

# The nonstandard paradigm of FNQ-constructions as topic movement\*

Gwangrak Son  
(Kyungpook National University)

**Son, Gwangrak. 2015. The Nonstandard paradigm of FNQ-constructions as topic movement.** *Linguistic Research* 32(1), 225-252. This paper claims that the nonstandard paradigm of FNQ-constructions (Miyagawa and Arikawa 2007, Miyagawa 2013) is merely a subcase of a more general type of movement, viz. topic movement of the subject to Spec,CP that leaves a trace (or copy) in support of its stranded NQ. Since topic movement, in general, leaves a trace in its external merger position (unlike A-movement), this analysis desirably furnishes a simple and natural account for the vexing problems that otherwise arise under the previous Locality approaches. Evidence for this view involves a particular pragmatic/informational structure and a phonological pattern that the nonstandard examples invariably maintain to convey the meaning of a topic-focus relation. (Kyungpook National University)

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## 1. Introduction

It has been widely noted that extraction of different arguments can be subjected to different restrictions. One such case involves the distribution of floating numeral quantifiers (FNQs) in Korean and Japanese. In these languages, extraction of objects licenses an associated FNQ, while that of subjects does not (Haig 1980, Kuroda 1980, Saito 1985, Miyagawa 1989, 2001, 2013, Ko 2007, Miyagawa and Arikawa 2007, Kim 2013). Although this much of the subject-object asymmetry is well

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established in the literature, we find that it is not always easy to draw a clear-cut judgment regarding the grammaticality of those sentences that contain subject FNQs. This is because a substantial number of counter-examples exist to the standard paradigm of the subject FNQs. In these counter-examples, the subject is extracted from its vP-internal position and separated from its associated quantifier, yet the sentence maintains its grammatical integrity (Kuno 1973, Ishii 1998, Takami 1998, Gunji and Hasida 1998, Kuno and Takami 2003, Nishigauchi and Ishii 2003, Miyagawa and Arikawa 2007, Kim 2008, Moon 2007, Miyagawa 2010, 2013).

To explain the apparent problem in this disparate structure, Miyagawa and Arikawa (2007) (M&A, hereafter) recently proposed that these so-called nonstandard (i.e., exceptional) sentences differ in prosody from the standard paradigm. In particular, they claim that the subject DPs in the former construction are externally merged in Spec,vP and undergo EPP-movement to Spec,TP, while those in the latter construction are directly merged in Spec,TP in their surface positions. The subject FNQs, then, are only legitimate for the nonstandard paradigm, as they establish a strict locality with their adjoining subject traces.<sup>1</sup> In his later work, Miyagawa (2013) presents a further argument in this direction, claiming that the improvement of the nonstandard paradigms is due to the "visible" status of the subject copy in its base position in a particular aspectual context, namely, under the telic aspect. Although inspiring, both of these approaches embed a conceptual problem; that is, why the

<sup>1</sup> In the era of GB, it was assumed that the subject is unable to scramble and is merged directly in its surface position (cf. Saito's (1985) "ban on subject scrambling"). This provides the traditional account of why subject NQs are impermissible in split contexts; they fail to meet the Locality requirement, stated in (i):

(i) Locality requirement

The NQ and its associated NP observe strict locality.

However, many scholars (Kurata 1991, Lee 1993, Sohn 1995, Bobaljik 2003, Bošović 2004, Ko 2007, etc.) have reported that subject scrambling is indeed possible, as illustrated by the Korean example in (ii) (Ko 2007:5).

- (ii) Haksayng-tul-i<sub>i</sub> [na-nun [t<sub>i</sub> sey-myeng Mary-lul mannassta-ko] sayngkakhanta]]  
 student-PL-Nom I-Top 3-CL<sub>subj</sub> M-Acc met-C think  
 "Students<sub>i</sub>, I think that three t<sub>i</sub> met Mary."

M&A (2007) and Miyagawa (2013) crucially exploit this possibility of subject scrambling in their explanation of the nonstandard paradigm. That is, according to them, subject scrambling is permissible, but only for the nonstandard paradigm.

subject is visible in its external merger position of vP for nonstandard cases, but not in standard cases. For Miyagawa, the subject of the latter paradigm is externally merged in Spec,TP, and thus does not have a vP-internal trace. However, it is no less clear why this is the case, apart from the obscure reason of there being no trace for the standard paradigm.

In this paper, I will propose that the apparent problem of “arbitrariness“ germane to these accounts can, in fact, be resolved naturally if we regard the nonstandard paradigm as a subcase of topic movement. More specifically, I will demonstrate that the subject in this paradigm undergoes topic movement to CP through A'-scrambling, while leaving a copy in its place—a usual pattern for A'-movement. On the other hand, the subject in the standard paradigm involves A-movement to Spec,TP; consequently, it lacks a trace, another fact well established in the literature (see Chomsky 1995 and Lasnik 1999 for the absence of A-movement reconstruction and no A-movement traces).<sup>2</sup>

This paper has the following structure. Sections 2 and 3 review M&A (2007) and Miyagawa (2013), highlighting some conceptual problems arising from these accounts. Capitalizing on new data from Korean and Japanese, section 4 will demonstrate that all hitherto, so-called nonstandard examples have important features in common, that is, they are motivated by the pragmatic/informational structure and maintain a particular phonological pattern, both of which are associated with topic movement (see section 4 for relevant articles indicating this fact). Section 5 deals with a potential problem (concerning EPP) of the current approach and demonstrates how it does, in fact, support the analysis that the EPP can be valued not just on T<sup>0</sup> but also on the phase head C<sup>0</sup> (by the subject DP that moves directly to CP from its predicate-internal position). This result complies with the minimalist view of Chomsky (1995 and subsequent work), by reducing computational complexities in

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<sup>2</sup> I agree with an anonymous reviewer in that not all A-movement lacks a trace. In my earlier paper (Son 2014), I have claimed that “visibility” of traces (or copies) is regulated by the principle of “Distinctness on Copies” (DC), which bans multiple occurrences of an expression in a given Search Space. For instance, A-movement of a subject from Spec-v to Spec-T has both copies of the subject within the same Search Space of C<sup>0</sup>, which comprises Spec-T, T, and Spec-v. Since this chain is incompatible with the DC, the lower copy in Spec-v undergoes Copy Elimination as a Last Resort strategy. In contrast, an object (an accusative/passive subject, as well) always leaves a visible copy in situ after A-movement. This is because the tail of the chain <Spec-T, Complement of V> undergoes Transfer upon completion of TP, and hence it remains intact to the operation of DC at the phase level of C<sup>0</sup>. I would like to refer the reader to Son 2014.

the course of a derivation and minimizing the steps of movement (see also Fox 2000 and Pesetsky and Torrego 2000). Lastly, in section 6, I conclude the paper with some desirable consequences following from the current approach.

## 2. The Standard–Nonstandard Contrast in Subject FNQs (Miyagawa and Arikawa 2007)

While observing an improved grammaticality in such Japanese sentences as (1), compared to the so-called “standard” examples in (2), Miyagawa and Arikawa (2007) have recently proposed that the acceptable sentences in (1) have a structural representation distinct from those in (2).<sup>3</sup>

<sup>3</sup> Ko (2007), relying on Fox and Pesetsky’s (2003) “Linear Preservation Principle,” claims that the distribution of FNQs in Korean (and Japanese) follow from her cyclic linearization, which demands that ordering statements established in each Spell-Out domain (i.e., vP and CP) cannot be erased at PF and should be preserved throughout derivation. For instance, the standard example (2a) is ruled out because its two ordering statements of vP and CP are inconsistent, as illustrated in (i) below.

- (i) a. \*Gakusei-ga sake-o san-nin nonda.  
       [S2 O1 t2 NQs t1 V]  
       b. [vP O1 S NQs [VP t1 V]]  
           Linearize vP: O<S<NQs  
       c. [CP S2 O1 [vP t’1 t2 NQs [VP t1 V]]]  
           Linearize CP: S<O<NQs [ordering contradiction!]

When vP is spelled out after the object scrambles to the edge of the vP, the ordering is established as O<S<NQs (see (i b)). This ordering cannot maintain in the next cycle of Transfer in the CP when the subject also undergoes scrambling and sits above the scrambled object (i c). An ordering contradiction takes place and thus the derivation crashes at PF.

