

# Asymmetries in Scrambling and Distinctness of Copies

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## Abstract

This paper is an investigation of LF-copies created by scrambling in the context of FNQ-constructions. It demonstrates that movement leaves a copy at LF only when it targets a position within the next search space; it does not leave an LF copy if movement takes place too close within a single domain of search space. By characterizing this in terms of “Distinctness of Copies,” this paper provides a principled account to all structural variations that have posed substantial problems in previous approaches.

## 1 Introduction

It has been widely noted that the extraction of different arguments can be subject to different restrictions. One such case involves the distribution of floating numeral quantifiers (FNQs) in Japanese and Korean.<sup>1</sup> In these languages, extraction of objects licenses an associated FNQ, while that of subjects does not (Kuroda, 1980; Saito, 1985; Ko, 2007; Miyagawa and Arikawa, 2007; Miyagawa 2013; J. Kim, 2013, among many others). Although this understanding about the subject-object asymmetry is well-established in the literature, it is not always easy to reach a conclusion about the grammaticality of the sentences that contain subject FNQs. We also find that the Locality approach (Saito, 1985; Miyagawa, 1989; 2010; Miyagawa and Arikawa, 2007, etc.), the most compelling account for this exciting but bewildering phenomenon, is not entirely acceptable because of its shortcomings in terms of either empirical coverage or the explanatory power essential for theories in modern lin-

<sup>1</sup> Sportiche’s (1988) proposal for a theory of floating quantifiers relies on two independently motivated assumptions: (i) a quantifier and its associate NP are generated under a single constituent, and (ii) the NP moves up for a number of reasons while stranding the quantifier in its base-generated position. I hold these assumptions throughout this paper.

guistic research.

In this paper, we lay down two minimalist assumptions and demonstrate that simply by combining these, all the lingering problems germane to the previous approaches (including the Locality) can be eliminated. Additionally, a variety of puzzles that arise in scrambling contexts all fall out nicely. The two hypotheses include Chomsky’s (2000; 2001; 2008) PIC (Phase Impenetrability Condition) and a novel proposal of DC (Distinctness of Copies), which is an elaboration on Richards’s (2000; 2010) principle of Distinctness. Insofar as the current analysis is sustained, it will then supply empirical evidence in support of these theoretical assumptions in the minimalist program, while further clarifying some residual problems.

The structure of the paper is as follows. In section 2, while reviewing the Locality approach to FNQs, we tease out an important fact that structural variations of FNQ-constructions are contingent on the availability of LF copies created by scrambling. In section 3 we lay down our proposals, and in section 4 we demonstrate that the DC, in conjunction with the PIC, provide a principled and unitary account to all the structural variations that have posed substantial problems in previous approaches. Section 5 is a conclusion of the paper, with a discussion of some predictions that follow from the current analysis.

## 2 Locality and Problems

Since it was first observed by Haig (1980) and Kuroda (1980), the subject-object asymmetry of FNQs, shown in (1) in Japanese, has been described by the term “Locality,” defined in terms of mutual c-command between an NP (or an NP trace) and its associated numeral quantifier.<sup>2</sup>

<sup>2</sup> Locality:

- a. The NQ and its associated NP observe strict locality (Saito, 1985).
- b. The NQ or its trace and the NP or its trace must mutually c-command each other (Miyagawa, 1989).

- (1) a. \*Gakusei-ga sake-o san-nin nonda.  
 student-Nom sake-Acc 3-CL<sub>subj</sub> drank  
 ‘Three students drank sake.’  
 b. Sake-o gakusei-ga san-bon nonda.  
 Sake-Acc student-Nom 3-CL<sub>obj</sub> drank  
 ‘Students drank three bottles of sake.’

In the era of Government and Binding, it was assumed that a subject cannot scramble, as indicated by Saito’s (1985) “ban on subject scrambling,” and is merged directly in its surface position. Since the subject does not involve movement, it has no *v*P-internal trace, resulting in violation of the Locality requirement in sentence (1a). In contrast, an object is assumed to scramble freely and leaves a trace. Consequently, the trace and its associated NQ in VP satisfy the required constraint, leading to the grammaticality of sentence (1b). In this view, the subject-object asymmetry of FNQs in scrambling contexts comes as a consequence of the trace visibility in a position next to the NQs. (2) below depicts this account under the Locality approach.

