

On the nature of the restrictions for Multiple Subject Constructions in Korean*

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Yoon, Jeong-Me. 2018. On the nature of the restrictions for Multiple Subject Constructions in Korean. *Linguistic Research* 35(3), 415-447. In this paper, I discuss two different approaches to the Characteristic Property Condition for Multiple Subject Constructions in Korean, i.e., the interpretive approach and the processing approach. Assuming that the CPC is the ultimate condition for MSCs, the former claims that the CPC holds due to the special interpretive properties of SpecIP in Korean while according to the latter, the CPC is a processing restriction for filler-gap constructions incurring heavy processing loads. In this paper, I provide four arguments for the latter: (i) the processing approach can better explain the sub-restrictions figuring in the CPC; (ii) the processing approach can better explain the cumulative nature of the sub-restrictions figuring in the CPC; (iii) the processing approach can better explain the fact that the CPC holds for various filler-gap constructions in Korean other than MSCs; (iv) the processing approach can better explain the fact that the CPC also holds for filler-gap constructions in languages like English which lack *pro*. One syntactic implication of my claim is that simply appealing to the availability of base-generated *pro* chains cannot be an answer for the absence of island effects observed in many constructions in Korean including MSCs. (Myongji University)

Keywords multiple subject constructions, characteristic property condition, island constraint violations, processing restrictions

1. Introduction

Multiple Subject Constructions (MSCs henceforth) as shown in (1) are one of the unique constructions in Korean, and they have been extensively discussed in Korean syntax in relation to various issues such as the assignment of multiple Nom Cases, violations of Island Constraints, and the restrictions well-formed MSCs need to satisfy.

* I'd like to thank the anonymous reviewers for their comments.

- (1) *Minho-ka apeci-ka pwuca-i-si-ta.*
 M-Nom father-Nom rich-be-Hon-Dcl
 ‘As for Minho, his father is rich.’

Of these issues, what I will focus on in this paper is the restrictions holding for MSCs.¹ Various restrictions such as the Stative Predicate Condition, the Characteristic Property Condition (CPC, from now on), and the Subject Preference Condition have been proposed, and one question we can ask is why such diverse conditions should hold for MSCs. In this paper, I discuss two different approaches to this question, i.e., the interpretive approach of J. Yoon (2004, 2007) and the processing approach I proposed (J.-M. Yoon 2011, 2015). The two proposals concur in assuming that the CPC is the ultimate condition well-formed MSCs need to satisfy and that other conditions can be subsumed under it. However, they differ with respect to what the nature of the CPC is and why it should hold for MSCs. As for J. Yoon, the CPC is mainly an interpretive condition, and the reason it holds for MSCs is largely tied to the special interpretive properties of SpecIP, the position for the first, non-argument subjects, which I will call ‘Major Subjects,’ following J. Yoon (1987).² In contrast, in my case, the CPC has a processing nature, to be more specific, it is the result of the interplay of various processing factors holding for filler-gap constructions in general.

The goal of this paper is to compare these two approaches to the CPC and argue for the processing approach. In short, my claim is that various restrictions known to hold for MSCs have a processing nature and that whether or not a MSC satisfies the CPC is cumulatively determined by the interplay of them. Crucially, I will claim that the CPC is not a restriction specific to MSCs in Korean but that it holds more generally for filler-gap constructions incurring heavy processing loads. What will be also discussed in this paper is the implications the processing approach has for the syntax of MSCs and more generally for the analysis of Island Constraint violations in general. I will claim that simply appealing to the availability of base-generated pro chains cannot be

1 This issue, as it will turn out, will be closely related to the absence of island effects.

2 As for the inner, argument subject, it will be called ‘Grammatical Subject’, also following J. Yoon.

a solution for the absence of island effects in various constructions in Korean, MSCs being one of them. Instead, I will suggest that the uniform movement approach should be taken for both the Korean-type languages, where *pro* is available, and the English-type languages, which lack *pro*.

2. The CPC as the ultimate restriction

2.1 Restrictions for MSCs

In this section, I will review various restrictions previously proposed to hold for MSCs.

2.1.1 Predicate type restrictions

One of the well-known restrictions for MSCs is that they are subject to certain predicate type restriction. As far as I know, three different factors have been identified as figuring in this although their effects tend to overlap. They are aspect, agentivity, and stage vs. individual level distinction.

As for the aspectual restriction, the original observation was that MSCs are best when the predicates are statives, as shown below (J.-M. Yoon 1989; Suh 1992, among others).

- (2) a. *Minho-ka apeci-ka uysa-i-si-ta.*
M-Nom father-Nom doctor-be-Hon-Dcl
'As for Minho, his father is a doctor.'
- b. **?Minho-ka apeci-ka naccam-ul cwumwu-si-ess-ta.*
M-Nom father-Nom nap-Acc sleep-Hon-Pst-Dcl
'As for Minho, his father took a nap.'

The Stative Predicate Condition was further developed into the Non-activity Condition by Suh (2003), according to which, not only stative predicates but also achievement predicates can license MSCs while accomplishment and activity predicates cannot.³ This condition is based on the data like (3) below: *cvukta* in

(3a) is an achievement verb and *maykcwu-lul yel pyeng masita* is an accomplishment verb.

- (3) a. Minho-ka hyeng-i cwuk-ess-ta.
 M-Nom brother-Nom die-Pst-Dcl
 'As for Minho, his brother died.'
- b. *?Minho-ka hyeng-i maykcwu-lul yel pyeng masi-ess-ta.
 M-Nom brother-Nom beer-Acc ten bottles drink-Pst-Dcl
 'As for Minho, his brother drank ten bottles of beer.'

Data like (4) below, however, show that the aspectual property of the verb alone is not sufficient for explaining the acceptability of a MSC.

- (4) a. ??Kim kyoswu-ka haksayng-tul-i silhem-ul machi-ess-ta.
 Prof. Kim-Nom student-Pl-Nom experiment-Acc finish-Pst-Dcl
 'As for Prof. Kim, his students finished the experiment.'
- b. Ku nayngcangko-ka elum-i manhi nok-ess-ta.
 that refrigerator-Nom ice-Nom a.lot melt-Pst-Dcl
 'As for the refrigerator, the ice in it melted a lot.'

(4a) is degraded although it has an achievement predicate while (4b) is acceptable despite the fact that it has an accomplishment predicate. As a solution, I proposed in J.-M. Yoon (2009) that the predicate type restriction for MSCs can be better captured in terms of agentivity rather than aspect. In short, I claimed that there is a preference for non-agentive predicates in MSCs.

Finally, another predicate type-related restriction for MSCs made by J. Yoon (2004) concerns the distinction between stage-level predicates and individual-level predicates. According to this proposal, there is a preference for individual-level predicates in MSCs. This restriction can easily explain the difference between MSCs like (2a) and (2b), which was explained in terms of stativity. Note, however, that MSCs like (3a) are counterexamples to this restriction: (3a) is acceptable although the verb *cwukta* 'die' is a stage-level predicate.

3 This condition is based on Dowty's (1979) four-part classification of predicates depending on their aspectual properties.