However, note that Ko’s analysis cannot extend to nonstandard examples such as those in (1) because an ordering contradiction would occur whenever the subject moves across the proposed vP-internal elements (i.e., an object or a low adverb) in the higher CP-phase, precisely in the same way as in the standard case (i). cf. On Ko’s cyclic analysis, the subject is assumed not to scramble inside vP, since if it did, thereby creating a derivation like (ii), the example (i) would wrongly be predicted to be correct.

- (ii) a. [vP S2 O1 t2 NQs [VP t1 V]]  
        Linearize vP: S<O<NQs  
       b. [CP S2 O1 [vP t’1 t2 NQs [VP t1 V]]]  
           Linearize CP: S<O<NQs [ordering consistent]

Since the vP-internal subject scrambling is prohibited as such, the only way to arrive at the

- (1) a. ?Gakusei-ga sake-o [PAUSE] san-nin nonda.  
 students-Nom beer-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-katta.  
 student-Nom my-Gen book-Acc 2-CL<sub>subj</sub>-only buy-Neg-Past  
 “Only two students bought my book.” (Takami 1998:92)
- c. ?Gakusei-ga sake-o imanmadeni san-nin nonda.  
 student-Nom sake-Acc so far 3-CL<sub>subj</sub> drank  
 “Three students drank sake so far.” (Gunji and Hasida 1998:57)
- (2) a. \*Gakusei-ga sake-o san-nin nonda.  
 student-Nom sake-ACC 3-CL<sub>subj</sub> drank  
 “Three students drank sake.” (M&A:651)
- b. \*Kodomo-ga geragerato san-nin waratta.  
 child-Nom loudly 3-CL<sub>subj</sub> laughed  
 “Three children laughed loudly” (M&A:660)

M&A’s claim is based on some very interesting observations on the disparate phonological patterns between the two paradigms. In particular, in standard cases such as (2), the subject NQ and the scrambled object are organized in the same prosodic phrase, leading to a semantic “misparsing” that would fuse the two unrelated items into a single constituent (p. 650). Consequently, the sentences become uninterpretable. By contrast, the acceptable, nonstandard sentences in (1) typically contain a prosodic break between the preposed object and the subject NQ, so that the two adjacent expressions do not interfere with each other in phonological organization. Therefore, no such semantic mismatch arises and their grammaticality ensues.

Since the standard and nonstandard paradigm differ thus in prosody, according to M&A, the two paradigms are associated with structures that are disparate from one another. (3) below represents the structure for (1a), a typical example of the nonstandard paradigm (M&A 2007: 653).

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surface word order of S<O<NQs is through scrambling of the subject in the next Spell-out domain of CP. This then inevitably induces an ordering contradiction between the statements of vP and CP, indicating that the nonstandard examples will always be predicted to be ungrammatical, contrary to the fact.

- (3) a. Nonstandard paradigm: ?Gakusei-ga sake-o [PAUSE] san-nin nonda.  
 b. Derivation: [<sub>TP</sub> S [<sub>TP</sub> O [<sub>vP</sub> to [<sub>vP</sub> [<sub>ts</sub> NQ<sub>s</sub>][<sub>vP</sub> to V]]]]]

In (3b), the object first scrambles to the outer spec of vP, and then moves further to [Spec,TP], triggered by the EPP on T. Subsequently, the subject moves to a position higher than the initial Spec,TP. Thanks to this derivation of multiple scrambling, the subject NQ and the scrambled object occupy separate projections, one in vP and the other in TP. This configuration enables the subject NQ to be contained in a phonological domain separately from the preceding object, so that it avoids being construed as part of the object phrase.

Though not explicitly mentioned by M&A, it is easily conceivable what structure they have in mind for standard examples like (2a). Since their analysis is clearly built on the architecture of “prosodic phonology,” which believes that syntactic and prosodic structures are closely related (Selkirk 1986 and Cho 1990, among many others), their structure for the standard paradigm should resemble (4b).

- (4) a. Standard paradigm: \*Gakusei-ga sake-o san-nin nonda.  
 b. Representation: [<sub>TP</sub> S [<sub>vP</sub> [O NQ<sub>s</sub>] [<sub>vP</sub> to V]]]

In the above, the object scrambles to the edge of the vP, and is frozen there, unlike (3b). The stranded subject NQ in the vP, then, is erroneously organized in the same prosodic phrase with the adjacent object, resulting in a crash at LF.

As an interested reader might already have observed, this account of the standard-nonstandard contrast is built on another crucial assumption. That is, that the subject is considered to leave a trace next to the stranded NQ in the nonstandard paradigm, whereas it is not so treated in the standard paradigm (4). This is because their analysis follows the traditional Locality account (Haig 1980, Kuroda 1980, Saito 1985, Miyagawa 1989, etc.), which contends that the subject normally does not scramble and hence lacks its own trace vP-internally. In the standard derivation (4b), for instance, the subject is taken to be directly merged in Spec,TP, involving no scrambling or any sort of movement. In the absence of a licensing trace, then, the subject NQ in vP fails to meet the Locality requirement, leading the sentence to a crash. On the other hand, since the nonstandard paradigm differs in prosody from the standard paradigm, they argue that it is now assigned a special structure in which the

subject is externally merged in Spec,vP and leaves a trace after movement. Thanks to the presence of the trace, the subject NQ becomes interpretable in a strict local relation with the trace. Hence, the grammaticality of the sentence follows.

Though M&A's analysis reviewed above presents an interesting way of handling problems with the so-called nonstandard examples (i.e., exceptions to the standard paradigm) within the guidelines of the Locality, it entails a certain arbitrariness, in that, it is not obvious why the subject is merged in vP for nonstandard cases (and leaves a trace), in contrast to standard cases where it is directly merged in TP (and lacks a trace). On this analysis, there is no clear reason why they should follow these particular patterns as opposed to others. In fact, the reverse could just as well have been the case. More fundamentally, it is questionable whether they really have basic structures that are distinct from one another. Considering that the standard and nonstandard cases consist of the same lexical items and are semantically related, it would be more desirable to derive one from the other. If possible, we should abandon stipulations and instead, deduce this and other non-trivial properties of scrambling from more fundamental principles of the languages.

### 3. Telic Aspect and the Nonstandard Paradigm (Miyagawa 2013)

Recently, Miyagawa (2013) revived his earlier question of why the so-called nonstandard examples exhaustively leave a trace (or copy), unlike the standard paradigm. His new finding is that the "telic" aspect is a decisive factor; that is, if sentences are added with a description of an endpoint of the event denoted by a predicate, they become better off. (5)-(7) below illustrate the contrast in Japanese; the (b) sentences, with the time adverbs, time PPs, and goal PPs, are all greatly improved as compared to their counterparts in the (a) sentences (see Mihara 1998, Kuno and Takami 2003, Nakanishi 2004 for more examples indicating this fact.

- (5) a. \*Gakusei-ga sake-o san-nin nonda.  
           student-Nom sake-Acc three-CL<sub>Subj</sub> drank  
           "Three students drank sake."  
       b. Gakusei-ga sake-o sudeni san-nin nonda.

- student-Nom sake-Acc already three-CL<sub>subj</sub> drank  
 “Three students already drank sake.” (Miyagawa 2013:88)
- (6) a. \*Tomodati-ga zyup-pun futari odotta.  
 friend-Nom ten minutes two-CL<sub>subj</sub> danced  
 (Intended: “Two friends danced for ten minutes.”)
- b. Tomodati-ga zyup-pun-no-uti-ni futari odotta.  
 friend-Nom ten minutes-in two-CL<sub>subj</sub> danced  
 “Two friends danced (a dance) in ten minutes.”  
 (Miyagawa 2013:88)
- (7) a. ?\*Gakusei-ga kodomo-to san-nin hasitta  
 student-Nom children-with three-CL<sub>subj</sub> ran
- b. Gakusei-ga kooen-made san-nin hasitta  
 student-Nom park-as far as three-CL<sub>subj</sub> ran (Miyagawa 2013:85)

Based on this observation, Miyagawa (2013:90) states that the improvement in these examples is due to the “visible” status of the subject copy in its base position in a particular aspectual context, namely, under telic interpretation. Miyagawa’s generalization is given in (8).