- (2) a. \*Gakusei-ga sake-o [NO TRACE san-nin] nonda.  
 b. Sake-o gakusei-ga [TRACE san-bon] nonda.

As a reader might already have observed, this account can hardly hold in its original form in the minimalist program, one major finding of which is that the subject is derived from its *v*P-internal position (Kitagawa, 1986; Sportiche, 1988; Kuroda, 1988; Koopman and Sportiche, 1991, etc.). Under the so-called VP-Internal Subject Hypothesis (VPISH), (2a) could have the following structure, in which the subject has scrambled over the preposed object from its lower base position (Bobaljik, 2003:115, see also Bošković, 2004).

- (3) Gakusei-ga sake-o [<sub>vP</sub> t<sub>subj</sub> san-nin [<sub>VP</sub> t<sub>obj</sub> nonda]]

This structure, once its validity is proven, will significantly weaken the Locality approach since it obliterates the disparate patterns of the traces between subject and object. However, one might argue, in full compliance with Saito’s original intuition of the “ban on subject scrambling,” that the “double-scrambling structure” (3) is less economic than (2a) since it contains more movement steps to arrive at the same word order. Therefore, from the economy perspective, the Locality account still holds that (2a) is an optimal structure and that there is no licensing trace for the stranded subject NQ. If we strictly adhere to this view, the prediction is clear: there should be no stranded quantifier associated with the subject.

Unfortunately, however, this prediction is too general, since in the literature we find a number of counterexamples where subject NQs occur precisely in this structural format, yet maintain grammatical integrity.<sup>3</sup> See Kuno, 1973; Ishii, 1998; Takami, 1998; Gunji and Hasida, 1998; Kuno and Takami, 2003; Nishigauchi and Ishii, 2003; Yoshimoto et al., 2006; Miyagawa and Arikawa, 2007; Miyagawa 2010; 2013 for Japanese examples illustrating this fact; see also Lee, 2003; S. Kim, 2004; Moon, 2007; Y. Kim, 2008; J. Kim, 2013, and Son, 2015 for the same fact in Korean.

A further complication arises with the Locality analysis. Miyagawa (2001; 2003; 2005) has argued that Japanese does exhibit EPP effects, and a scope contrast as described below comes as a consequence of EPP-movement by either the subject or the object to a position higher than negation.

- (4) a. Zen’in-ga sono tesuto-o uke-nakat-ta.  
 all-Nom that test-Acc take-Neg-Past  
 ‘All did not take that test.’  
 \*not > all, all > not  
 b. Sono tesuto-o zen’in-ga t uke-nakat-ta  
 that test-Acc all-Nom take-Neg-Past  
 ‘That test, all did not take.’  
 not > all, (all > not)

On Miyagawa’s account, T bears a strong EPP-feature in Japanese, and hence it requires movement of some NP to [Spec,TP] in overt syntax; in (4a), the Spec of TP is oc-

<sup>3</sup> The examples of (i) and (ii) below are representative of the nonstandard paradigms (i.e. exceptions to standard paradigms) in Japanese and Korean, respectively.

- (i) a. ?Gakusei-ga sake-o [PAUSE] san-nin nonda.  
 students-Nom sake-Acc 3-CL<sub>subj</sub> drank  
 ‘Three students drank beer.’ (M&A:651)  
 b. Gakusei-ga watasi-no hon-o futa-ri-sika kaw-ana-  
 student-Nom my-Gen book-Acc 2-CL<sub>subj</sub>-only buy-Neg-  
 katta.  
 Past  
 ‘Only two students bought my book.’  
 (Takami, 1998:92)
- (ii) a. Marathon juja-deul-i kyeolseungjeum-ul  
 Marathon runner-PL-Nom finishing line-Loc  
 taseos-myeong thongkwahaessta.  
 5-CL<sub>subj</sub> pass-Pst  
 ‘Five marathon runners have passed the finishing line.’  
 b. Haksaeng-tul-i sukje-lul jikeumkkaji  
 student-PL-Nom homework-Acc so far  
 se-myeong jechulhaesseo  
 3-CL<sub>subj</sub> submitted  
 ‘Three students submitted homework so far.’  
 (Son, 2015: 232-239)