2.1.2 Subject Preference Condition

Although often taken for granted, another basic restriction for MSCs is that the Major Subject (MS) is generally related to the subject position of the complex predicate formed by the rest of the sentence (J.-M. Yoon 2011). The unacceptability of the following MSCs, where the MS is related to the gap in the direct object (DO) position, shows the effects of this condition.

- (5) a. *Ku hwaka-ka_i Minho-ka [e_i kulim]-ul kaci-ko iss-ta.⁴
 that painter-Nom M-Nom picture-Acc have-C be-Dcl
 'As for that painter, Minho owns his painting.'
- b. *Ku yenghwa-ka_i Minho-ka e_i cohaha-n-ta.
 the movie-Nom M-Nom like-Prs-Dcl
 'As for the movie, Minho likes it.'

J. Yoon (2007) also discusses a similar restriction by discussing the degradedness of MSCs like (6).

- (6) *Mikwuk-yenghwa-ka_i [John-i cikum ce kukcang-eyse e_i
 American-movie-Nom John-Nom now that theater-Loc
 po-ko iss-ta].
 see-Comp be-Dcl
 'It is an American movie that John is watching in that movie theater
 now.' (J. Yoon 2007: 625)

Subject preference is more clearly seen in MSCs containing a modifying relative clause as shown below.

- (7) a. Ku ai-ka_i [[e_i e_j ip-ko iss-nun] os_j]-i
 that child-Nom wear-C be-Adn clothes-Nom
 yeppu-ta.
 pretty-Dcl

4 Until section 4, I will represent the null elements in MSCs simply as *e* in order to avoid the question whether MSCs, syntactically, involve movement or base-generation.

- 'As for that child, the clothes she is wearing is pretty.'
- b. *Ku ai-ka_i Minho-ka [[e_i e_j ip-ko iss-nun]
 that child-Nom M-Nom wear-C be-Adn
 os_j]-ul cohaha-n-ta.
 clothes-Acc like-Pst-Dcl
 'As for that child, Minho likes the clothes she is wearing.'
- c. ?*Ku os-i_j [[e_i e_j ip-ko iss-nun] ai_i]-ka ttoktokha-ta.
 that clothes-Nom wear-C be-Adn child-Nom smart-Dcl
 'As for that clothes, the child who is wearing it is smart.'

Unlike in (7a), where the MS is linked to the subject gap of the relative clause modifying the Grammatical Subject (GS), in (7b), the MS is linked to the subject gap of the relative clause modifying the DO, and in (7c), the MS is linked to the DO gap of the relative clause modifying the GS. Although these kinds of MSCs are generally ignored when discussing MSCs, they show that in order for a MSC to be acceptable, it is preferable for the MS to be related to a gap in the subject position of the relative clause modifying the GS.⁵

2.1.3 Preference for generic/habitual interpretation

The difference between MSCs (6) and (8) below can be explained neither in terms of any predicate type restriction nor in terms of the Subject Preference Condition.

- (8) Mikwuk-yenghwa-ka_i [salamtul-i enu kukcang-eyse-na
 American-movie-Nom people-Nom which theater-Loc-ever
 yocum swipkey e_i po-l swu iss-ta/po-n-ta].
 these.days easily see-C can be-Dcl/see-Prs-Dcl
 'American movies can be seen by people in any movie theater.'
 (J. Yoon 2007: 625)

To explain this, J. Yoon appeals to the fact that (8) has a generic or habitual

⁵ A similar observation was made by Han and Kim (2004), although not explicitly.

interpretation, while (6) has an episodic interpretation. Based on the data like this, he claims that the acceptability of a MSC is sensitive to the generic/habitual vs. episodic interpretation of the complex predicate in it.

2.1.4 Characteristic Property Condition

Yet another well-known restriction proposed for MSCs is that the MS should be something that can be characterized by the rest of the sentence (Kuno 1973; Jang 1998; J. Yoon 2007; Kim et al. 2007; J.-M. Yoon 2011).⁶ What should be noted about the CPC, first of all, is that its effects greatly overlap with those of the other conditions discussed so far. So most of the MSCs which we have explained in terms of some other conditions can also be explained in terms of the CPC.

For example, we observe that MSCs violating some sort of predicate type restriction such as (2b) also violate the CPC: *Minho* cannot be characterized by the fact that his father took a nap. Likewise, the acceptability of (8), which is an apparent counterexample to the Subject Preference Condition and was explained in terms of the preference for generic/habitual interpretation by J. Yoon, can also be explained in terms of the CPC: we can say that the MS *mikwuk yenghwa* can be characterized by the fact that people can see it in any movie theater. Note also that there is a great deal of overlap between the Subject Preference Condition and the CPC. So the contrast between (7a) and (7b) can be also explained in terms of the CPC: a child can be characterized by the fact that the clothes he/she is wearing is pretty but it is difficult to say that a child can be characterized by the fact that somebody likes the clothes he/she is wearing.

2.2 The CPC as the ultimate restriction

One thing we can note about the various restrictions proposed for MSCs is that their effects tend to overlap. In particular, we observe that the effects of the CPC overlap mostly with those of the others, as already noted in the previous section. This naturally raises a question whether the CPC is a separate restriction

6 Kuno (1973) called the CPC 'Aboutness Condition'.

independent of the other restrictions, and it has led researchers like J. Yoon and myself to propose that the CPC is the ultimate condition for MSCs and that other conditions can be subsumed under it. The two proposals, however, differ with respect to what the nature of the CPC is and why such a condition should hold for MSCs. In the following sections, I will discuss each approach in detail and compare the differences.

3. Two different approaches to the CPC

3.1 The interpretive approach (J. Yoon 2004, 2007)

Assuming that the CPC is the ultimate condition well-formed MSCs need to satisfy, J. Yoon (2004, 2007) proposes that other restrictions previously proposed for MSCs can all be subsumed under the CPC. To be specific, he suggests that the CPC can be “unpacked” into three different parts as shown below.

- (9) a. Preference for generic/habitual versus episodic interpretation of Sentential Predicate
- b. Preference for the lexical predicate within the Sentential Predicate to be an individual-level predicate
- c. Preference for the Major Subject to be more salient than the Grammatical Subject (J. Yoon 2007: 626)

What Preferences (a) and (b) aim to capture is obvious: Preference (a) explains the differences in acceptabilities in data like (6) and (8) while Preference (b) explains the data like (2a-b). As for Preference (c), what J. Yoon intends to capture by it is the unacceptability of MSCs like (6), where the MS is linked to a gap in non-subject positions. To be specific, J. Yoon’s explanation for the unacceptability of (6) runs as follows.