(8) Telicity and the external argument (TEA)

Once the external argument moves to Spec,TP, its lower copy in the predicate-internal subject position is visible under telic interpretation.

The following examples in Korean demonstrate that Miyagawa’s TEA account is basically correct. Despite their ill-formed configuration such that the subject and its NQ are separated by the vP-internal material, the sentences in (9) are all fairly acceptable with the added telic expressions.

- (9) a. Marathon juja-deul-i kyeolseungjeum-ul taseos-myeong thongkwahaessta.  
 Marathon runner-PL-Nom finishing line-Loc 5-CL<sub>subj</sub> pass-Pst  
 “Five marathon runners have passed the finishing line.”
- b. Haksaeng-tul-i sukje-lul jikeumkkaji se-myeong jechulhaesseo.  
 student-PL-Nom homework-Acc so far 3-CL<sub>subj</sub> submitted  
 “Three students submitted homework so far.”

- c. Aytul-i yeok-kkaji se-myeong ttui-essta.  
 kids-Nom station-to 3-CL<sub>subj</sub> run-Pst  
 "Three kids ran to the station."

True as such, the TEA account reviewed in this section still falls short of a full explanation. It faces exactly the same problem as the earlier work conducted by M&A; that is, it constitutes nothing but a stipulation. More specifically, on this analysis, it is entirely unclear what is so special about the telic aspect and how telic interpretations of a sentence enable a subject to leave an otherwise impossible trace in situ. We obviously want to establish a more fundamental explanation. The following section is an elaboration of this issue, ultimately claiming that the nonstandard paradigm, in effect, involves topic movement of the subject through A'-scrambling, the consequence of which is the visible status of the copy in situ. This is in contrast to the standard cases that involve EPP-movement of the subject to Spec,TP, and accordingly leave no A-movement trace, as is the norm (see Chomsky 1995 and Lasnik 1999 for the absence of A-movement reconstruction and their claim for no A-movement traces).

#### 4. Topic Movement Analysis of the Nonstandard Paradigm

The phenomenon of a visible trace, pointed out in section 3 under the account of TEA, is in fact quite general. The following examples all demonstrate the same sort of visible trace effects and achieve grammatical integrity ((10)-(12) in Korean; (13) in Japanese).<sup>4</sup>

<sup>4</sup> Some speakers of Korean perceive no significant improvement in such sentences as (10b) and (10c), even with the "delimited" object. For those speakers, typically, there is no "pause" between the object and the following FNQ, so that the sentence crashes due to a semantic mismatch. On the other hand, speakers who accept these sentences tend to interpret the delimited object as "specific" in terms of Enç (1991), by conceiving the object to be a subset of a whole set constructed in the previous discourse contexts. So, for them, (10b) and (10c) are construed in a way similar to the following sentences.

- (i) a. Hakseng-tul-i (yeoreo maekju-jungeseo) keu maekju-rul se-myong masyoesseo.  
 student-Pl-Nom (several beer-out of) that beer-Acc 3-CL<sub>subj</sub> drank  
 "Three students drank that particular beer (out of many)."  
 b. Hakseng-tul-i maekju han-pyeong-ul (yeoreo-pyeong-i anira) se-myong masyoesseo.

- (10) a. \*??Haksaeng-tul-i maekju-lul se-myong masyeosseo.  
 student-PL-Nom beer-Acc 3-CL<sub>subj</sub> drank  
 (Intended: "Three students drank beer.")
- b. (?)Haksaeng-tul-i keu maekju-lul se-myong masyeosseo.  
 student-PL-Nom that beer-Acc 3-CL<sub>subj</sub> drank  
 "Three students drank that particular beer."  
 (or "Three students shared that particular beer.")
- c. (?)Haksaeng-tul-i maekju han-pyung-ul se-myong masyeosseo.  
 student-PL-Nom beer one-CL<sub>bottle</sub>-Acc 3-CL<sub>subj</sub> drank  
 "Three students drank only one bottle of beer."  
 (or "Three students shared one bottle of beer.")
- (11) a. \*??Haksaeng-tul-i papkhon-ul tu-myong meokeosseo.  
 student-PL-Nom popcorn-Acc 2-CL<sub>subj</sub> ate  
 (Intended: "Two students ate popcorn.")
- b. (?)Haksaeng-tul-i keu phapkhon-ul tu-myong meokeosseo.  
 student-PL-Nom that popcorn-Acc 2-CL<sub>subj</sub> ate  
 "Two students ate that particular popcorn."  
 (or "Two students shared that particular popcorn.")
- c. (?)Haksaeng-tul-i phapkhon han-ponji-rul tu-myong meokeosseo.  
 student-PL-Nom beer one-CL<sub>pack</sub>-Acc 2-CL<sub>subj</sub> ate  
 "Two students ate only one pack of popcorn."  
 (or "Two students shared one pack of popcorn.")
- (12) a. \*??Haksaeng-tul-i chaeksang-ul tu-myong ttakasseo.  
 student-PL-Nom desk-Acc 2-CL<sub>subj</sub> wiped  
 (Intended: Two students wiped a desk.)
- b. (?)Haksaeng-tul-i keu chaeksang-ul tu-myong ttakasseo.  
 student-PL-Nom that desk-Acc 2-CL<sub>subj</sub> wiped  
 "Two students wiped that particular desk."  
 (or "Two students worked together to wipe that (particular) desk.")

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student-PL-Nom beer one-CL<sub>bottle</sub>-Acc (several-CL<sub>bottle</sub>-Nom not)3-CL<sub>subj</sub> drank  
 "Three students drank only one bottle of beer (but not several bottles)."

For these speakers, improved sentences are also understood as carrying a topic interpretation of the delimited object (see the readings of the parentheses in (10b) and (10c)). I owe thanks to an anonymous reviewer for identifying two interpretations available with the improved sentences.

- c. (?)Haksaeng-tul-i chaeksang hankae-rul tu-myong ttakasseo.  
 student-PL-Nom desk one-Acc 2-CL<sub>subj</sub> wiped  
 "Two students wiped only one desk."  
 (or "Two students worked together to wipe one desk."  
 one desk.")
- (13) a. \*Gakusei-ga hono-wo yo-nin kat-ta  
 student-Nom book-Acc four-CL<sub>subj</sub> buy-Past  
 "Four students bought a book."
- b. Gakusei-ga sore/sono hon-wo yo-nin kat-ta  
 student-Nom it/that book-Acc four-CL<sub>subj</sub> buy-Past  
 "Four students bought it/the book." (Takami 1998)
- c. Gakusei-ga sore-wo go-nin katte-iki -mashi-ta  
 student-Nom it-Acc five-CL<sub>subj</sub> buy-go -Pol.-Past  
 "Yes, this morning five students came to buy it."  
 (Yoshimoto et al. 2006:105, accredited to Takami 1998)

In the above, the object DPs are modified by numerals or pointing words. Consequently, the object is "delimited" and acquires a definite/specific interpretation. Crucially, each sentence is now understood as conveying a relation of topic and comment (Gundel 1974, Kuno 1980, Reinhart 1982) or presupposition/background and focus (Chomsky 1971, Jackendoff 1972, Rochemont 1982, Lambrecht 1994), with the delimited object on the demarcation line. In an intuitive sense, sentences like (10b) and (10c) are about the "students," an entity that is already introduced and at the center of interest in the discourse. In addition, with regard to this continuing topic, and more narrowly regarding the issue of "particular beer" (10b) or "one bottle of beer" (10c), the speaker presents the updated information of the quantity of students who drank the particular beer or the given number of beers. Thus, sentence (10b), for example, carries an informal interpretation of "As for the students, the answer to the question of how many students drank the particular beer is: three."