occupied by the subject, while in (4b) it may be occupied by either the subject or the scrambled object. Crucially, in (4b), the subject can remain *in-situ* in the specifier position of  $vP$ , where it may be interpreted within the scope of negation. If the subject could be externally merged in [Spec, $vP$ ] as in (4b), and if we imagine that the higher subject in (4a) is indeed the one derived from the lower  $vP$ -internal position through scrambling (in compliance with the VPISH),<sup>4</sup> the double-scrambling structure of (3) cannot simply be banished by economy, because the movement operation of the subject is a bona fide fact. This consideration, then, brings us back to the initial quest regarding the subject-object asymmetry in (1) since in this view both NPs are permitted to scramble to TP and leave traces alike.

This state of affairs seems to indicate that the Locality account is now obsolete. Alternatively, it could mean that both structures (2a) and (3) coexist in Japanese and Korean grammar, in a way suggested by Miyagawa and Arikawa (2007) (see also Miyagawa, 2010), so each may represent the standard versus nonstandard case (i.e. exceptions to the standard paradigm) of the FNQ-constructions. Although Miyagawa and Arikawa (2007) (M&A, hereafter) have merely suggested this (based on phonological experiments), we will show that they are indeed correct. We will support them by providing a syntactic ground concerning the varying structures of (2a) and (3) for subject scrambling and (2b) for object scrambling. More specifically, we claim that a subject undergoes scrambling by either (2a) or (3), yielding a disparate LF structure. The subject lacks an LF trace (or copy, in minimalist terms) in the former, but leaves it in the latter derivation. The object, on the other hand, always leaves an LF trace after scrambling, as illustrated by (2b). We claim that these varia-

<sup>4</sup> Based on such examples as the following, Ko (2007:5) claims that subject scrambling is indeed possible in Korean.

- (i) a. John-*i* [<sub>CP</sub> na-nun [<sub>CP</sub> *t*<sub>i</sub> Mary-lul mannassta-ko] sayngkakhanta]]  
 J-Nom I-Top M-ACC met-C think  
 ‘John, I think that t met Mary.’
- b. Haksayng-tul-*i* pwunmyenghi *t*<sub>i</sub> sey-myeng maykcwu-lul  
 student-PL-Nom evidently 3-CL<sub>subj</sub> beer-Acc  
 masiessta  
 drank  
 ‘Evidently, three students drank beer.’

In (ia) above, an embedded subject has scrambled over a matrix subject, and in (ib) it is even separated from its NQ by a sentential adverb. See Kurata, 1991; Lee, 1993 and Sohn, 1995 for more examples of this sort in Korean and Japanese.

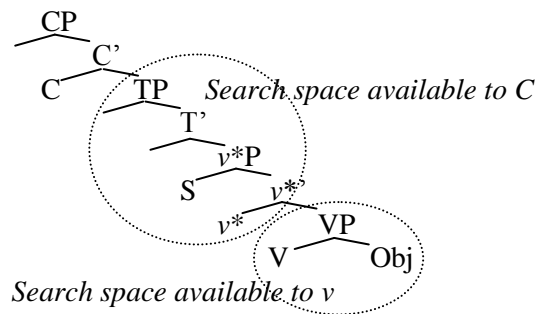
tions of LF copies follow from two minimalist assumptions that we lay down in section 3.

### 3 Proposals

An important development of the past decade is the hypothesis that syntactic operations are not optional but triggered (i.e. the Last Resort principle). The most influential work along this line is Chomsky’s (1993, et seq.) proposal that uninterpretable features play a central role in the triggering process under the Phase Impenetrability Condition (PIC). In this system, only phase heads (C and transitive  $v^*$ ) bear uninterpretable features, and consequently, phase-internal elements are forced to move only through phase edges. The phase heads also mark points in the derivation at which the complements of the phase heads are transmitted from narrow syntax to the interfaces, PF and LF. Once the selected structure undergoes Transfer to the interface components, its phonological and semantic information is no longer accessible for further operations. Chomsky’s (2000) formulation of the PIC is given in (5); the resultant patterns of search spaces are depicted in (6).