In (6), the VP is predicated of the GS *John*, but the sentential predicate is predicated of the MS *mikwuk-yenghwa*. Given that the MS is co-indexed with a gap in the DO position in the complex predicate, this “creates a potential conflict since predication by the VP treats the GS as salient while predication by the

sentential predicate treats *mikwuk-yenghwa* as salient” (J. Yoon 2007: 626). Crucially, the MS *mikwuk-yenghwa* is not more salient than the GS *John* since the former functions as the DO in the complex predicate while the latter functions as the subject.⁷

Now turning to the important question of why MSCs should satisfy an interpretive condition like the CPC, it seems that J. Yoon is viewing the CPC as an interpretive condition which sentential predicates in MSCs need to satisfy, meaning that a sentential predicate should express a characteristic or distinguishing property of the MS, which is base-generated in SpecIP and binds a null pronoun inside the sentential predicate.⁸

(10) *Minho-ka_i [[pro_i apeci]-ka pwuca-i-si-ta].*

Granted, a further question to ask is why the CPC should hold for such a case, and J. Yoon is mainly deriving the answer from the proposal that the MS in SpecIP is a categorical subject in the sense of Kuroda (1972) and Ladusaw (1994).⁹ Given that he unpacks the CPC into the three preferences, the question then boils down to how each preference can be explained in terms of the categorical subject nature of the MS. I will turn to this in section 4, in which I compare the interpretive approach and the processing approach.

3.2 The processing approach (J.-M. Yoon 2011, 2015)

Also noting extensive overlap between the effects of the CPC and other restrictions for MSCs, I also suggested that the CPC is the ultimate condition for MSCs (J.-M. Yoon 2011). To be more specific, as an answer for the extensive overlap, I suggested that the CPC is not an independent condition but that whether or not a MSC satisfies the CPC is determined by the interplay of various other restrictions holding for MSCs. The question why the CPC holds for

⁷ Various questions arise for this account, and they will be discussed in section 4.

⁸ So we can say that there are two important components in this account: (i) the MS occupies SpecIP; and (ii) MSCs involve sentential predication. Of these two, it seems that what plays a more important role in J. Yoon’s account of the CPC is (i) and that (ii) does not play any significant role. See section 4 for more on this.

⁹ A similar proposal was made by Heycock and Doran (2003)

MSCs then boils down to why such diverse restrictions should hold for MSCs, and unlike J. Yoon, I suggested that they hold due to processing reasons.

To be specific, my claims are that (i) MSCs involve filler-gap dependencies over an island boundary, which are difficult to process; (ii) since MSCs are difficult to process, they are subject to processing restrictions; (iii) various restrictions known to hold for MSCs thus are processing restrictions; (iv) the acceptability of a MSC is determined by the cumulative processing loads determined by the interplay of various processing restrictions, i.e., it is acceptable when the cumulative processing loads it incurs do not exceed a threshold.

Granting that the CPC has a processing nature, the success of the processing approach to the CPC thus lies in whether various restrictions holding for MSCs can be explained in terms of processing. I will discuss this in the following section.

4. Arguments for the processing approach

In the previous section, we have seen that both the interpretive approach and the processing approach take the CPC as the ultimate restriction for MSCs but that the two differ with respect to how they view its nature. In this section, I will argue for the processing approach by comparing the two approaches in detail.

4.1 Explaining the sub-restrictions figuring in the CPC

We have already seen that the CPC, in both the interpretive approach and the processing approach, is not a single, independent condition but can be decomposed into various sub-restrictions. This means that whether or not each proposal succeeds in explaining why a condition like the CPC should hold for MSCs boils down to how successfully each proposal can explain the sub-restrictions figuring in the CPC. I thus compare how the individual sub-restrictions can be explained in each proposal.

First, let us consider the interpretive approach of J. Yoon. The question is how the three preferences into which he unpacks the CPC can be explained, and

one way to explain them in the interpretive approach, as noted, is to appeal to the categorical subject nature of the MS.

According to the categorical-thetic distinction, a categorical sentence is assumed to consist of two separate acts of (i) recognizing an object and (ii) affirming or denying what is expressed by the predicate about it while a sentence expressing a thetic judgment simply affirms the existence of an eventuality of a certain type (Kuroda 1972; Ladusaw 1994). For example, sentence (11a) is a typical categorical sentence while sentence (11b) is a typical thetic sentence.

- (11) a. *Minho-ka ttokttokha-ta.*
M-Nom smart-Dcl
‘Minho is smart.’
- b. *Minho-ka ku chayk-ul ilk-ess-ta.*
M-Nom that book-Acc read-Pst-Dcl
‘Minho read the book.’

Another proposal about categorical sentences is that categorical subjects occupy SpecIP while thetic subjects appear in SpecvP/VP in languages like Korean and Japanese (Kuroda 1972; Heycock and Doron 2004; J. Yoon 2007).

Granting this, let us examine how the three preferences figuring in the CPC can be explained in terms of the categorical subject status of the MS. Of the three preferences, it appears that Preferences (a) and (b) can be explained rather straightforwardly in terms of the categorical-thetic distinction.

First, we can easily see that Preference (b) can be explained in terms of the categorical subject status of the MS, given that categorical sentences tend to involve individual-level predicates, as we see in (11).¹⁰

As for Preference (a), it can be also explained considering that categorical sentences tend to have a generic or habitual interpretation. For example, the predicate in (11a), being an individual-level predicate, expresses a more generic property of the subject than the predicate in (11b), which is a stage-level

¹⁰ Note also that independently of the categorical-thetic distinction, SpecIP is known to be the position for the subjects of individual-level predicates in languages like Korean and Japanese (Diesing 1988).

predicate. We can say the same for (12): the predicate *ku chak-ul culkye ilk-nun-ta* in (12), which is a categorical sentence, has a more generic/habitual meaning than *ku chak-ul ilk-ess-ta* in (11b), a thetic sentence.

- (12) *Minho-ka ku chayk-ul culkye ilk-nun-ta.*
 M-Nom that book-Acc like to read-Prs-Dcl
 ‘Monho likes to read that book.’

It then is explained, rather trivially, why Preference (a) should hold for MSCs: assuming that (i) the MS occupies SpecIP; (ii) SpecIP is the position for categorical subjects; (iii) predicates in categorical sentences tend to have a generic or habitual interpretation, it follows that MSCs will observe Preference (a).

What is problematic is Preference (c), i.e., the preference for the MS to be more salient than the GS, which is to rule out MSCs like (6), where the MS is linked to a gap in non-subject positions. Unlike Preferences (a) and (b), I do not see any way to derive this preference from the categorical subject status of the MS. So the question is why such a preference should hold, and as far as I know, it does not have any principled explanation, at least in J. Yoon’s account.

To see this more clearly, let us reexamine J. Yoon’s account of Preference (c), which says that the MS should be more salient than the GS, in more detail. First of all, let us consider what J. Yoon means by ‘salience.’ Although he is not explicit on this, We can surmise that what he is referring to is the salience in the grammatical function (GF, henceforth) hierarchy: in the GF hierarchy, the syntactic function of subject is assumed to be higher than direct object, which is higher than indirect object (Baker 1988; Grimshaw 1990; Jackendoff 1990).