Indeed, Miyagawa's TEA examples in (5)-(7) and the related Korean examples in (9) all share this interpretation. By adding the aspectual phrases, the subjects and their associated NQs come to play their own discourse-pragmatic roles—a topic and an (exhaustive) focus—in which the sentences convey a meaning like "As for the topic DP, the exact number of people who did the activity denoted by the verb in

the given condition of the aspectual phrases is x.” Indeed, this is precisely the discourse/pragmatic situation where an ungrammatical, standard example like (1a) becomes acceptable in the nonstandard paradigm. Recall that sentence (1a) improves significantly provided an intonation phrase break before the stranded NQ, as witnessed in (2a). M&A (2007:663–664) supply experimental evidence showing that in this case there is a pitch “reset” on the phrase *{san-nin nonda}*, beginning with the NQ. By associating these with independent studies conducted by Kratzer and Selkirk (2011, 2013) and Constant (2013, 2014) that an “exhaustive focus” is typically cued by such a reset and phonological break, we reason that the stranded NQ in the nonstandard paradigm serves as an exhaustive focus, constituting the “informative” part of the sentence that makes some contribution to the hearer’s mental knowledge about the presupposed discourse topic. This provides an initial clue that the nonstandard cases are motivated by the information structure, thereby carrying a discourse/pragmatic meaning of a topic-comment or background-focus, each realized by the subject DP and its associated NQ, respectively. If we are correct in this reasoning, Miyagawa’s generalization of TEA in (8) can be reduced to a subcase of topic movement to CP performed by a subject. Since A’-movement normally leaves a trace and involves an LF reconstruction, it is not surprising that all the TEA and nonstandard examples above maintain an accessible trace at LF. This, then, leads us to a revision of TEA as follows.

(14) Topic movement of the external argument

Once the external argument undergoes topic movement to Spec,CP, its lower copy in the predicate-internal subject position is visible.

In order to verify the revised statement (14), we need to understand the discourse-contextual functions of the constituents in a sentence, particularly for those sentences of the nonstandard paradigm. Out of many (Halliday 1967, Chomsky 1971, Gundel 1974, Dahl 1974, Kuno 1980, Reinhart 1982, Rochemont 1986, Ward 1988, Vallduví 1992, Lambrecht 1994), Vallduví’s work is instructive. Vallduví (1992) partitions a sentence mainly into two parts, “ground” and “focus,” and this binary partition of ground and focus is parallel to the given-new or presupposition-focus varieties in the literature. Vallduví further divides ground into “topic” (or link) and “tail.” The topic anchors the sentence into the previous discourse or the interlocutor’s

mental world, while the tail further specifies to where exactly the hearer's attention should be turned. In his terms, the tail is a subset of old information and sets a particular value out of a set of other alternatives in the discourse. Focus presents new information that a hearer currently lacks about the topic under discussion. This three-way distinction works very well with the examples in the nonstandard paradigm. The added aspectual phrases and the delimited objects in the nonstandard paradigm function as a tail, forcing the subject DPs and their associated NQs to play their independent discourse/pragmatic roles as a topic and focus, respectively, in certain discourse contexts. For instance, take the TEA example of (5), repeated here as (15).

- (15) a. \*Gakusei-ga sake-o san-nin nonda.  
 student-nom sake-acc three-CL<sub>subj</sub> drank  
 "Three students drank sake."  
 b. Gakusei-ga sake-o sudeni san-nin nonda.  
 student-nom sake-acc already three-CL<sub>subj</sub> drank  
 "Three students already drank sake."

In the standard paradigm (15a), under the neutral intonation pattern, the object *sake* and its adjoining subject NQ are construed as a single unit (at least at some psychological level), as M&A (2007) observe. The combined unit, then, is incorrectly considered an object (phrase) and placed in the vP-edge position as a whole, thus creating space for the subject DP in Spec,TP. However, this is not the case in the nonstandard paradigm of (15b). With the aspectual phrase *sudeni* "already" being inserted between the object and the subject NQ, the two, previously one unit, now become severed. This has the effect of pushing the object to a structural position where it can receive old or given information, namely, to the domain of TP. This displacement of the object, in turn, has an impact on the position of the subject DP; it has to move across the preposed object, presumably, to Spec,CP through A'-movement.

In this view, the stranded NQs provide focus in the nonstandard paradigm, and this claim corroborates the following fact. As seen in (16) and (17), the nonstandard examples are perfectly appropriate if found in the dialogue contexts of questions and corrections. [The examples are in Korean.]

- (16) A: Haksaeng-tul-i maekju-lul myeoss-myeong masyoesseoss-ni?  
 student-PL-Nom beer-Acc how many-CL<sub>subj</sub> drank-Q  
 “How many students drank beer?”
- B: Haksaeng-tul-i maekju-lul se-myeong masyoesseo.  
 student-PL-Nom beer-Acc 3-CL<sub>subj</sub> drank  
 “Three students drank beer.”
- (17) A: Haksaeng-tul-i maekju-lul yeoreo-myeong masyoesseo.  
 student-PL-Nom beer-Acc several-CL<sub>subj</sub> drank  
 “Several students drank beer.”
- B: Aniya, haksaeng-tul-i maekju-lul han-myeong masyoesseo.  
 No, student-PL-Nom beer-Acc 1-CL<sub>subj</sub> drank  
 “No, (only) one student drank beer.”

In the above, speaker B supplies the complete (exhaustive) information about the quantity of students who drank beer by means of the NQ constituent in-situ. The number of students in question is exactly “three” (in (16B)) or “one” (in (17B)), no more or no less. The wh-question in (16A) solicits information to identify the precise value, out of the superset comprised of different numbers, of students who drank beer. In response to this question, the speaker in (16B) singles out one particular number of students, “three” in this case, from the given numerical set. The same is true in the dialogue context of corrections. By uttering (17b) with the substituted NQ, the speaker corrects the incorrect information given in the previous utterance concerning the quantity of students who drank beer. In both cases, the NQs naturally receive a sentence-level phonetic prominence, with a phonological break immediately prior to the NQs, while presenting a novelty of the information relevant in the discourse contexts. Combining these phonological cues with the fact that a focused entity normally occurs in the position immediately before the verb in Korean and Japanese (Kuno 1973, Takami 1998, Yoshimoto et al. 2006, Jun 1993), we obtain quite a convincing argument that the stranded NQs are an (exhaustive) focus in the nonstandard paradigm. The remainder of the sentence then provides the presupposed, background information necessary to turn the interlocutor’s attention to the issue on the table.

Thus far discussions provide substantial support to the topic analysis for the nonstandard paradigm. That is, in the nonstandard paradigm, the subject has

undergone topic movement to CP from its predicate-internal position next to the stranded NQ. The telic expressions noted by Miyagawa (2013) and the definite/specific phrases in (10)-(13) then have the effect of strengthening this particular partition of the sentence into “topic” and “focus,” by positioning themselves in the domain of T that hosts stage-level expressions (Diesing 1992). A fact well-established in the literature is that aspectual phrases, marking an end point of time (perfect/imperfect) or space of the event described by a predicate, position themselves around the T domain (see Mihara 1998, Nakanishi 2004, and Miyagawa 2010 for examples pointing to this fact). If so, Miyagawa’s TEA sentences above, for example (5b), are construed as having the following structure.

- (17) a. Gakusei-ga sake-o sudeni san-nin nonda.  
 student-Nom sake-Acc already three-CL<sub>subj</sub> drank  
 “Three students already drank sake.”  
 b. [<sub>CP</sub> Subj [<sub>TP</sub> Obj *aspectual phrase* [<sub>VP</sub> [<sub>Subj</sub> NQs][<sub>VP</sub> Obj V]]]]

In (17b), the object has risen to a position higher than the aspectual phrase, presumably to [Spec,TP], and the subject has moved to a topic position in Spec-C across the fronted object. Given this structure, the NQ stranding of the subject is guaranteed since the subject copy in Spec,vP is left behind the topic movement, fulfilling the locality requirement for the stranded NQ in situ.<sup>5</sup>

<sup>5</sup> According to Miyagawa (personal communication), in a sentence like (17), the aspectual adverb may appear in other positions around the sentence, while maintaining almost the same degree of acceptability. Thus, the following sentences are all acceptable, though not perfect. [cf. As an anonymous reviewer observes, the same holds in Korean, as well.]

- (i) a. ?Gakusei-ga sudeni sake-o san-nin nonda.  
 student-Nom already sake-Acc three-CL<sub>subj</sub> drank  
 b. ?Sudeni gakusei-ga sake-o san-nin nonda.  
 already student-Nom sake-Acc three-CL<sub>subj</sub> drank

I do not have a clear answer to this problem at the moment, but one way to understand such grammaticality is to assume that the sentences in (i) have had a structure like (17b) in their derivational history. That is, the sentences in (i) could have been derived from the following structure (ii) before they reach their surface word orders in (iia) and (iib).