- (5) Phase Impenetrability Condition (Chomsky, 2000:108)  
 In phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ ; only H and its edges are accessible to such operations.

- (6) Search spaces of phase heads



As shown in (6), the search space of the phase head  $v^*$  is VP that contains V and the object. On the other hand, the higher phase C has Spec-T, T, Spec- $v^*$ , and  $v^*$  in its search space, to the exclusion of VP. Since the PIC in (5) imposes VP-Transfer as soon as  $v^*P$  is complete, the probe C cannot look inside VP. In other words, the VP and

any elements contained therein are no longer accessible to the phase head C (and the head T, which becomes a probe due to C). The search spaces sketched in (6) will have a direct impact on the distribution of FNQs in Japanese and Korean, as will become clear shortly.

Along with this, based on Richards's (2000; 2010) principle of Distinctness, we elaborate another constraint that holds presumably in narrow syntax, i.e. before a derivation reaches PF- and LF-interfaces. On PF side, there is a general tendency to reduce or eliminate phonological "redundancy" within a certain minimal domain, similar to the effects of the OCP in phonology. Analogous phenomena are also found in narrow syntax, among which Richards's principle of Distinctness on linearization is particularly instructive to us in its scope and effects.<sup>5</sup> The Distinctness principle states that two nodes that are too similar, e.g., of the same category, cannot be in the same phase domain.

(7) Distinctness Principle (Richards, 2010)

If a linearization statement  $\langle \alpha, \alpha \rangle$  is generated, the derivation crashes.

Although Richards's (2000) principle of this only makes use of node labels and does not refer to particular information of lexical items on terminals, we may further assume that linear ordering is indeed sensitive to the phonetic forms on terminals, not just to their categorical nodes. One compelling piece of evidence for this direction comes from Grohmann's (2003) Condition on Domain Exclusivity (CDE) in (8), which uses phonetic information of the syntactic objects on terminals, while taking precisely the same effect as Distinctness.

(8) Condition on Domain Exclusivity (Grohmann, 2003:272)

An object O in a phrase marker must have an exclusive occurrence in each Prolific Domain  $\Pi\Delta$ , unless duplicity yields a drastic effect on the output; that is, a different realization of O in that  $\Pi\Delta$  at PF.

The CDE in (8) permits only one instance of the same phonetic expression in a particular syntactic domain, namely, Prolific Domain (PD) in his terms, to the effect that there would be no two copies of phonetically identical form within a PD. This explains why such an example as (9a) below, in distinction from (9c), is ungrammatical. For convergence, one instance of the copies (i.e. the lower one) must be spelled out in a distinct phonetic form, as in (9c).

(9) a. \*John likes John.

b. [<sub>VP</sub> John v [<sub>VP</sub> likes John]]

c. John likes himself.

(Grohmann, 2003:275)

Importantly, note at this point that Grohmann's CDE is reducible to Distinctness once we make the latter applicable to the set of phonetically identical copies in the course of syntactic computations. In this view, multiple occurrences of the same phonetic form cannot be linearized in syntax because doing so creates an indistinguishable set within a relevant domain. Following this line of reasoning and taking Chomsky's search spaces in (6) to be the relevant domain where Distinctness applies, we propose the following generalization.

(10) Distinctness of Copies (DC)

Identical copies cannot appear within a search space (defined under the PIC).

The essence of the Distinctness of Copies (DC) is to ban phonetically identical copies from occurring within a single search space. In Grohmann's system, this condition is met by the operation of Copy Spell-Out (within a PD), i.e., by spelling out a lower copy in a distinct phonetic form. However, crucially, there is another way of satisfying this condition: By simply "deleting" one party of the two-membered chain. We contend that this is exactly what happens in the course of syntactic derivations involving subject- and object scrambling in the context of FNQ-constructions. When movement takes place within a search space, a copy in the tail—as is usual in the process of copy-deletion (Nunes, 2001)—is wiped out in deference to the DC. We call this operation in (11) Copy Elimination. Similar to Grohmann's Copy Spell-Out, this operation is a Last Resort strategy to fulfill the re-

<sup>5</sup> For more work on "syntactic OCP," see Mohan (1994), Yip (1998), Anttila and Fong (2001), Erlewine (2013), and the references cited therein.

quirement imposed by the DC, by turning a two-membered chain into a single-membered chain.

