: idiomatic, literal; 13b: \*/?/idiomatic, literal)

- Differently from Yoon (2007), however, some Koreans including me take (13b) not as bad as Yoon (2007) judges. In other words, to their ears, (13b) still has its idiomatic reading. This means that the test based on idioms are shaky and inconclusive, not as solid as Yoon (2007) argues. (13b) can be a piece of evidence that Korean ECM can have A properties as well.
- Second, binding seems to be obtained in Korean. Look at the following examples with respect to Condition (B), reproduced from (5):

- (14) a. ?Yenghi-nun [Chelswu;-ka chencay-lako] ku;-uy emeni-pota kwutkey mitnunta.  
 Y-top C-nom genius-c he-gen mother-than firmly believes  
 'Yenghi believes that Chelswu is a genius more firmly than his mother.'  
 b. (?/?)Yenghi-nun [Chelswu;-lul chencay-lako] ku;-uy emeni-pota kwutkey mitnunta.  
 Y-top C-acc genius-c his mother-than firmly believes  
 'Yenghi believes Chelswu to be a genius more firmly than his mother.'

- The fact is that there is speaker variation about the status of the examples in (14b). At least to those who take the example bad, it can be the evidence that the ECM subject is in A-position so that it brings about Condition (B) violation.
- The major evidence of A-properties of ECM subject argued for Mongolian by Fong (2019) seem to work in Korean at least with respect to some examples. So, the question is how come the embedded subject of ECM in Korean has both A and A' properties but Mongolian has only A-properties.

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'John ate seaweed soup at SNU this year.'

(Idiomatic: John failed to get admission from SNU this year.)

- b. Mmiyekkwuk-ul John-i olhay seuwltay-eyse mekessta.  
 seaweed soup-acc J-nom this year SNU-at ate-dec

(ib) can be interpreted both idiomatically and literally to my and some of my colleagues' ears. This is probably because the adverbial *seuwtay-eyse* forces the idiomatic interpretation due to the world knowledge about college entrance and *miyekkwuk* in Korean culture. Therefore, tests based on idioms must be carefully controlled.

### 3. Proposal

#### 3.1. Proposed Analysis

- To accommodate the mixed A/A'-properties the ECM subject across languages, this paper proposes an RP (Relator Phrase) analysis advocated by den Dikken (2017b). To roughly illustrate the structure, consider (15) below:

(15) ... [RP Subject<sub>i</sub> [R' [CP O<sub>i</sub> [TP (*pro*<sub>i</sub>/pronoun<sub>i</sub>) ... T] C] R] V] ....

- Den Dikken(2017b) originally proposed that his RP is advantageous in explaining the hyperraising construction, the most typical example of which is given in (16):

(16) o João parece que 'ta doente (Brazilian Portuguese)

the João seems.3sg that be.3sg sick

'John seems *like/as if/as* though he's sick.' (literal)

'João seems to be sick.'

- The gist of the proposal is that the subject is base-generated in the matrix clause and from there it binds the pronoun in the embedded clause as a bound variable.<sup>2</sup>

(17) [RP Subject<sub>i</sub> [R [CP [TP pronoun<sub>i</sub> ...

- The proposed analysis can be applied to explain the dual properties of Korean ECM avoiding the complicated matter of decision about the status of Spec-CP. The dual property of the ECM subject is explained through the analysis in which it occupies two positions at the same time. The ECM subject is base-generated in Spec-RP and it is related to the null operator O in a predication relation.
- If it is correct, A-properties of the ECM subject is captured in Spec-RP and its A'-properties in Spec-CP. This solution makes use of already existing