- (ii) [<sub>CP</sub> Subj [<sub>TP</sub> Obj aspectual phrase [<sub>VP</sub> [<sub>Subj</sub> NQs][<sub>VP</sub> Obj V]]]]  
 (iii) a. [<sub>CP</sub> Subj aspectual phrase [<sub>TP</sub> Obj ~~aspectual phrase~~ [<sub>VP</sub> [<sub>Subj</sub> NQs][<sub>VP</sub> Obj V]]]]  
 b. [<sub>CP</sub> aspectual phrase Subj [<sub>TP</sub> Obj ~~aspectual phrase~~ [<sub>VP</sub> [<sub>Subj</sub> NQs][<sub>VP</sub> Obj V]]]]

The same holds for the definite/specific examples in (10)-(13). There is ample cross-linguistic evidence that definite or specific DPs move to the TP domain for relevant interpretations (Ross 1967, Chafe 1976, Enç 1991, De Hoop 1992, Webelhuth 1992, Diesing 1994, Kiss 1998, etc.). From this view, a sentence like (10b), for instance, has the derivation in (18).

- (18) a. (?)Haksaeng-tul-i keu maekju-lul se-myong masyeosseo.  
 student-PL-Nom that beer-Acc 3-CL<sub>people</sub> drank  
 b. [<sub>CP</sub> Subj [<sub>TP</sub> Obj [<sub>VP</sub> [<sub>Subj</sub> NQs][<sub>VP</sub> Obj V ]]]]

According to Kuno (1973) and Takami (1988) in Japanese (and also in Korean; see Jun 2003 for this fact) the constituent immediately before the verb provides the newest information in the sentence. Therefore, when the object is a definite NP, as in (18), it becomes informationally less important, and accordingly its adjoining NQ is elevated to the most important information in the structure. Syntactically speaking, this means that the definite/specific object moves to the TP (where it acquires a relevant interpretation), and the subject moves further to the CP passing over the fronted object. Since the subject undergoes A'-movement to a topic position, it leaves a trace next to the associated NQ. The NQ stranding of the sentence is then correctly predicted.<sup>6</sup>

## 5. Topic Movement and the EPP

Under the current view of the nonstandard paradigm involving topic movement of the subject, a potential problem might arise from such examples as (6b), (7b), and

<sup>6</sup> An anonymous reviewer is curious about a theoretically possible derivation such as follows concerning its grammaticality.

- (i) [<sub>CP</sub> Subj [<sub>VP</sub> Obj [<sub>VP</sub> Subj NQs [<sub>VP</sub> Obj V]]]]

In the above, the subject and the object move to Spec,CP and Spec,VP, respectively. Given this derivation, the lower copy of the subject becomes "visible" as a variable, so (i) is legitimate from the viewpoint of the Locality requirement imposed on the FNQ. However, this derivation crashes for an independent reason. Recall that M&A have excluded the standard derivation (4) by resorting to the "semantic mismatch" between the object and the FNQ<sub>subj</sub> in the same maximal phrase, vP. The same explanation applies to the derivation (i) and rules it out.

(9c). Note that in these sentences there is no object DP that will value the EPP-feature on T. As such, they are predicted to crash in violation of EPP, contrary to the fact. Consider (19), which we think is the appropriate structure for these sentences.

(19) [<sub>CP</sub> Subj [<sub>TP</sub> aspectual phrase [<sub>vP</sub> [Subj NQs][<sub>vP</sub> Obj V]]]]

Our concern here is how the structure in (19) satisfies the required EPP and achieves grammaticality. Regarding this issue, we consider two possibilities, either of which is well compatible with the current analysis. Erlewine (2013), based on the Agent Focus phenomenon in the language of Kaqchikel, argues that EPP is not required in this language. Extraction of the vP-internal DPs, either the subject or object, is rather taken to be an instance of movement that complies with the principle of Distinctness (Richards 2010), which prohibits identical nodes from appearing in the same phase.<sup>7</sup> On this analysis, it is not necessary to fill in Spec,TP as long as Distinctness is satisfied. If Korean and Japanese are identical to Kaqchikel in this regard, the derivation (19) turns out to be well formed, despite its structural appearance of being in conflict with EPP.<sup>8</sup> Another option is to abide by Pesetsky and Torrego's (2000) analysis that claims the EPP-valuation on C. To account for the absence of T-to-C movement in *wh*-subject questions such as (20) below, they argue that (i) T-to-C movement in English is for the purpose of EPP-feature checking on C, (ii) D bears an uninterpretable T-feature, and (iii) in (20a) the required EPP-valuation is fulfilled by movement of the subject *wh*-DP to Spec,CP.

- (20) a. Who bought the book?  
 b. \*Who did buy the book [\* unless *did* is focused]

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<sup>7</sup> The Distinctness principle (i) below states that two nodes that are too similar, e.g., of the same category, cannot be in the same phase. Thus, one of the DPs, either a subject or an object, must move out of the vP-phase to avoid a derivational crash.

(i) Distinctness Principle (Richards 2010)

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

<sup>8</sup> If this line of analysis is correct, scrambling is regulated by the principle of Distinctness, rather than by the EPP.

The structure below provides the representation for (20a) after *wh*-movement to Spec,CP.

(21) [<sub>CP</sub> [<sub>DP</sub> Who, *uT*] [<sub>C</sub>, EPP-*uT*, *uWh*] [<sub>TP</sub> *t*<sub>who</sub> T bought the book]]]

In (21), the *wh*-DP values the *uT*-feature, viz. EPP-feature, as well as the *uWh*-feature on C after movement. As the *uT*-feature on C is deleted by the topicalized *wh*-phrase, T-to-C movement is suppressed (see the ill-formedness of (20b)). Along this line of analysis, also assuming with Chomsky (2000, 2001, 2008) that C, but not T, is the locus of the EPP-feature, we believe that a structure like (19) is plausible in the grammar of Korean and Japanese.<sup>9</sup> In this structure, the subject bypasses Spec,TP and moves directly to Spec,CP from its  $\Theta$ -position in Spec,vP. EPP is then valued on C, but not on T, by means of topicalization. Note that this operation is “economical” as much as the derivation (21). In (21), the two uninterpretable features on C, i.e., the *uWh*-feature and the *uT*-feature, are valued simultaneously by a single operation of *wh*-movement, rather than by two independent operations of *wh*-movement and T-to-C movement. Similarly, topic movement of the subject in (19) values the two features on C—an EPP and an edge feature of topic—by a single operation (rather than by employing two steps of successive operations).<sup>10</sup>

<sup>9</sup> Chomsky (On Phases, p. 14) states that the phase head C has two probes: (i) the edge-feature that attracts discourse-related elements to the edge of C, and (ii) the Agree-feature (or EPP-feature) that attracts DPs, but only as far as T. Although agreeing with Chomsky’s stance of the EPP-feature on C, we sharply digress from his position that the EPP is only valued by the mediation of T. As far as we can see, there is no obvious reason (either conceptually or experimentally) that the phase head C cannot do the required job on its own. By taking the alternative view, such as that of Pesetsky and Torrego (2000) and Erlewine (2013), for the analysis of the nonstandard cases developed here, we achieve “derivational economy,” a welcome result in the minimalist program.