(11) Copy Elimination

If a movement chain  $\langle \alpha, \alpha \rangle$  is created within a search space, eliminate the lower copy.

Since we assume that the Copy Elimination in (11) holds in narrow syntax before a derivation reaches the PF- and LF-interfaces, as is in Richards’s Distinctness and Grohmann’s CDE, the consequence of the operation is formidable, especially in its effects on LF.<sup>6</sup> The subsequent section is a demonstration of how the proposed principle of the DC, in conjunction with Chomsky’s PIC, correctly predicts the bewildering patterns of the copies noted in section 2; the subject-object asymmetry in (2a) versus (2b), and the standard-nonstandard variations of subject scrambling in (2a) versus (3).

#### 4 Analyses

By adhering to the essence of the Locality approach, we assume in this article that an NQ must be in a strict local relation with its host NP for interpretation. However, deviating from major works in this approach (Saito, 1989; Miyagawa, 1989; 2001; 2013 and M&A), we adopt the minimalist assumption of the VPISH (Kitagawa, 1986; Sportiche, 1988; Kuroda, 1988; Koopman and Sportiche, 1991, etc.). That is, a subject is externally merged in the Spec of  $\nu P$  regardless of the standard and nonstandard variations of subject scrambling. This implies that M&A’s (2a) and (3), which represent the structure of the standard and nonstandard paradigms, respectively, are indistinctive as the subject is commonly originated from the  $\nu P$ -internal position. They share an identical structure in (12).

(12) Gakusei-ga sake-o [ $\nu P$  t<sub>subj</sub> san-nin [ $\nu P$  t<sub>obj</sub> nonda]]

Given the common structure of (12) for both paradigms, the judgmental variations between (2a) and (3) now turn out to be contingent on the avail-

<sup>6</sup> Since Richards’s (2010) Distinctness is sensitive to the distribution of strong phase boundaries, it is obviously not a pure PF-operation. In the same vein, since Grohmann’s (2003) CDE makes use of Prolific Domains within the sphere of narrow syntax, it also cannot be viewed purely as a PF-operation.

ability of the subject traces *in-situ*. That is, if the subject trace in the [ $\text{Spec}, \nu P$ ] is somehow made “invisible” and hence the structure looks like the standard paradigm of (2a), the stranded subject NQ will be left uninterpretable since no licensing DP is available next to it. On the other hand, if the *in-situ* subject is “visible” and available for interpretation of the adjoining  $\text{NQ}_{\text{subj}}$ , the sentence improves its grammaticality.<sup>7</sup> This constitutes a nonstandard case of subject scrambling, as depicted in (3). On this reasoning, an emerging question is how to explain the availability of the traces that have a direct impact on the interpretability of the FNQs. Chomsky’s PIC and our novel proposal of the DC provide an adequate answer to this question.

First, consider (13), a structure of the standard paradigm built on this view. [From now on, we use “copy” in place of “trace” in favor of minimalist terms.]

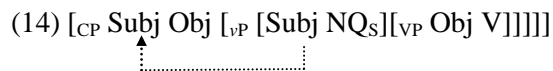
(13) [ $\text{TP}$  Subj Obj [ $\nu P$  [Subj  $\text{NQ}_S$ ][ $\nu P$  Obj V]]]]

In the above, the subject raises from its  $\Theta$ -position in [ $\text{Spec}, \nu P$ ] to [ $\text{Spec}, \text{TP}$ ], driven by the EPP-feature on T (Miyagawa, 2001; 2003; 2005). Crucially, the two copies of the movement chain,  $\langle \text{Spec-T}, \text{Spec-}\nu \rangle$ , are both contained in the search space of C that covers Spec-T, T, Spec- $\nu$ , and  $\nu$  (see (6)). Since this chain does not comply to the principle of the DC in (10), the lower copy in [ $\text{Spec}, \nu P$ ] undergoes Copy Elimination. The stranded subject NQ then fails to meet the Locality requirement at LF, causing a problem with its interpretation.