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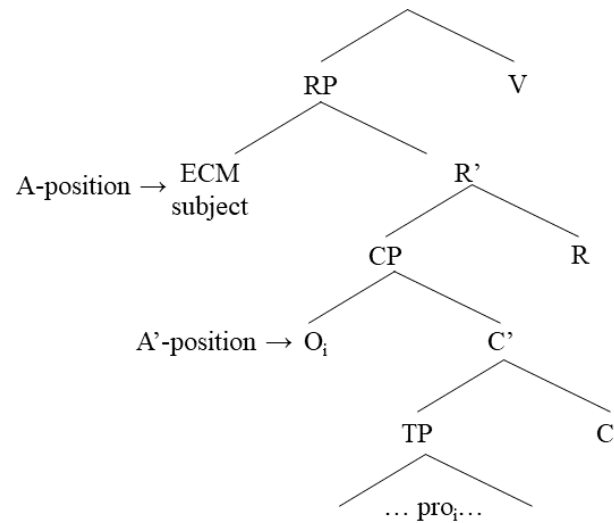
<sup>2</sup> The bound variable nature of the pronoun is evidenced by the obligatory sloppy identity reading when is followed by an elided clause.

(i) John<sub>i</sub> seems like he<sub>i</sub> is sick and Sue<sub>j</sub> does <seem like she<sub>j</sub>'s sick>, too.  
(John = he; Sue = she)

hypotheses about the argumenthood of each position.

- Let me highlight the major claims of the proposed analysis: Predication relation forms an RP, which is an inherent phase under den Dikken (2006, 2017a, 2017b); The ECM subject is base-generated in Spec-RP, which is A-position by definition; R in Korean ECM is null or C+R if C moves up to R; A null operator (O) is assumed to move from inside the embedded CP to its edge, Spec-CP, which is A'-position; The null operator binds *pro* or pronoun as a bound variable; The ECM subject is related to the embedded CP in terms of predication. This is illustrated in (18) below:<sup>3</sup>

(18)



### 3.2. Explanandum

- It is widely agreed among Korean researchers that it has topic-like Major Subject properties that can be linked to prolepsis. To recapitulate, in a prolepsis construction, a DP with a non-subject case is base-generated inside the matrix clause and the DP is resumed by a pronoun in the embedded clause (Davies 2005). Consider Korean examples again:

(19) a. Ne-nun Cheli-lul/Cheli-eytayhay ettehkey sayngkakha-ni? (=10)  
 you-top C-acc/C-regarding how think-Q

<sup>3</sup> This analysis is an extension of den Dikken's (2017b) recent proposal about hyperraising and copyraising in an attempt to remove the NP movement component from them.

'What do you think about/of Cheli?'

- b. Na-nun Cheli-lul/Cheli-eytayhay (kunyese*k-i*) tollassta-ko sayngkakhay  
I-top C-ACC/C-regarding that guy-nom crazy-C think  
'I think Cheli is crazy.' [parenthesis mine]

- Although there has been a considerable amount of debate on the identity of prolepsis in Korean, if it is assumed that Korean has it, it can be nicely subsumed under the RP analysis of the Korean ECM. That is, the proleptic property, A' property in other words, comes from the A'-property of Spec-CP in Korean, which is occupied by a null operator in the structure under consideration.
- As an alternative, Fong (2019) proposes a hyperraising analysis which assumes that Mongolian ECM is well explained under the view that ECM subject undergoes hyperraising.

- (20) a. It seems that John is smart.  
b. John seems to be smart.  
c. John seems that he is smart.

- (21) a. Bat [ margaash Dulmaa nom unsh-n gej] khel-sen. (Mongolian)  
Bat tomorrow Dulmaa.nom book read-n.pst comp] say-pst  
b. Bat [margaash Dulmaa-g nom unsh-n] khel-sen.  
Bat tomorrow Dulmaa-acc book read-n.pst] say-pst  
'Bat said that Dulmaa will read a book tomorrow.'