- (13) GF Hierarchy
 subject > direct object > indirect object > others

Granting this, it appears that what J. Yoon is suggesting by Preference (c) is that the GF hierarchy in the complex predicate part of a MSC should be maintained in the MSC including the MS. For example, the reason MSC (6) is unacceptable is because the MS, to be more precise, the gap bound by the MS, functions as the DO in the complex predicate *Johm-i cikum ce kukcang-eyse e po-ko*

iss-ta, while the GS *John* functions as the subject, which means that the GF hierarchy in the complex predicate part of the MSC is not maintained in the whole MSC.

Now, the next question we need to ask is why this should be the case, i.e., why the GF hierarchy in the complex predicate part of a MSC should be maintained in the whole MSC containing the MS, and as far as I can see, there is no principled explanation. There are two different predication relations in MSCs, and the existence of two predication relations generally signals the existence of two different clauses. Given that the GF hierarchy concerns the hierarchical relation in a clause, there is no reason why the MS and the GS, the subjects of two different clauses, should interact in the GF hierarchy.

We can see this problem more clearly if we consider MSCs like (14) involving a relative clause modifying the GS.

- (14) ?**Ku os-i_j [[e_i e_j ip-ko iss-nun] ai-ka ttoktokha-ta].*
 that clothes-Nom wear-C be-Adn child-Nom smart-Dcl
 'As for that clothes, the child who is wearing it is smart.'

In (14), what is predicated of by the sentential predicate is *ku os* 'the clothes', while what is predicated of by the AdjP *ttoktokha-ta* is (*ip-ko iss-nun*) *ai* 'child.' Given that (14) satisfies the other two preferences, the reason (14) is unacceptable, in J. Yoon's account, should be due to the violation of Preference (c), to be more specific, because the MS *ku os* is not more salient than the GS *ai*: *ku os* is the DO of the relative clause modifying the GS while *ai* is the subject. The question, however, is why the GF hierarchy in the relative clause modifying the GS should be maintained in the MSC.

As one might have noticed, what is interesting to note about J. Yoon's account of Preference (c) is that what he is trying to achieve by it is a kind of Relativized Minimality effects for A-movement, which bans A-movement of non-subjects over the subject (Rizzi 1990). Relativized Minimality effects, however, cannot be employed in his account since he is adopting the base-generation approach to MSCs, not the movement approach. Given that J. Yoon is assuming that the MS is base-generated in SpecIP and binds a null pronoun inside the complex predicate, there is no way to block the linking of

the MS to a gap inside the complex predicate.

In addition, setting aside the above problem, it is not clear to me how the typical, acceptable MSCs like (15) satisfy Preference (c).

- (15) *Minho*-ka [[*e* *apeci*]-ka pwuca-i-si-ta].
 M-Nom father-Nom rich-be-Hon-Dcl
 ‘As for *Minho*, his father is rich.’

According to J. Yoon’s account, the MS *Minho* should be more salient than the GS *apeci* in the GF hierarchy. The problem is that it is not clear in what sense this is the case: *Minho* is the modifier of *apeci*, which is the subject of the complex predicate, and thus it is difficult to say that the former is more salient than the latter in the GF hierarchy.¹¹

To summarize, the preceding discussion shows that not all the sub-components of the CPC are adequately explained in the interpretive approach. Although Preferences (a) and (b) could be derived from the categorical subject status of the MS, Preference (c) remains unexplained.

Now let us turn to the processing approach. I proposed that the CPC is not an independent condition but that native speakers feel that it is satisfied when a MSC satisfies various sub-restrictions such as the Non-agentivity Condition, which have a processing nature. The explanation for each sub-restriction is as follows.¹²

First, concerning the predicate type restrictions such as the Non-activity or Non-agentivity Condition, I proposed that they are the processing restrictions holding not just for MSCs but more generally for filler-gap constructions that involve an island configuration and thus incur heavy processing loads. As support for this proposal, I showed that aspectual restrictions similar to those

11 One possible explanation is to say that the possessor is more salient than the one possessed, assuming that the GF hierarchy is calculated inside the GS: *Minho* is the possessor and *apeci* is the one possessed. Alternatively, we might say that MSCs like (15) violate Preference (c) but are acceptable since they satisfy other preferences, in particular, Preference (a). This is so since in J. Yoon’s account, Preference (a) can override the other preferences, as we will see in section 4.2. If so, we may say that typical MSCs like (15) violate Preference (c) but are nevertheless acceptable since they satisfy Preference (a).

12 See J.-M. Yoon (2011) for a more detailed explanation.

holding for MSCs also hold for some filler-gap constructions in English, as illustrated below.

- (16) a. This is a paper that there really must be someone who understands.>
b. This is a paper that we really need to find someone who understands. >
c. This is a paper that we really need to talk to someone who understands.
(Kluender 1992: 247)

Sentences (16a-c) show that there is a gradual difference in the acceptability of the sentences involving double relativization in English depending on the aspectual property of the predicate: we observe that double relativization is best when the predicate is a stative predicate as in (16a) and worst when it is an activity predicate as in (16c).

The question is how this kind of variation in acceptability can be explained, and according to Kluender (1992), it can be attributed to the correlation between the aspectual property of a verb and its referential specificity. To be specific, his claim is that the more activity-like a predicate is, the more referentially specific it is and accordingly, the heavier processing load it incurs.

As for the Non-agentivity Condition, note, first of all, that its effects generally overlap with those of the aspectual restriction given that stative predicates, which are most common in MSCs, are non-agentive predicates. As for the cases not handled in terms of aspect alone, I proposed in J.-M. Yoon (2011) that there can be a correlation between agentivity and referential specificity. To be specific, I proposed that agents, other things being equal, are referentially more specific than non-agents and thus incur heavier process loads than non-agents, based on various theoretical proposals about agents and non-agents.¹³

Turning to the preference for generic or habitual interpretation (i.e., Preference (a) of J. Yoon), it can be also explained in terms of processing given that one of the crucial factors affecting processing is the referential specificity of moving or intervening elements. This is well illustrated in the Predication Principle of Kluender (1992).

13 See J.-M. Yoon (2011) for a more detailed discussion on this.

(17) Predication Principle

Initial argument expression NPs must be as referentially specific as possible; all heads and specifiers occurring in complex predicates must be as non-specific in reference as possible. (Kluender 1992: 247)

What the Predication Principle says is that the more a sentence involving movement violates the Predication Principle, the heavier processing load it will incur and that the heavy processing load will make the sentence cumulatively unacceptable.

As an example, the contrast between (18a) and (18b), which J. Yoon will explain in terms of Preference (a), can be easily explained in the processing approach.

- (18) a. (?)Minho-ka_i manhun salamtul-i [e_i apeci]-lul
 M-Nom many people-Nom father-Acc
 conkyengha-n-ta. >
 respect-Prs-Dcl
 ‘As for Minho, many people respect his father.’
- b. ?*Minho-ka_i Sumi-ka [e_i apeci]-lul conkyengha-n-ta.
 M-Nom S-Nom father-Acc respect-Prs-Dcl
 ‘As for Minho, Sumi respects his father.’