Although the standard derivation (13) crashes for the aforementioned reason, there is an alternative way of deriving the surface word order of (12). If we take Chomskian style A’-movement that raises an *in-situ* subject to [ $\text{Spec}, \text{CP}$ ] in one fell swoop, as depicted in (14) below (Chomsky, 2001; 2008; see also Pesetsky and Torrego, 2001 and Erlewine, 2013), an interesting result emerges.<sup>8</sup>

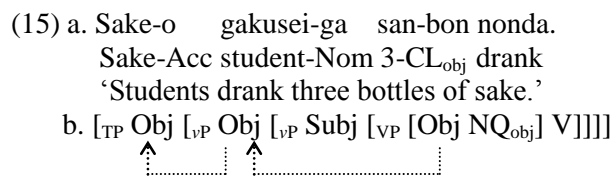
<sup>7</sup> Nonstandard examples are less than perfect in general. They become fully acceptable only with the help of a peculiar sort of prosody around the sentence. See M&A and Son (2015), which independently contend that these peculiar prosodies are what accounts for the degradedness of the nonstandard cases.

<sup>8</sup> Pesetsky and Torrego (2001) have claimed that the subject may check the EPP on C via a direct movement to [ $\text{Spec}, \text{CP}$ ]. On the other hand, Erlewine (2013), based on the Agent Focus



In the A'-movement configuration above, the displacement chain of the subject, <Spec-C, Spec-v>, obeys the DC as the copy in the head stays outside the search space of C. As a result, the *in-situ* subject copy passes down to the interfaces and supports its adjoining NQ at LF.<sup>9</sup> This explains how an otherwise ungrammatical sentence is rendered “saved” through the nonstandard derivations of subject scrambling.

Let us now proceed to see how the current proposal successfully captures the conventional subject-object asymmetry in scrambling. Recall that an object NQ can be freely separated from its associated NP by a subject or any other elements in a sentence. This is in contrast with the pattern of a subject NQ that only allows such separation optionally, resulting in varying judgments as we have seen. From the perspective developed in this article, the source for this asymmetry is surprisingly simple. Consider the following example of object scrambling, repeated from (1b), with its derivation in (15b).



As depicted in (15b), the object raises to [Spec,TP] in a successive cyclic fashion; it first moves to the outer edge of vP and further scrambles to the Spec of TP for the purpose of the EPP. Of these, the first step of displacement, <Spec-v, Complement of V>, satisfies the DC as the copy in the position of tail is the only expression of the object in the search space of v\*, namely, VP (see (6)). Consequently, the *in-situ* copy transfers and becomes visible at LF, licensing its adjoining NQ at the interpreta-

phenomenon in the language of Kachickel, argues that the EPP is not required in this language. As such, the subject is allowed to move to [Spec,CP] without stopping over in the specifier position of TP.

<sup>9</sup> A warning is in order here. Although the subject chain in (14) is consistent with the DC and leaves an interpretable copy at LF, it does not necessarily mean that the copy is visible at PF. This is because the PF-interface has an independent process of copy-deletion, in a way suggested by Nunes (2001) and Corver and Nunes (2007).

tional level. Note that the second step of movement, which has the head in the [Spec,TP] and the tail in the [Spec,vP], contravenes with the DC in the search space of C. However, the concomitant deletion operation in the tail exerts no impact on the interpretability of the object NQ since it has already undergone Transfer and becomes interpretable by the help of the string-adjacent object copy *in-situ*. The possible separation of the object NQ from its host NP is thus accounted for.

In fact, since the object merges with V and undergoes Transfer independently of its higher copy upon VP-Transfer, it is invariably predicted to be visible at LF. As Abels (2003) has correctly stated by his Anti-Locality, VP-internal movement, e.g. from the complement position to the specifier position of VP, is prevented. As such, whether it moves to [Spec,TP] or [Spec,CP] via A- or A'-movement, it always leaves an interpretable copy at LF. This is in contrast with the subject, the chain link of which may or may not leave an LF copy; it leaves a copy if it targets an A-position in [Spec,TP], but not if it moves directly to [Spec,CP] via topicalization. This provides a source of the asymmetry between the subject and object with regard to the interpretability of the FNQs associated with them.