- Fong (2019) adopts a movement analysis of the ECM subject to Spec-CP. She, however, has a couple of problems.
- One problem is that her analysis lacks generality across languages. The analysis does not hold beyond Mongolian (and some languages discussed therein). For instance, the basic paradigm given in (7) does not hold for Korean in the least. The ECM in Korean has a vast amount of research accumulated about the case alternation possibility of the subject.<sup>4</sup>
- The other problem is the status of Spec-CP. Although the position has widely been accepted A'-position, she extensively argues that the Spec-CP in Mongolian is A-position.

### 3.3. Movement Issue Revisited

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<sup>4</sup> The early known constraint is that stative/dynamic distinction is valid (Lee 1992) but other various factors make the whole picture quite complicated (Choi 2017 and references therein).

- The approaches to the ECM subject differ about its movement. The ECM subject was analyzed to move from its original position to the matrix object position in the same way as Raising to Object (ROT, or Subject-to-Object Raising (SOR)) in English. Movement approaches, however, face many challenges as noted in Yoon (2007). One robust problem is that the movement is island-insensitive.

(22) Na-nun Mary-lul hanunil-i mopemcekila-ko sayngkakhanta.  
 I-top M-acc doing-nom exemplary-c think-dec  
 'I think that what Mary does is exemplary.'

(23) Na-nun Mary-lul ttenaki cen-ey mannassta.  
 I-top M-acc leave-n before met-dec  
 I met Mary before she left.

- (22) has a complex NP island; (23) has an adjunct island and the acc-marked NP does not cause problems with respect to islands. These examples show that the ECM subject is not island-sensitive, which argues against movement analysis.
- The second problem has to do with reconstruction. As for reconstruction, consider that a raised nominal does not reconstruct.

(24) a. ?Na-nun caki<sub>i</sub> sensayng-uy chwuchense-ka citohaksayngtul<sub>i</sub>-eykey  
 I-top self teacher-gen letter-nom advisees-dat  
 kakkak kongkay-toy-eyahanta-ko sayngkakhanta.  
 each release-pass-must-c thinks

'I believe that their teacher's letters of recommendations should be released to each advisee.'

b. \*Na-nun caki<sub>i</sub> sensayng-uy chwuchense-lul citohaksayngtul<sub>i</sub>-eykey  
 I-top self teacher-gen letter-acc advisees-dat  
 kakkak kongkay-toy-eyahanta-ko sayngkakhanta.  
 each release-pass-must-c thinks

- Bound variable reading is not possible with NP-acc as in (24b). This argues against raising because if NP-acc is raised, it would have been reconstructed and (24b) is falsely predicted to be good.
- Recall that Yoon (2007) proposed that the ECM subject undergoes major subject raising. But when the observed A-properties of the ECM subject are considered, his proposal is problematic because it cannot explain the height effect with respect to A-properties of Mongolian. Fong (2019) proposes that the movement in Mongolian is A-movement to Spec-CP. This is, however, a very costly assumption because Spec-CP has every reason to be A'-position.
- On top of it, Fong's (2019) solution has no crosslinguistic motivation in that it does not explain the A'-properties of Korean ECM. So, this paper adopts the



RP analysis of den Dikken (2006, 2017a, 2017b) to accommodate the dual properties of Korean ECM and the single A-property of Mongolian ECM.

#### 4. Conclusion

- So far, the dual properties of the ECM subject in Korean have been discussed and explained in terms of the RP (Relator Phrase) analysis of den Dikken (2006, 2017a, 2017b).
- The embedded subject of ECM in Korean has been discussed to have both A and A' properties. To accommodate the dual properties of Korean ECM, this paper proposed the following: Predication relation forms an RP, which is an inherent phase a la den Dikken (2006, 2017a, 2017b); The ECM subject is base-generated in Spec-RP, which is A-position by definition; R in Korean ECM is null or C+R if C moves up to R; A null operator (O) is assumed to move from inside the embedded CP to its edge, Spec-CP, which is A'-position; The null operator binds *pro* or pronoun as a bound variable; The ECM subject is related to the embedded CP in terms of predication.
- The proposed analysis is extended to Mongolian ECM with a special reference to the difference with Korean.

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