We can easily see that (18a), which has the non-specific plural NP, *manhun salamtul*, as the GS, has a more generic interpretation than (18b), which has the specific, singular NP, *Sumi*, as the GS. Seen in terms of processing, the difference in the acceptability of (18a) and (18b) can be readily explained since the GS will count as an element intervening the filler (MS) and the gap inside the complex predicate and thus processing will be facilitated if it is referentially less specific as in (18a).¹⁴

14 As one reviewer points out, along with the prediction that the referential specificity of the GS, an intervening element, will affect the acceptability of a MSC like (18a-b), another prediction of the Predication Principle is that the referential specificity of the MS should also matter. For example, we expect that there should be a difference in the acceptability of MSCs like (ia) and (ib), and this prediction is borne out: (ia) is more acceptable than (ib).

Finally, turning to the question why MSCs are subject to the Subject Preference Condition, which the interpretive approach fails to provide a satisfactory explanation, the processing approach can provide the following explanation. In the typical MSCs, where the MS is linked to a gap in the GS, for example, in (1) repeated as (19) below, no referential elements intervene between the MS (filler), and the null element (gap). In contrast, in MSCs like (18a-b), the GS intervenes between the MS and the gap. As a result MSCs like (18a-b) will incur heavier processing loads than MSCs like (19) and thus will be more difficult to process.

(19) *Minho-ka_i [e_i apeci]-ka pwuca-i-si-ta.*

To summarize, in this section, I have shown that various sub-restrictions figuring in the CPC can be better explained in the processing approach than in the interpretive approach.

4.2 The cumulative nature of the CPC

In this section, I will compare the two approaches by addressing another important question we should ask about the sub-restrictions figuring in the CPC, i.e., how they interact to make a MSC acceptable or not acceptable. Does a MSC have to satisfy all the sub-restrictions to be acceptable or does it have to satisfy only one of them?

First, let us consider the question under the interpretive approach. Given that the CPC is decomposed into three preferences, the question is exactly when we can say that a MSC satisfies the CPC and thus is acceptable, and we can immediately see that not all the three preferences need to be satisfied. This is so

-
- (i) a. (?)*Kim tayphyo-ka_i manhun salamtul-i [e_i pwuin]-ul silheha-n-ta.*
 President Kim-Nom many people-Nom wife-Acc don't.like-Prs-Dcl
 'Many people don't like President Kim's wife.'
- b. ?**Etten namca-ka_i manhun salamtul-i [e_i pwuin]-ul silheha-n-ta.*
 some man-Nom many people-Nom wife-Acc don't.like-Prs-Dcl
 'Many people don't like a man's wife.'

A similar observation was made by Kim et al. (2007): they note that a MSC cannot have an indefinite pronoun as the MS.

given the data like (8) and (20), which are apparent counterexamples to Preference (c) but are nevertheless acceptable.

- (20) Ilen chayk-i_i [salamtul-i e_i culkye ilknunta].
 this.kind book-Nom people-Nom enjoying read
 ‘As for/it is this kind of book (that) people enjoy reading.’
 (J. Yoon 2007: 625)

As already shown, J. Yoon’s explanation for MSCs like these is that they are acceptable since they satisfy Preference (a), i.e., the preference for generic or habitual interpretation. This clearly shows that it is not the case that a MSC needs to satisfy all three preferences in order to be well-formed.

Secondly, let us examine if it is sufficient for a MSC to satisfy only one sub-restriction of the CPC in order to be acceptable. This, certainly, is not the case, either, given that MSC (2b), repeated as (21) below, satisfies Preference (c), i.e., the subject preference, but is still degraded.

- (21) *?Minho-ka apeci-ka naccam-ul cwumwu-si-ess-ta.
 M-Nom father-Nom nap-Acc sleep-Hon-Pst—Dcl
 ‘As for Minho, his father took a nap.’

So it appears that satisfying only one sub-restriction is not sufficient.

The preceding discussion shows that the CPC works neither conjunctively nor disjunctively. Now, the remaining possibility we could think of is that well-formed MSCs need to satisfy at least two preferences, but even this is not the case, either, given that MSCs like (8) and (20) satisfy only Preference (a) but are acceptable.¹⁵ So the question remains exactly when a MSC counts as satisfying the CPC and is acceptable: in some cases, satisfying only one preference seems sufficient for satisfying the CPC and making a MSC acceptable but in other cases, more than two should be satisfied.

A similar state of affairs holds for the processing approach, but note that it

¹⁵ Note that Preference (a) of J. Yoon often overrides the other two preferences in that a MSC satisfying it is acceptable even if it violates the other two. In this sense, it appears that Preference (a) is not a condition on par with Preferences (b) or (c).

is not a problem for the processing approach, unlike for the interpretive approach. It is because a hallmark of processing restrictions is that they work cumulatively. Given that various restrictions known to hold for MSCs have a processing nature, what matters for the acceptability of a MSC is its cumulative processing loads, and as long as the cumulative processing loads are kept under a certain threshold, it does not matter which processing restriction is violated or how many are violated.¹⁶ The processing approach thus enables us to explain the interaction of various sub-restrictions holding for MSCs.

To summarize, in this section, I have shown that J. Yoon's interpretive approach fails to explain exactly how the three preferences figuring in the CPC interact to make a MSC acceptable or unacceptable. The processing approach, in contrast, had no difficulty, given the cumulative nature of processing restrictions figuring in the CPC.

4.3 The CPC for other constructions in Korean

Another strong argument against the interpretive approach to the CPC is that the CPC is not specific to MSCs but also holds for other constructions in Korean such as Subject-to-Object Raising Constructions (SORCs), Double Relative Constructions (DRCs) and Topic Constructions (TopicCs) with a Complex NP Island Constraint violation (J.-M. Yoon 2015).

First, it has been noted by researchers like J. Yoon (2004, 2007) and myself (J.-M. Yoon 1989, 2015) that SORCs share the same restrictions with MSCs. As for DRCs, Han and Kim (2004) observed that they share the same restrictions as MSCs and based their analysis of DRCs in Korean on it. I also made a similar observation (J.-M. Yoon 2011, 2015): I suggested that the CPC also holds for DRCs, although more weakly.¹⁷ Finally, as for TopicCs, Kuno (1976) observed

16 A strong merit of the processing approach thus is that it enables us to explain not only the fact that there is extensive overlap between the effects of various sub-restrictions figuring in the CPC but also the fact that most of them have counterexamples.

17 Kim (2017) also made a similar observation about relativization. He suggested that the acceptability of double relativization in Korean is subject to what he calls the Characterization Constraint, as shown below.

(i) Characterization Constraint

What is denoted by a relative clause must be appropriate for characterizing a head NP

that TopicCs involving a Complex NP Island Constraint violation are subject to the interpretive condition of semantic transparency, which is almost equivalent to the CPC.¹⁸ I also made a similar observation in my previous papers (J.-M. Yoon 2011, 2015). As an example, the following data illustrate that the aforementioned constructions are all subject to the predicate type restrictions similar to those holding for MSCs.¹⁹

(22) SORCs

- a. Minswu-nun Sumi-lul_i [e_i ttoktokha-ta-ko] sayngkakha-n-ta.
 M-Top S-Acc smart-Dcl-C think-Prs-Dcl
 'Minho thinks Sumi to be smart.'
- b. ?*Minswu-nun Sumi-lul_i [e_i naccam-ul ca-ess-tako]
 M-Top S-Acc nap-Acc sleep-Pst-C
 sayngkakha-n-ta.
 think-Prs-Dcl
 'Minho thinks Sumi to have taken a nap.'