## 5 Conclusion

In this paper, we have seen that the operation of the DC is quintessential in determining the availability of the copies at LF in a lower position of a two-membered chain. Subject scrambling from [Spec,vP] to [Spec,TP] lacks an interpretable copy in the tail position, while the same movement to [Spec,CP] does leave such a copy. On the other hand, the object always leaves a copy at LF after scrambling. These variations turn out to be a result of interactive operations of the DC with the PIC. Since the DC demands an exclusive copy of the same expression in a search space of the PIC, movement leaves a copy at LF only when it targets a position within the next search space; it does not leave an LF copy if movement takes place too close within a single domain of search space. We may refer to this dependency as the “Semantic Copy Effect.”

### (16) The Semantic Copy Effect

Movement leaves a copy at LF for semantic interpretations only when it targets a position

within the next search space (although the copy may be deleted on the PF side).

Overall, the current analysis makes the following predictions:

(17) Predictions:

- A. A- chain of the subject, <Spec-T, Spec-v>, lacks a copy *in-situ* at LF.<sup>10</sup>
- B. A'- chain of the subject, <Spec-C, Spec-v>, leaves a copy *in-situ* at LF
- C. The object always leaves a copy at LF, whether it undergoes A- or A'-movement.
- D. An unaccusative/passive subject will pattern like the object and leave a copy *in-situ*, while an unergative subject may or may not leave a copy at LF.<sup>11</sup>
- E. An A'-moved subject (i.e. nonstandard paradigms) will have a topic interpretation.<sup>12</sup>

<sup>10</sup> This prediction has a direct bearing on Chomsky's (1995) claim of "No A-movement traces (or copies)." This article shows that Chomsky does not provide the whole picture. It is not that the copies never existed, but that previously manifesting copies were deleted by the operation of Copy Elimination. The proposal of the DC explains why in the case of objects with A-movement, copies still remain at LF, as stated in (17C). Further investigation is needed to see if this remains consistent in other languages.

<sup>11</sup> The following examples demonstrate that this prediction holds true in Korean (data adapted from Ko, 2007:68). See Miyagawa, 1989; Mihara, 1998; Kuno and Takami, 2003; M&A; S. Kim, 2004; and J. Kim, 2013 for more examples of this kind in Korean and Japanese.

- (i) a. Koyangi-ka pyeong-ulo sey-mali juk-ess-ta (unaccusative)  
cat-Nom disease-by 3-CL<sub>animal</sub> die-Past-Dec  
'Three cats died from diseases.'
- b. Eoje, catongcha-ka koyhan-eykey two-tay pusu-eoji-ess-  
yesterday, car-Nom robber-Dat 2-CL<sub>car</sub> break-Pass-  
ta (passive)  
Past-Dec  
'Yesterday, two cars were broken into by a robber.'
- c. ?\*Haksayng-tul-i kaki-tul ton-ulo two-myeong cenhwaha-  
student-PL-Nom self-PL money-by 2-CL telephone-  
yess-ta (unergative)  
Past-Dec  
'Two students telephoned with their own money.'

On the other hand, for the external merge position of the unaccusative/passive subject (i.e. a complement position of V), in distinction from that of the unergative subject, see Perlmutter, 1978; Belletti and Rizzi, 1981; Burzio, 1986; Miyagawa, 1989; Hale and Keyser, 1993, and Chomsky, 1995.

<sup>12</sup> Lee (2003; 2006), S. Kim (2004), J. Kim (2013) and Son (2015) have independently claimed that the so-called non-standard examples are motivated by the information structure, and carry a discourse/pragmatic meaning of a topic-comment

Some of these predictions have been proved empirically in natural languages; some others remain yet unexplored. Although we have drawn these predictions through the study of scrambling phenomenon in the context of FNQ-constructions in Japanese and Korean, we wish to see their validity in other domains of movement and in other languages as well. With much anticipation for research towards this direction, we conclude this paper.

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