<sup>10</sup> In this view, whether a subject raises to C or to T depends on semantic interpretations of the sentence. [Be wary that presence or absence of an object in a sentence does not really matter in this regard.] If C bears an edge feature (“topic” feature in this case), the subject raises to C; otherwise, the subject raises to T, with no respect to the presence or absence of an object (see the well-formedness of (6b), (7b) and (9c), together with the ill-formedness of the Standard paradigm (4)). This state of affairs entails that syntactic representations are sensitive to the semantics associated with the syntactic form and that the most optimal structure calculated by “Economy” (e.g., Fox’s (2000) “Least Effort Economy”) survives at the interfaces. This finding gives a substantial support to Fox’s proposal that syntax-semantics relationship is not unidirectional; that is, facts about interpretation affects syntactic operations. I owe thanks to an anonymous reviewer

This view, in effect, provides a new insight for the classical binary distinction of A- and A'-movement. Note that in (19) EPP is satisfied at  $C^0$ , with no mediation of  $T^0$ , indicating that A'-movement may not pass through Spec,TP for EPP-valuation. To put it a different way, although A-movement involves EPP-feature checking at  $T^0$ , A'-movement may not. If our conjecture is correct, the subject in the nonstandard examples moves to an A'-operator position in a single swoop, rather than passing through an A-position of Spec,TP, quite contrary to what they appear. Note that this analysis does not distort Miyagawa's (2001) original claim of EPP-scrambling, in which local scrambling is considered to be driven by the EPP-feature. Although Miyagawa (2001) has observed just one type of EPP-driven scrambling at the time, that is, A-scrambling targeting Spec,TP that lacks a trace, we now add another type of EPP-scrambling; A'-scrambling satisfies EPP at Spec,CP and does leave a copy in its first-merger position. In fact, in his earlier work, Miyagawa (1997) had already noted two types of scrambling, EPP-driven A-scrambling and focus-driven A'-scrambling. Moreover, in more recent work, Miyagawa (2010) opens the possibility of subject movement directly to TopP or FocP from its vP-internal position, in addition to EPP-movement to Spec,TP. All this work is in line with the current analysis, leading to the conclusion that both the standard and nonstandard paradigm of FNQ-constructions result from the binary patterns of local scrambling. That is, the nonstandard paradigm is an illustration of A'-scrambling, permitting LF-reconstruction to the predicate-internal positions, while the standard paradigm is A-scrambling for which no reconstruction is permissible.<sup>11</sup>

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for drawing my attention to this point.

<sup>11</sup> Although I have not assigned much space in this paper for the analysis of the standard paradigm, I have claimed in other paper (Son 2014) that examples like (ia), a representative form of the standard cases, have the following structure of (ib).

- (i) a. \*Gakusei-ga sake-o san-nin nonda.  
 student-Nom sake-Acc three-CL<sub>subj</sub> drank  
 "Three students already drank sake."  
 b. [<sub>TP</sub> Subj [<sub>vP</sub> Obj [<sub>v'</sub> Subj NQs]<sub>[vP</sub> Obj V]]]]

In the above, the subject undergoes EPP-movement to Spec,TP across the fronted object in vP. This derivation is illegitimate for two reasons; firstly, A-movement of the subject from Spec,vP to Spec,TP does not make its lower copy "visible" at LF (ultimately due to the "Distinctness" effects on copies, stated in (iia) below). Secondly, Abels's (2003) version of the Last Resort constraint is violated as the object moves to a position where no new feature-satisfaction relation is established (see (iib)).

## 6. Conclusion and Consequences

This paper claims that the nonstandard paradigm of FNQ-constructions is merely a subcase of a more general type of movement, viz. topic movement of the subject to Spec,CP that leaves a trace (or copy) in support of its stranded NQ. Since topic movement, in general, leaves a trace in its external merger position (unlike A-movement), this analysis desirably furnishes a simple and natural account for the vexing problems that otherwise arise under the previous Locality approaches. Recall that Miyagawa and Arikawa's (2007) and Miyagawa's (2013) works fail to explain the optional presence of the subject trace in the standard and nonstandard paradigms. The subject was simply assumed to be externally merged in Spec,TP in the standard paradigm (and hence, no trace in Spec,vP), but merged in Spec,vP followed by EPP-movement to Spec,TP in the nonstandard paradigm (while leaving a trace in place). In contrast to these, the current analysis successfully explains why we have this disparity with respect to the presence and absence of the subject traces. On the current view, the subject is taken to be externally merged in Spec,vP in both paradigms, thus eliminating the arbitrary nature of the initial subject position. The presence or absence of the subject traces is then a consequence of the type of movement performed by the subject. If the subject undergoes topic movement to Spec,CP, it leaves a trace, as is usual with other topic movement. By contrast, if it involves A-movement to Spec,TP, it lacks a trace, again, on a par with other cases of A-movement. As such, this analysis achieves a natural and unified account of both paradigms, a desirable result.

This approach has a further consequence beyond the scope of the current research interests. As can be seen below, when subject NQs are suffixed by adverbial particles such as “only” (Korean *-pakkey* Japanese *-sika*) or “as many as” (Korean *-ina* Japanese *-mo*), or when the subject NQs are NPIs themselves (Korean *amuto*), bare plurals such as “all” (Korean *motu* Japanese *tomo*), “several people” (Korean *yereo-myeong*), or “how many people” (Korean *myeoss-myeong*), the

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- (ii) a. Distinctness on Copies (Son 2014)  
 Identical copies cannot appear with a Search Space (defined under Chomsky's (2001, 2008) Phase Impenetrability Condition).
- b. Last Resort (Abels 2003: 103)  
 A constituent  $\alpha$  may only be merged if that leads to the immediate satisfaction of a previously unsatisfiable feature.

sentences are all judged to be grammatical (see more examples of this from Takami 1998, Kim 2004, Miyagawa 2010, and Yoshimoto et al. 2006). [(22a) is Japanese and all others are Korean.]

- (22) a. Gakusei-ga watasi-no hon-o futa-ri-sika kaw-ana-katta.  
 student-Nom my-Gen book-Acc 2-CL<sub>subj</sub>-only buy-Neg-Past  
 “Only two students bought my book.” (Takami 1998, 1:92)
- b. Haksaeng-tul-i nae-chaek-ul tu-myeong-ina sassta.  
 student-PL-Nom my-book-Acc 2-CL<sub>subj</sub>-as many as bought  
 “As many as two students bought my book.”
- (23) a. Haksaeng-tul-i maekju-lul amuto/han-myeong-to/han-myeong-pakkey  
 student-PL-Nom beer-Acc anyone/one-CL<sub>subj</sub>-Foc/one-CL-only  
 masiji-anh-ass-eo.  
 drink-not-Past-Decl  
 “No/not a single/only one student drank beer.”
- b. Haksaeng-tul-i maekju-lul motu/yereo-myeong masyeosseo.  
 student-PL-Nom beer-Acc all/several-CL<sub>subj</sub> drank  
 “All/several students drank beer.”
- c. Haksaeng-tul-i maekju-lul myeoss-myeong masyeosseoss-ni?  
 student-PL-Nom beer-Acc how many-CL<sub>subj</sub> drank-Q  
 “How many students drank beer?”

Besides, multiple subject constructions such as the following entertain perfect grammaticality in Korean (24a) and Japanese (24b).

- (24) a. Haksaeng-tul-i maekju-lul se-myeong-i masyeosseo.  
 student-PL-Nom beer-Acc three-CL<sub>subj</sub>-Nom drank  
 “Three students drank beer.”
- b. Gakusei-ga sake-o san-nin-ga nonda.  
 student-Nom sake-ACC 3-CL<sub>subj</sub>-Nom drank  
 “Three students drank sake.”

So far in the literature, all the examples above have been treated as falling outside the research domain of floating numeral quantifiers, by considering the

(quasi-)NQs in various types above to be an element merged in the structure independently of the preceding, nominative-marked DPs. However, under the current approach, these quasi-NQ examples do not differ greatly in essence from the nonstandard cases that we have seen thus far.<sup>12</sup> Commonly, in both the nonstandard cases and these examples, the DP and its associated NQ are externally merged, as a unit, into the position of Spec,vP, but split off in the course of the derivation. The DP then undergoes topic movement to Spec,CP, while leaving an interpretable copy next to the quasi-NQ. In effect, this view enlightens our understanding of the agreement relation that the quasi-NQs hold with their host DPs in all Korean examples above. For instance, as the contrast in (25) below illustrates, the topicalized DPs and their associated NQs must agree in number for the sentence to be grammatical.

- (25) a. Haksaeng-tul-i maekju-lul se-myeong-i masyeosseo.  
 student-PI-Nom beer-Acc three-CL<sub>subj</sub>-Nom drank  
 “Three students drank beer.”  
 b. \*Haksaeng-i maekju-lul se-myeong-i masyeosseo.  
 student-Nom beer-Acc three-CL<sub>subj</sub>-Nom drank

In a well-educated language, the two semantically correlated expressions are expected to agree in honorific-feature, as well.