(23) DRCs

- a. [[[e_i e_j salangha-nun] namca_j]-ka haksayng-i-n] yeca_i
 love-Adn man-Nom student-be-Adn woman
 'the woman_i [who_i the man_j [whom_j e_i loves e_j] is a student]'
- b. ?[[[e_i e_j salangha-nun] namca_j]-ka naccam-ul ca-n] yeca_i
 love-Adn man-Nom nap-Acc sleep-Adn woman
 'the woman_i [who_i the man_j [whom_j e_i loved e_j] took a nap]'

referent.

In order for a relative clause to properly characterize a head NP,

- (a) the head NP referent and its situation must be directly related to each other, or
 (b) the upper situation should be coherent with the lower situation, and/or
 (c) the upper situation should be coherent with the head NP referent (Kim 2017: 197)

Although Kim is claiming that this condition is semantico-pragmatic in nature, I think it is quite similar to the CPC I am discussing in this paper.

18 To be more specific, taking a semantic approach to island effects, Kuno claimed that topicalization out of a CNP island is subject to the condition of semantic transparency. He then suggested that the degree of transparency is determined by various factors such as the degree to which the subject can be presupposed or the degree of genericity of the predicate. What is interesting to note is that the effects of the Semantic Transparency Condition are equivalent to those of the CPC.

19 For the full data, see J.-M. Yoon (2015).

- (24) TopicCs with a Complex NP Island Constraint violation
- a. Ku yeca-nun_i [[e_i e_j ip-ko iss-nun] os_j]-i yeppu-ta.
 that woman-Top wear-Prog-Adn clothes-Nom pretty-Dcl
 'As for that woman, the clothes she is wearing is pretty.'
- b. ?Ku yeca-nun_i [[e_i e_j salangha-nun] namca_j]-ka naccam-ul
 that woman-Top love-Adn man-Nom nap-Acc
 ca-ess-ta.
 sleep-Pst-Dcl
 'As for that woman, the man she loved took a nap.'

Granted, let us consider how this observation can be explained in the two approaches. First, let us discuss the interpretive approach. There can be a few possible explanations, and of these, the easiest option will be to assume that all the constructions subject to the CPC are derived from MSCs. Given that MSCs are subject to the CPC, it then will follow that all the constructions derived from MSCs will be also subject to the CPC. For example, Han and Kim (2004) proposed such an account for DRCs. Another possibility is to assume that the constructions subject to the CPC all share some common property responsible for it. Both approaches have problems.

The first approach is untenable since not all the constructions subject to the CPC can be derived from MSCs. For example, J. Yoon (2007) notes that there are SORCs such as (22a) that do not have MSC counterparts. I also showed that there are TopicCs and DRCs that cannot be derived from the well-formed MSCs (J.-M. Yoon 2011, 2015).²⁰

- (25) a. [Kim kyowswu-ka [[e_i e_j swukangha-n] haksayng-tul,]-eykey
 Prof. Kim-Nom take-Adn student-Pl-to
 motwu F-lul cwu-n] swuep_j
 all F-Acc give-Adn class
 'the class_j [which_j Prof. Kim gave an F to all the students_i [who_i e_i
 took e_j]]'

²⁰ See J.-M. Yoon (2015) for more data.

- b. Ku swuep-un_i [Kim kyowswu-ka [[e_i e_j swukangha-n]
 that class-Top Prof. Kim-Nom take-Adn
 haksaying-tul_i]-eykey motwu F-lul cwu-ess-ta.
 student-Pl-to all F-Acc give-Pst-Dcl
 'As for the class, Prof. Kim gave an F to all the students who took
 it.'
- c. ?*Ku swuep-i_j Kim kyowswu-ka [e_i e_j swukangha-n]
 that class-Nom Prof. Kim-Nom take-Adn
 haksaying-tul_i]-eykey motwu F-lul cwu-ess-ta.
 student-Pl-to all F-Acc give-Pst-Dcl
 'As for that class, Prof. Kim gave an F to all the students who took
 it.' (J.-M. Yoon 2015: 388)

What the above data show is that there are well-formed DRCs and TopicCs that lack the well-formed MSC counterparts. This shows that we cannot say that all DRCs and TopicCs with a Complex NP Island Constraint violation can be derived from the MSC counterparts. To be more specific, these data show that although the CPC holds not only for MSCs but also for DRCs and some TopicsCs, it holds more strongly for the former than for the latter.²¹

Turning to the second approach, this is what J. Yoon (2007) proposes to explain the problems posed by the data like (22a). His claim is that the reason SORCs are subject to the same restriction as MSCs is because the subjects of the embedded clauses in SORCs also occupy the SpecIP position, just like MS's in MSCs. To be specific, he proposes the following explanation.

Assuming that both MSCs and the embedded clauses of SORCs are subject to the same interpretive condition that the subject should be a categorical subject in the sense of Kuroda (1972) and Ladusaw (1994), J. Yoon claims that categorical subjects occupy SpecIP whilethetic subjects occupy SpecvP/VP. He then appeals

21 SORCs seem to pattern with MSCs in this respect.

- (i) ?*Na-nun ku swuep-ul_j [Kim kyowswu-ka [[e_i e_j swukangha-n] haksaying-tul_i]-eykey
 I-Top that class-Acc Prof. Kim-Nom take-Adn student-Pl-to
 motwu F-lul cwu-ess-ta]-ko saynhgkakha-n-ta.
 all F-Acc give-Pst-Dcl-C think-Prs-Dcl
 'As for that class, I think that Prof. Kim gave an F to all the students who took it.'

to Relativized Minimality (Rizzi 1990) in order to derive the fact that only the categorical subjects can undergo SOR. To be specific, assuming that a spatio-temporal event argument occupies SpecIP when the subject is in the Spec ω P/VP position, he claims that this event argument prevents the lower subject from raising to the matrix object position. The structure in (26b) illustrates why SORCs are unacceptable when the embedded subject is a thetic subject.

- (26) a. *?Na-nun Minho-lul naccam-ul ca-ess-ta-ko
 I-Top M-Acc nap-Acc sleep-Pst-Dcl-C
 sayngkakha-n-ta.
 think-Prs-Dcl
 'I think Minho to have taken a nap.'
- b. Na-nun Minho-lul_i [_{CP} [_{IP} **ev** [_{VP} t_i naccam-ul ca-ess-ta]-ko
 sayngkakha-n-ta.]_j]

Note, however, that this approach cannot be extended to DRCs and TopicCs with a Complex NP Island Constraint violation since the movement involved in these constructions is A'-movement and thus that Relativized Minimality cannot be employed to prevent the movement of thetic subjects in Spec ω P/VP. This means that the fact that the CPC also holds for DRCs and TopicCs with a Complex NP Island Constraint violation remains unexplained.

Having seen the inadequacy of the interpretive approach in explaining why the CPC holds for various constructions in Korean in addition to MSCs, now let me turn to the processing approach. In the processing approach, the reason why diverse constructions in Korean are subject to the CPC is the same as why MSCs are subject to the CPC: they are also filler-gap constructions incurring heavy processing loads and thus are subject to processing restrictions (J.-M. Yoon 2011, 2015). Syntactically, I suggested that the common structural property shared by these constructions is the fact that they all involve a filler-gap dependency over the so-called 'island' boundary. This is obvious for DRCs, TopicCs with a Complex NP Island Constraint violation and MSCs like (7) involving a relative clause modifying the GS.

As for MSCs like (1) involving a simple NP, note that there also exists

sufficient ground to say that they involve an island configuration considering that various researchers like Kuno (1987) and Erteschik-Shir (1981) showed that movement out of simple NPs is subject to some semantic restrictions based on the data like (27)-(28) below.

- (27) a. *Whom did you see [John's picture of t]?
 b. This is the story that I haven't been able to get [Mary's version of t].
 (Kuno 1987: 13)

- (28) a. Who did John write [a book about t]?
 b. *Who did John destroy [a book about t]? (Erteschik-Shir 1981: 665)

According to Kuno, only the NP that can be a topic can undergo movement out of an NP²², and the reason (27a) is unacceptable is because *whom* cannot be a topic unlike *the story* in (27b). In the case of Erteschik-Shir, his claim is that only the dominant NPs can move out of a simple NP, according to which, the reason why (28b) is ungrammatical unlike (28a) is because *who* in this case is not a dominant NP.²³

In short, assuming that the reason various semantic and pragmatic conditions hold for a filler-gap construction is because it incurs heavy processing loads, what the previous discussion suggests to us is that movement out of not only complex NPs but also simple NPs incur heavy processing loads, which, when viewed from the syntactic perspective, means that NPs in general form an island for movement.²⁴

Finally, turning to SORCs, note that there is also ground to say that they involve movement out of an island. It is because they involve a filler-gap dependency over a finite clause boundary. Given that A-movement out of a finite clause is generally banned, we can say that a finite clause is an island for

22 Kuno provides this account in order to argue against Chomsky's (1973) account that (27a) is ruled out as a case of the Specified Subject Condition violation.

23 Dominance Condition

A constituent *c* of a sentence *S* is dominant in *S* if and only if the speaker intends to direct hearer's attention to the intension of *c*, by uttering *S*. (Erteschik-Shir 1981: 665)

24 This seems natural given that the head of an NP is a more referential element than the head of other phrase types such a VP or an AdjP.

A-movement and accordingly that filler-gap dependencies in Korean SORCs involve an island configuration.

In short, the crux of the above discussion is that the CPC is not a condition specific to MSCs but can be viewed as a condition generally holding for filler-gap constructions incurring heavy processing loads, i.e. those involving an island configuration. This proposal has a few merits.

First, a strong merit of this explanation is that it enables us to explain why the CPC matters only for certain filler-gap constructions, i.e., those involving an island configuration, not for all filler-gap constructions. For example, if we consider relative constructions like (29a-b) not involving movement out of an island, it is difficult to say that they satisfy the CPC (e.g. we cannot say that a book can be characterized by the fact that Minhø thinks that Sumi read it) but they nevertheless are acceptable.

- (29) a. [Sumi-ka e_i ilk-n] chayk_i
 S-Nom read-Adn book
 ‘the book Sumi read’
- b. [Minho-ka [Sumi-ka e_i ilk-ess-tako] sayngkakha-nun] chayk_i
 M-Nom S-Nom read-Pst-C think-Adn book
 ‘the book that Minhø thinks that Sumi read’

So the question is why the CPC matters only for certain filler-gap constructions, and the processing nature of the CPC provides an answer. It is because (29a-b) do not involve a filler-gap dependency over an island configuration. Given that what increases processing loads is having to form a filler-gap dependency over an island boundary, this means that (29a-b) will not incur heavy processing loads, unlike MSCs or DRCs, and accordingly, that they will not be subject to the CPC.

Secondly, the processing approach also enables us to explain why the CPC holds more strongly for MSCs and SORCs than for DRCs and TopicCs, the observation I made based on the data like (25a-c), which I discussed in order to show the inadequacy of deriving all well-formed DRCs and TopicCs from the MSC counterparts. When seen from the processing perspective, the reason for this should be because the former incurs heavier processing loads than the latter,

and as for the question why this is the case, I suggest that a clue can be found in the nature of movement involved in these constructions: MSCs and SORCs involve A-movement while DRCs and TopicCs involve A'-movement. It is well-known that A-movement is more local than A'-movement, and we could suppose that this syntactic locality difference between A- and A'-movement has a processing correlate. To be more specific, I suggested in J.-M. Yoon (2015) that the reason A-movement incurs heavier processing loads than A'-movement can be because A-movement, unlike A'-movement, may involve a change in GF.

4.4 Constructions subject to the CPC in other languages

Last but not least, one further, serious problem of the interpretive approach to the CPC I want to point out is that the CPC is not specific to Korean but is also observed in filler-gap constructions in other languages (J.-M. Yoon 2015).

To see this, let us examine DRCs like (30) and also (16), repeated as (31), discussed by Kluender (1992).

- (30) a. This is the paper that we really need to find someone who understands. >
 b. This is the paper that we really need to find a linguist who understands. >
 c. This is the paper that we really need to find the linguist who understands. >
 d. This is the paper that we really need to find his advisor, who understands. >
 e. This is the paper that we really need to find John, who understands.
 (Kluender 1992: 238)

- (31) a. This is a paper that there really must be someone who understands. >
 b. This is a paper that we really need to find someone who understands. >
 c. This is a paper that we really need to talk to someone who understands. (Kluender 1992: 247)

The above sentences all violate the Complex NP Island Constraint, but we observe some differences in acceptability. Descriptively, these differences can be attributed to the referential specificity of the lower head nouns in (30) and to the types of predicates in (31).

Interestingly, the above data can be also explained in terms of the CPC. It is because if we examine them in terms of the CPC, we can say that sentences (30a) and (31a) satisfy the CPC the most and that as we move away from (a), there is a gradual decrease in the degree to which the CPC is satisfied. For instance, we feel that the higher head noun in (31), i.e., *a paper*, can be better characterized by the fact that there must be someone who understands it than by the fact that we really need to talk to someone who understands it. This means that the CPC also holds for sentences like (30)-(31) in English, which violate the Complex NP Island Constraint.

Granted, now let us discuss how this observation can be handled in each approach. As for the interpretive approach, it is not difficult to see that the fact that the CPC also holds for some filler-gap constructions in other languages such as English cannot be easily explained in it. This is because the CPC, in the interpretive approach, is directly tied to the special interpretive properties of the subjects in SpecIP. Given that the derivation of the above DRCs in English does not involve SpecIP in any way and more importantly that no special interpretive properties can be attached to SpecIP in English, unlike in Korean,²⁵ it is not explained why the CPC should hold for sentences like (30)-(31) violating the Complex NP Island Constraint in English. In short, the interpretive approach fails to explain why the CPC holds not only for MSCs and some filler-gap constructions in Korean but also for some filler-gap constructions in other languages like English.