- (26) a. Seonsaengnim-tul-k’eseo maekju-lul se-pun-i teusyeosseo.  
 teacher-PI-NOM<sub>hon</sub> beer-Acc three-CL<sub>subj/hon</sub>-Nom drank<sub>hon</sub>  
 “Three teachers drank beer.”  
 b. #Seonsaengnim-tul-k’eseo maekju-lul se-myeong-i teusyeosseo.  
 teacher-PI-NOM<sub>hon</sub> beer-Acc three-CL<sub>subj</sub>-Nom drank<sub>hon</sub>

The  $\Phi$ -feature agreement relation witnessed above naturally follows if the DPs

<sup>12</sup> One might wonder why the nonstandard examples, in general, are less acceptable than such examples as (24). We speculate that this is because the former lack the morphological support apparent in the latter. In the absence of such morphology that associates the subject NQs with the preceding DPs (in the topic position), the nonstandard examples can only attain the same effects with the help of a peculiar sort of prosody in order for the NQs to be correctly interpreted. The rarity of the required prosody, then, is thought to be the source of the degradedness.

and their associated NQs form a single unit at the time of external merge in the narrow syntax, similar to such approaches in binding and control proposed by Hornstein (2001) and Grohmann (2004). These authors have independently claimed that co-referring elements such as the antecedent-reflexive and the controller-PRO be treated as a constituent and externally merged in the positions where the bound elements are  $\Theta$ -generated. In this way, they eliminate traces from the theory of grammar (in favor of copies), so as to effectively capture how the syntactic and semantic correlations hold between the co-referring entities without invoking the “Inclusiveness“ condition in the minimalist framework.<sup>13</sup>

Interestingly, in all grammatical examples above in (22)-(26), there is a strong phonological break between the FNQs and the preceding objects, in precisely the same way as in the nonstandard paradigm. This again corroborates the current conclusion that these and nonstandard cases share the same structural configuration. In this common configuration, the fronted object and the subject FNQ form a string-adjacent unit neither in syntax nor in phonological structure. Instead, the object moves to Spec,TP, rather than to the vP-edge position next to the subject FNQ. This, in turn, means that the DP associated with the subject FNQ has undergone topic movement to Spec,CP, across the preposed object in Spec,TP. As the subject undergoes topic movement, its copy survives at the interfaces, helping the remnant NQ with its interpretation at LF. The quasi-NQ sentences in (22)-(26) thus will have the following form, sharing the same structure as the nonstandard paradigm.

(27) [<sub>CP</sub> Subj [<sub>TP</sub> Obj [<sub>VP</sub> [Subj NQs][<sub>VP</sub>  $\Theta$ bj V ]]]]

The quasi-NQ examples seen in this final section give substantial support to our

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<sup>13</sup> Kayne (1981), Belletti (1982), and Doetjes (1997) have already proposed an “anaphoric“ approach to the floating quantifiers. They considered the relation of the host DP and its associated FNQ to be the same as that of an antecedent and its anaphor. If our analysis in this paper is correct, the quasi-NQ examples such as (22)-(26) and all the FNQ cases (including the standard and nonstandard FNQs) can be unified under the rubric of anaphoric construction. That is, in this construction, the associated DP and NQ initially form a constituent but are separated later in the course of the derivation. The DP moves from the position next to the NQ to either Spec,TP (via A-scrambling) or Spec,CP (A'-scrambling), invariably leaving a copy. The movement type, then, determines the visibility of the copy; only A'-movement leaves a visible copy that supports the remnant NQ. As such, only the quasi-NQ sentences and the nonstandard cases survive, while the standard FNQ cases all crash in violation of the strict locality.

analysis of the nonstandard paradigm in this paper. Thus far in the literature, they have been treated as distinct species containing disparate grammatical formatives. However, through the current analysis, they are unified under the rubric of topic movement; both cases involve topic movement of the subject to Spec,CP, a hitherto unknown fact. Given that the standard paradigm of FNQ-constructions involves A-movement to Spec,TP, we now have a clear understanding of why these, to the exclusion of the standard paradigm, survive in grammar; only A'-movement leaves a visible copy at the interfaces that fulfills the locality requirement of the remnant NQs.

### References

- Abels, Klaus. 2003. Successive Cyclicity, anti-locality, and adposition stranding. Doctoral dissertation. University of Connecticut.
- Belletti, Adriana. 1982. On the anaphoric status of the reciprocal construction in Italian. *The Linguistic Review* 2:101-138.
- Bobaljik, Jonathan David. 2003. Floating quantifiers: handle with care. In *The second GLOT International state-of-the-article book*, ed. by Lisa Cheng and Rint Sybesma, 107-148. Berlin: Mouton de Gruyter.
- Bošović, Željko. 2004. Be careful where you float your quantifiers. *Natural Language and Linguistic Theory* 22:681-741.
- Chafe, Wallace L. 1975. Givenness, contrastiveness, definiteness, subjects, topics, and point of view. Doctoral dissertation. University of Massachusetts at Amherst.
- Cho, Young-mee Yu. 1990. Syntax and Phrasing in Korean. In *The Phonology-Syntax Connection*, ed. by Sharon Inkelas and Draga Zec. 47-62. Stanford, CA: CSLI Publications.
- Chomsky, Noam. 1971. Deep Structure, Surface Structure, and Semantic Interpretation. In *Semantics*, ed. by D. Steinberg and L. Jakobovits. 183-216. Cambridge: Cambridge University Press.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by R. Martin, D. Michaels, and J. Uriagereka, 89-155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In Ken Hale: *A Life in Language*. ed. by Michael Kenstowicz, 1-52. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory*. ed. by

- Freiden Robert, Carlos P. Ostero and Maria Luisa Zubizarreta. 133-166. Cambridge, Mass.: MIT Press.
- Constant, Noah. 2013. Contrastive Topic: Meanings and Realizations. Doctoral dissertation, University of Massachusetts at Amherst.
- Dahl, Östen. 1974. Topic-comment structure revisited. In *Topic and Comment, Contextual Boundedness and Focus (Papers in Text Linguistics 6)*, ed. by Östen Dahl. 1-24. Hamburg: Helmut Buske.
- De Hoop, Helen. 1992. Case configuration and noun phrase interpretation. Doctoral dissertation, University of Groningen.
- Diesing, Molly. 1992. Indefinites. Cambridge, MA: MIT Press.
- Doetjes, Jenny. 1997. Quantifiers and selection: On the distribution of quantifying expression in French, Dutch, and English. The Hague: Holland Academic Graphics.
- Erlwine, Michael Yoshitaka. 2013. Anti-locality and Kaqchikel Agent Focus. To appear in *Proceedings of the 31st West Coast Conference on Formal Linguistics 31*. Cascadilla Press.
- Enç, Mürvet. 1991. The semantics of specificity. *Linguistic Inquiry* 22:1-25.
- Fox, Danny. 2000. *Economy and Semantic Interpretation*. Cambridge, Mass.: MIT Press.
- Fox, Danny. 2002. Antecedent constraint deletion and the copy theory of movement. *Linguistic Inquiry* 33.1:63-96.
- Fox, Danny, and David Pesetsky. 2003. Cyclic Linearization and the typology of movement, Lecture notes, Linguistic Society of America Summer Institute, Michigan State University, East Lansing.
- Grohmann, Kleanthes K. 2003. Successive cyclicity under (anti-)local considerations. *Syntax* 6:3, 260-312.
- Gundel, Jeanette. 1974. The role of topic and comment in linguistic theory. Doctoral dissertation. University of Texas at Austin.
- Gunji, Takao and Koiti Hasida. 1998. Measurement and quantification. In *Topics in constraint-based grammar of Japanese*, ed. by Takao Gunji and Koiti Hasida, 39-79. Dordrecht: Kluwer.
- Haig, John. 1980. Some observations on quantifier floating in Japanese. *Linguistics* 18:1065-1083.
- Holliday, Michael Alexander Kirkwood. 1967. *Intonation and grammar in British English*. Mouton, The Hague.
- Hornstein, Nobert. 1995. *Logical from: from GB to minimalism*. Cambridge, MA: Blackwell.
- Hornstein, Nobert. 2001. Move! A minimalist theory of construal. Blackwell publishers.
- Ishii, Yasuo. 1998. Floating quantifiers in Japanese: NP quantifiers, VP quantifiers, or both?" In *Grant-in-Aid for COE Research Report (2)*: 149-171. Chiba, Japan: Kanda University of International Studies.
- Jackendoff, Ray S. 1972. *Semantic Interpretation of Generative Grammar*. Cambridge, MA:

- MIT Press.
- Jun, Sun-Ah. 1993. The phonetics and phonology of Korean prosody. Doctoral dissertation. Ohio State University.
- Kayne, Richard. 1981. ECP extensions. *Linguistic Inquiry* 12:93-133.
- Kim, Jong-Bok. 2013. Floated numeral classifiers in Korean: A non-derivational, functional account Floating Quantifiers. *Lingua* 133:189-212.
- Kim, Soo-Yeon. 2004. Constraints on Distributional Patterns of Floating Quantifiers. In *Eoneuhak* [The Linguistic Association of Korean Journal] 38:43-66.
- Kim, Yong-Ha. 2008. Against Cyclic Linearization: Scrambling and Numeral Quantifiers in Korean. In *Language Research* 44(2):241-274.
- Kiss, Katalin É. 1998. Identificational focus versus information focus. Ms.
- Kiss, Katalin É. 2007. Topic and focus: Two structural positions associated with logical functions in the left periphery of the Hungarian sentence. In *The Notions of Information Structure*, ed. by Caroline Féry, Gisbert Fanselow, and Manfred Krifka, 69-81.
- Ko, Heejeong. 2007. Asymmetries in scrambling and cyclic Linearization. *Linguistic Inquiry* 38:49-83.
- Kuroda, Sige Yuki. 1988. Whether we agree or not: A comparative syntax of English and Japanese. *Linguistic Investigations* 12:1-47.
- Kratzer, Angelika, and Elisabeth Selkirk. 2011. Contrastive focus vs. discourse-new: evidence from phonetic prominence in English. *Language* 87:771-816
- Kratzer, Angelika, and Elisabeth Selkirk. 2013. Prosody and information structure, Lecture notes, The 2013 Linguistic Society of America Summer Institute, held at The University of Michigan at Ann-Arbor.
- Kuno, Susumu. 1973. *The Structure of the Japanese Language*. Cambridge, Mass.: MIT Press.
- Kuno, Susumu, and K. Takami. 2003. Remarks on unaccusativity and unergativity in Japanese and Korean. In William McClure (ed.). *Japanese/Korean Linguistics* 12:280-294. Stanford, Calif.: CSLI.
- Kurata, Kiyoshi. 1991. The syntax of dependent elements. Doctoral dissertation, University of Massachusetts, Amherst.
- Lambrecht, Knud. 1994. *Information structure and sentence Form*. Cambridge: Cambridge University Press.
- Lasnik, Howard. 1999. Chains of arguments. In *Working Minimalism*. ed. by S.C. Epstein and N. Hornstein. MIT Press.
- Lee, Chungmin, 2003, Contrastive topic and/or contrastive focus. In *Japanese and Korean Linguistics* 12:382-420. ed. by William McClure. Elsevier.
- Lee, Young-Suk. 1993. Scrambling as case-driven obligatory movement. Doctoral Dissertation. University of Pennsylvania, Philadelphia, Penn.
- May, Robert. 1985. *Logical Form: Its structure and derivation*. Cambridge, MA: MIT Press.

- Mihara, Ken-ichi. 1998. *Nihongo-no Toogo Koozoo* [Syntactic structures in Japanese]. Tokyo: Syoakusya.
- Miyagawa, Shigeru. 1989. *Structure and case-marking in Japanese*. New York: Academic Press.
- Miyagawa, Shigeru. 2001. The EPP, Scrambling, and Wh-in Situ. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 293-338. Cambridge, Mass.: MIT Press.
- Miyagawa, Shigeru. 2003. A-movement scrambling and options without optionality. In *Word order and Scrambling*, ed. by Simin Karimi, 177-200. Oxford: Blackwell. .
- Miyagawa, Shigeru. 2005. EPP and semantically vacuous scrambling. In *The Free Word order Phenomenon*, ed. by Joachim Sabel and Mamoru Saito, 181-220. Berlin: Mouton de Gruyter.
- Miyagawa, Shigeru. 2010. Why Agree? Why Move? Linguistic Monograph Fifty-Four. The MIT Press, Cambridge, Massachusetts.
- Miyagawa, Shigeru. 2013. Telicity, stranded numeral quantifiers, and quantifier scope. chapter 2. Ms. MIT.
- Miyagawa Shigeru, and Koji Arikawa. 2007. Locality in Syntax and Floating Numeral Quantifiers. *Linguistic Inquiry* 38(4):645-670.
- Moon, Gui-Sun. 2007. Scrambling and PIC: against Cyclic Linearization. In *Studies in Generative Grammar* 17(2), 233-252. Seoul.
- Nakanishi, Kimiko. 2001. Prosody and Information structure in Japanese: a Case study of Topic marker -wa. In *Japanese/Korean Linguistics 10*: 434-447. Stanford: CSLI.
- Nakanishi, Kimiko. 2004. Domains of measurement: Formal properties of non-split/split quantifier constructions. Doctoral dissertation, University of Pennsylvania, Philadelphia.
- Nishigauchi, Taisuke, and Yasuo Ishii. 2003. *Eigo kara nihongo o miru* [Looking at Japanese from English]. Tokyo: Kenkyusha.
- Pesetsky, David, and Esther Torrego. 2001. T-to-C movement: causes and consequences. In *ken Hale: A life in language*, ed. by Michael Kenstowicz. Cambridge, Mass.: MIT Press.
- Reinhart, Tanya. 2006. *Interface strategies*. Cambridge, Mass.: MIT Press.
- Richards, Norvin. 2000. *Uttering Trees*. Linguistic Inquiry Monograph 56, Cambridge, Massa.: MIT Press.
- Richards, Norvin 2006. A Distinctness Condition on Linearization. MIT, Cambridge, Mass.
- Richards, Norvin. 2010. (Revised) *Uttering Trees*. MIT Press.
- Rochemont, Michael S. 1986. *Focus in generative grammar*. Amsterdam: John Benjamins.
- Saito, Mamoru. 1985. *Some Asymmetries in Japanese and Their Theoretical Implications*. Doctoral Dissertation. MIT, Cambridge, Mass.
- Selkirk, Elisabeth L. 1986. Sentence prosody: Intonation, stress, and phrasing. In *The handbook of phonological theory*, ed. by John Goldsmith, 550-569. Cambridge: Blackwell. S-Y
- Selkirk, Elisabeth L. 1995. Sentence prosody: Intonation, Stress, and phrasing. In *The*

- Handbook of Phonological Theory*, ed. John A. Goldsmith, chap.16, 550-569. Cambridge, MA and Oxford, UK: Blackwell.
- Son, Gwangrak. 2014. Asymmetries in scrambling and locality-sensitive traces. Ms. Kyungpook National University.
- Sohn, Keun-Won. 1995. Negative polarity items, scope and economy. Doctoral dissertation, University of Connecticut, Storrs.
- Takami, Ken-ich. 1998. Nihongo no suuryousi yuuri nituite [On quantifier float in Japanese]. *Gekkan Gengo* 27(1): 86-95. Tokyo: Taishukan.
- Tomioka, Satoshi. 2010. Contrastive topics operate on speech acts. In *Information structure: Theoretical, typological and experimental perspectives*. ed. by Malte Zimmermann and Caroline Féry. Oxford University Press
- Vallduví, Enric. 1992. The informational component. New York: Garland.
- Ward, Gregory L. 1988. The semantics and pragmatics of preposing. Doctoral dissertation. University of Pennsylvania.
- Webelhuth, Gert. 1992. Principles and parameters of syntactic saturation. New York, NY: Oxford University Press.
- Yoshimoto, Kei, Masahiro Kobayashi, Jiroaki Nakamura and Yoshiki Mori. 2006. Processing of information structure and floating quantifiers in Japanese. In *New Frontiers in Artificial Intelligence*. ed. by Takahi Washio, Akito Sakurai, Katsuto Nakajima, Hideaki Takeda, Satoshi Tojo, and Makoto Yokoo. 103-110. Springer.

**Gwangrak Son**

Department of English Language and Literature,  
College of Humanities, Kyungpook National University  
80 Daehak-ro, Buk-gu, Daegu, 702-701  
Email: gson@knu.ac.kr

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