This, however, can be easily explained in the processing approach. In the processing approach, the CPC is a processing restriction for filler-gap constructions incurring heavy processing loads. This means that the CPC need not be confined to Korean or to any specific construction types. Constructions that are subject to the CPC in English are those like (30)-(31) involving a filler-gap dependency over an island boundary, just as in Korean, and we can

25 It is because Nom Case can be assigned only to the SpecIP position and thus all subjects must appear in SpecIP in English, unlike in Korean.

say that the reason they are subject to the CPC is the same as the reason the CPC holds for MSCs in Korean: it is because they are filler-gap constructions incurring heavy processing loads and thus will be subject to various processing restrictions.

To summarize, in this section, I have compared the interpretive approach and the processing approach to the CPC and provided arguments for the latter. In short, the crux of the processing approach is that the CPC is not a unique condition specific to MSCs in Korean but a more general condition holding for filler-gap constructions incurring heavy processing loads in all languages.

5. Implications for the syntax of MSCs and nature of Island Constraints

In the previous sections, I have shown that the CPC cannot be attributed to the special interpretive properties of SpecIP in Korean but that it can be better explained as the result of the interplay of various processing restrictions holding for filler-gap constructions incurring heavy processing loads. In this section, I will discuss the implications this claim has to the syntax of MSCs and more generally, to the analysis of constructions violating the Island Constraints.

So far, I have been referring to MSCs simply as filler-gap constructions and indicated null elements in them as *e*, without committing myself to their exact syntactic structures. Now let me consider how MSCs can be analyzed syntactically. Given that filler-gap constructions in Chomskyan syntax are generally handled in terms of movement, the first possibility that presents itself is that the derivation of MSCs involves movement and that the gaps in MSCs are traces left by movement. If so, MSCs (1) and (7a) will have the following syntactic structures, respectively.

- (32) a. *Minho-ka_i [t_i apeci]-ka pwuca-i-si-ta.*
 b. *Ku a_i-ka_i [[t_i t_j ip-ko iss-nun] os_j]-i yeppu-ta.*

One obvious problem for the movement approach, however, is that the movement involved in MSCs violates various locality constraints such as the Complex NP Island Constraint and the Left Branch Condition (Ross 1986).

This problem has led many researchers to take the base-generation approach to MSCs. In this approach, the MS is base-generated in SpecIP and binds a *pro* in the complex predicate formed by the rest of the sentence (J. Yoon 1987, 2004; Han and Kim 2005).

- (33) a. *Minho-ka_i [pro_i apeci]-ka pwuca-i-si-ta.*
 b. *Ku ai-ka_i [[pro_i t_j ip-ko iss-nun] os_j]-i yeppu-ta.*

This proposal is possible since Korean is an extreme *pro* drop language, where *pro* is freely available.

Note, however, that the kinds of facts observed in this paper, i.e., the facts that the CPC is not a condition specific to MSCs but also holds for other constructions involving movement chains in Korean and other languages, poses a problem to the base-generation approach. Base-generated *pro* chains, unlike movement chains, are known to be not subject to any locality restrictions. So questions arise concerning why *pro* chains in Korean are subject to the same kind of restrictions known to hold for movement chains. This state of affairs suggests that simply positing a base-generated *pro* chain cannot be a solution for the problem posed by the absence of island effects in MSCs and other constructions in Korean.

In addition, note that the base-generation approach cannot explain the fact that Island Constraint violations are also possible in languages like English, which lack *pro*. If Island Constraint violations are possible in a language due to the availability of *pro* in it, we expect that Island Constraint violations will not be possible in languages which lack *pro*. Given that this is not the case, the base-generation approach for the absence of island effects in Korean loses much of its ground.

One solution for this problem is to assume that MSCs as well as various constructions violating Island Constraints in Korean also involve movement and to take the processing approach to island effects, as I proposed in my previous papers (J.-M. Yoon 2011, 2015).²⁶ This uniform movement approach, however,

²⁶ Another possibility we could think of is to assume the base-generation approach and deal with the problems raised by it. To be specific, assuming that filler-gap constructions in languages like Korean where *pro* is available involve base-generated *pro* chains unlike those in other languages

faces the question why Island Constraint violations seem easier in Korean-type languages, where *pro* is available, than in others which lack *pro*. Although I will not discuss this question here, due to the limitations of this paper, it appears that answers for this question can be found in various syntactic and processing differences among languages. Interested readers are referred to J.-M. Yoon (2015).

6. Conclusion

In this paper, I have discussed the two different approaches to the CPC, namely, the interpretive approach of J. Yoon (2004, 2007) and the processing approach I proposed (J.-M. Yoon 2011, 2015). Although both proposals claim that the CPC is the ultimate condition for MSCs, with various other conditions being subsumed under it, they differ with respect to the nature of the CPC. In the former, the CPC holds mainly due to the special interpretive nature of SpecIP in Korean, while in the latter, the CPC holds due to processing reasons, to be more specific, since MSCs involve filler-gap dependencies over an island boundary and thus incur heavy processing loads. By comparing the two proposals in detail, I argued for the processing approach.

To summarize, the crux of my arguments is as follows: (i) the processing approach can better explain why the kinds of sub-restrictions observed to figure in the CPC hold for MSCs; (ii) the processing approach can better explain the fact that whether or not a MSC satisfies the CPC is cumulatively determined by the interaction of the sub-restrictions; (iii) the processing approach can better explain the fact that the CPC holds not just for MSCs but also for various other construction types in Korean such as SORCs, DRCs, and TopicCs with a Complex NP Island Constraint violation; (iv) finally, the processing approach can better explain the fact that the CPC holds not just for filler-gap constructions in

like English where *pro* is not available, we could say that all filler-gap dependencies, whether they involve traces or *pro*, are subject to the same processing restriction, i.e., the CPC. This approach could explain why the CPC holds for both the *pro* chains and the movement chains. Note, however, that if this is the case, much of the burden of explaining the differences in the locality of different filler-gap construction types will fall on processing, not on syntax. In other words, this approach also cannot escape the conclusion that various locality conditions for filler-gap constructions generally known to be syntactic constraints have a processing nature.

Korean but also for some filler-gap constructions in languages like English, which lack *pro*.

What has been also discussed is the syntactic implications of the proposal in this paper. The absence of island effects in various constructions in Korean has often been attributed to the existence of MSCs and ultimately, to the availability of *pro* chains in Korean. This approach, however, faces a problem given (i) that not all constructions in Korean violating the Island Constraints can be derived from the MSC counterparts; (ii) that Island Constraint violations are also possible in languages where MSCs and *pro* are not available; and (iii) crucially that they are also subject to the restrictions similar to those holding for MSCs. Based on these observations, I suggested that simply positing a base-generated *pro* chain for MSCs cannot be a solution for the absence of syntactic island effects in many construction types in Korean.

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